



## CASE STUDY







Project No. 2020-1-HRO1-KA229-077789









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### IMPRESSUM

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### INTRODUCTION

Based on research findings (Jacobs 1989; Lipson, et al. 1993; Cromwell 1989), European projects, and surveys addressing literacy concerns (EU HGHGL, 2012, PISA 2018, PIRLS 2016, ADORE 2009, Eurydice 2011; EU HLGEL, 2012), alongside teachers' own successful experiences in connecting subject areas, all project partners agreed on the urgent need to initiate the Erasmus+ Integrated Literacy in Action project (ILA).

The ILA Project represents a response to pressing concerns about national literacy achievement levels over the past two decades. It is set against the backdrop of a rapidly changing educational landscape, marked by a global explosion of knowledge and concerns about the relevance of curricula in most European countries. These factors, together with the established need of 21st century students to draw knowledge from different fields and solve interrelated problems, directed the main goals of the project towards the Integrated knowledge approach.

Erasmus+ ILA Project places a strong emphasis on the ability of young learners to make connections, solve problems from multiple perspectives and incorporate information from different fields. Integration is seen as a means of bypassing the acquisition of isolated facts and turning knowledge into practical learning tools, as well as the acquisition of comprehensive literacy skills and competences. While endeavoring to afford students the opportunity to encounter vital skills repeatedly, rather than restricting comprehension strategies to a single subject, the ILA Approach propagates their application across multiple disciplines. By bridging subject-matter divides and emphasizing overarching concepts, ILA integration promises a dynamic educational experience. It empowers students to engage in meaningful, real-world activities, nurturing a deeper understanding and retention of information. This, in turn, augments their literacy competencies and bolsters intrinsic motivation. The Integrated curriculum approach is an ideal environment for valuable instructional methodology of cooperative learning and the concept of interdisciplinary classroom. This involves creating challenging and meaningful tasks situated in real-life contexts, fostering growth, reflection, and exposure to diverse perspectives for both teachers and students. Such a learning environment successfully supports academic and social needs and fosters stronger student/teacher relationships.

Erasmus+ ILA project also addresses key questions frequently posed in front of the teachers. As the project results unfolded, teachers become part of the quest for the answers related to: Relevance of the curricula; Reduction of duplication of skills and concepts in different subject areas; Values connected to the in-depth knowledge of subjects; Increase relevance for the learners, given a real-life context; Skills that can be transferred to other disciplines and to the real life context; Development of multiple perspectives leading to a more integrated knowledge base; Constructivist view of learning (instead of teaching isolated facts). Active participation in the ILA Project Open Class activity presented teachers from 4 partners schools with the opportunity to grow, exchange knowledge and experiences, reflect and be exposed to the richness that different perspectives offer, finally leading to the reinforcement of their teaching role and profession.

Final ILA Project outcomes are encapsulated in a comprehensive Case Study containing LTTAs results and experiences, Integrated curriculum 32 lesson plans across four subject areas: Media, Finance, Science, and Mathematic and the results from Pilot activities.

Throughout the duration of Erasmus+ ILA Project 114 students and 52 teachers were directly involved in the planned Project activities: LTTA organization and participation, Expert Teachers Open Class, Pilot activities and Dissemination. Many other stakeholders (school staff, management, principles, parents, educational stakeholders) participated as well in supporting activities and dissemination efforts so that their contribution can help the project in achieving its goals and purposes.

In the long term, participation in the ILA Project is anticipated to have a transformative impact, not only on 4 partner institutions but wider to National and European level. The project's methodologies and outcomes are expected to be integrated into regular Curricula, influencing educational strategies at a systemic level. Ultimately, the ILA Project aims to contribute to the excellence and visibility of schools, not only locally but on a broader European scale. The Erasmus+Integrated Literacy in Action Project is poised to be a catalyst for positive transformation, not only in the immediate learning experiences of students and teachers but in the broader landscape of education policy and practice. Through a commitment to integration, we are embarking on a journey towards a more holistic, connected, and effective approach to learning.

Jelena Crnek ILA Project Coordinator









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### ERASMUS+ ILA INTEGRATED CURRICUILUM

The Erasmus+ ILA Integrated Curriculum is a comprehensive and innovative educational framework designed to address the evolving needs of students in a rapidly changing world. It focuses on the integration of knowledge across different subject areas, with a particular emphasis on media literacy, financial literacy, science literacy, and mathematical literacy. Here's a breakdown of what the ILA Integrated Curriculum entails:

Interdisciplinary Approach: The ILA Integrated Curriculum breaks down the traditional barriers between subjects and fosters interdisciplinary connections. It recognizes that real-world challenges and opportunities often require a holistic understanding that goes beyond the confines of individual subjects.

Four Modules: The curriculum is structured around four distinct modules, each dedicated to one of the four key literacy areas – media, financial, science, and mathematics. These modules serve as the building blocks of the curriculum, offering a deep dive into each literacy domain.

Activity-Based Learning: Within each module, students engage in various activities that are designed to be hands-on, interactive, and engaging. These activities are carefully crafted to encourage critical thinking, problem-solving, and creativity. They include tasks such as creating presentations, conducting surveys, designing questionnaires, developing project logos, analyzing data through graphs, and producing educational videos.

Guidance and Support: To facilitate learning, an Activity Leader guides students through each module. They provide instructional materials, including explanatory videos that introduce the module's main theme and specific tasks for students. Clear guidance instructions are also provided, outlining the objectives and expectations for each activity.

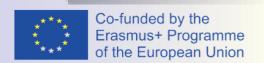
Student Collaboration: The ILA Integrated Curriculum places a strong emphasis on collaboration among students. It encourages them to work together within their own schools and across partner schools, fostering a sense of community and global perspective. Collaborative projects and activities promote peer learning and the exchange of ideas.

Preparation for LTTA: The curriculum includes pre-work activities (Pre-work 1-4), which serve as a preparatory phase for students and mentor-teachers. These activities aim to familiarize participants with the core concepts and topics of each module, ensuring that they are well-equipped to fully engage in subsequent Learning, Teaching, and Training Activities (LTTA) 1-4.

Holistic Learning Outcomes: Through the ILA Integrated Curriculum, students not only gain subject-specific knowledge but also develop essential skills such as critical thinking, information literacy, communication, and collaboration. This holistic approach prepares them to navigate complex challenges and succeed in a rapidly changing society.

Future-Ready Education: By promoting integration, the ILA Integrated Curriculum aligns with the goal of preparing students for the demands of the 21st century. It equips them with the ability to connect knowledge across disciplines, adapt to new situations, and become lifelong learners.

In essence, the ILA Integrated Curriculum redefines education by transcending the traditional boundaries of subject matter. It empowers students to become well-rounded, adaptable individuals capable of thriving in the interconnected, information-rich landscape of the modern world.









# INTEGRATED CURRICULUM - LESSON PLANS

## MODULE 1 MEDIA LITERACY









## MATHEMATICAL LITERACY - FAKE NEWS

Title	Fake news
Subject area	Mathematical Literacy
Description of educational activity	Duration: 3 hours Students age: 15 - 17 Organization of the class of pupils: frontal, individual, group work, individual presentation  The aim of the lesson: The aim of this lesson is for students to develop critical thinking about news sources with the focus on fake news. Students will create mathematical models of news spreading and describe the speed of news spreading using graphical and computational methods.  Evaluation and assessment method: Evaluation at the end of activity by students making presentations about the outcomes of the activity. Also, the students complete an evaluation form at the end of the activity. Peer assessment  Support materials: Internet ICT mathematical literature  Handouts: presentations student worksheets  Description of the activities Students are shown an introductory presentation on fake news to explain the term or to jog their memory on it Students are given some examples of real and fake news and they decide
	which of them are real and which of them are fake  Students the discuss the danger of fake news  Students think about the process of news spreading (think-pair-share activity) and whether it is connected to mathematical concepts  Students are given real life scenarios – fake news examples – so that they first predict and then calculate the speed of news spreading; students work individually – they do graphical and computational calculations  Students are given set time values  Once they do calculations, they compare the results with their predictions and comment on the results (if they are surprised, if they expected them)  Students discuss how mathematical calculations can be used in real life to prevent fake news spreading or how the mathematical knowledge can be used for investigative journalism  Students work in groups (6 groups of four students) – their task is to create fake news scenarios (each group one scenario) and prepare some tasks that other groups will do  Students do tasks prepared by other groups, they do calculations and make posters predicting the speed of news spreading for each fake new scenario where they include graphs  Class discussion – students comment on the results and on their findings









## **MATHEMATICAL** LITERACY - FAKE NEWS

Connection to curriculum	Grade: 1st - 4th Curriculum: Mathematical Literacy  Skills:     digital skills     analyzing skills     computational and graphical models     data analysis     teamwork     critical thinking skills     creating argumentation from the data  Knowledge: Students will understand the importance of data analysis through graphical and computational models, create a mathematical model of news spreading and describe the speed of news spreading using graphical and computational methods.  Competences: Students will employ an analytical approach to problems and strengthen the ability to argue.
Bibliographic reference to be used during the activity	Dakić, Elezović: "Matematika 1", Element – Zagreb, 2021. Dakić, Elezović: "Matematika 2", Element – Zagreb, 2021.
Short description of digital sources	Mentimeter PowerPoint
The expected Outcomes of the Integrated Lesson 1 - Fake news	
Results/ What we learned / Outcomes	Mathematical Literacy At the end of the lesson students will be able to predict news spread using mathematical models and interpreting data. They will be able to present the results of their work in the form of a graph. They will develop their critical thinking skills.
Effect of the Activity on students and teachers	
	Mathematical Literacy  Students will learn to present the data graphically and interpret them.  Teachers will learn there are new and different ways of teaching, a fresh



Conclusions and

recommendations



At the same time, both teachers' and students' creativity will be boosted since the teachers will be guiding and encouraging students to analyze data and think of new creative solutions to the problems. Through the process of exchanging ideas and encouraging discussion and argumentation, they will also gain some new

perspective and think outside of the box.

insights into the subject matter.





## MATHEMATICAL LITERACY - YOUNG INFLUENCERS

Title	Young Influencers
Subject area	Mathematical Literacy
Description of educational activity	Duration: 3 hours Students age: 14 - 16 Organization of the class of pupils: frontal, individual, group work  The aims of the lesson: developing critical thinking about influencers and their impact on young people; using mathematical skills and competencies to talk about the influencers and emerging professions.  Evaluation and assessment method: Evaluation at the end of activity by students making presentations about the outcomes of the activity. Also, the students complete an evaluation form at the end of the activity. Peer assessment  Support materials: Internet digital tools  Handouts: presentations Students worksheets  Description of the activities: Students worksheets  Description of the activities: Students vote on poll (the most interesting emerging professions) Short class discussion on the results – comment on and analyze the results presented in pie chart Students are shown an introductory presentation on influencers – comparison between foreign and Croatian influencers Students are presented with some data on much money influencers make – they try to determine if there are any statistical data that could be used to predict and calculate the success of a marketing campaign through influencers Students are given the task to calculate the income of an influencer using the given data Students are given another task – to calculate mean income of four influencers using the given data Students are given another task – to calculate mean income of four influencers using the given data Students are given another task – to calculate mean income of four influencers using the given data Students are given another task – to calculate mean income of four influencers using the given data Students are given another task – to calculate mean income of four influencers using the given data Students are given another task – to calculate mean income of four influencers using the given data Students are given the task to draw a 'box and whiskers' box using the given data Students put themselves in the position of an influ









## MATHEMATICAL LITERACY - YOUNG INFLUENCERS

Connection to curriculum	<ul> <li>Grade: 1st - 4th</li> <li>Curriculum: Mathematical Literacy</li> <li>Skills: <ul> <li>digital skills</li> <li>analyzing skills</li> <li>pie chart analysis, a box and whiskers paradigm</li> <li>data analysis (statistics)</li> <li>teamwork</li> <li>critical thinking skills</li> <li>creating argumentation from the data</li> </ul> </li> <li>Knowledge: Students will understand the importance of statistical data analysis using 'box and whiskers paradigm' and arithmetic mean</li> <li>Competences: Students will employ an analytical approach to problems and strengthen the ability to argue. Also, they will be able to process statistical data using "box and whiskers paradigm" and arithmetic mean</li> </ul>
Bibliographic reference to be used during the activity	Dakić, Elezović: "Matematika 1", Element – Zagreb, 2021.
Short description of digital sources	Google images, Mentimeter, Canva, PowerPoint

#### The expected Outcomes of the Integrated Lesson 1 - Fake news

Results/ What we learned / Outcomes

At the end of the lesson students will be able to predict how young influencers can use mathematical knowledge and skills to make a living and to be as successful as possible. At the same time, students will be presented with different ways in which to apply their mathematical skills. They will realize the importance of acquiring mathematical knowledge to improve their everyday life.

#### Effect of the Activity on students and teachers

### Conclusions and recommendations

#### **Mathematical Literacy**

Students will learn to process statistical data using the "box and whiskers paradigm" and to calculate arithmetic mean. They will realize the importance of acquiring mathematical knowledge to improve their everyday life.

Teachers will learn there are new and different ways of teaching, a fresh perspective and thinking outside of the box, especially when it comes to students' everyday life and topics that are of interest to them.









Title	Fake news
Subject area	Media Literacy
	Duration: 6 hours (270 min) Students age: 15 - 17
	Organization of the class of pupils: frontal, individual, group work
	The aim of the lesson:
	This lesson plan on "Fake News" aims to equip students with valuable skills and competences related to media literacy and critical thinking.
	Students will analyze the problems and potential consequences associated with the spread of fake news
	Students will identify sources and source criticism and learn how to interpret
	<ul> <li>and decode propaganda messages</li> <li>Students will consider their own personal role in the spread of misinformation</li> </ul>
	and examine the negative consequences of such behavior.
	Support materials:  Internet
	· Art
	· Youtube clips
	Handouts:
Description of educational activity	<ul><li>presentations</li><li>photos</li></ul>
	Description of the activities  1. The first part of the lesson describes sources and source criticism
	Introduction to the lecture by showing one of the short videos:
	How can you know which news to trust? https://www.youtube.com/watch?
	v=SNi1ijwgVmc  How can I spot the fake news? https://youtu.be/0vjar1iqK-c
	Teacher gives a lecture (30 min) to the class introducing and briefly explain the
	topics: - What is a source?
	- What is a source? - Source criticism
	- Criteria for source criticism
	- How to check source?
	- Biased information – online risks
	Students are introduced to useful resource verification sites, search engines ((listed below) and common questions when surfing the web









#### Student exercises:

- · Exercise 1: Your school's website
- Exercise 2: Practise the source-critical concepts
- Exercise 3: Discuss difficulties associated with examining online sources
- Exercise 4: The blog as source
- Exercise 5: Who owns the domain?
- Exercise 6: How come Wikipedia ranks so high on Google?
- 2. In the second part of the lesson we're talking about propaganda. Introducing students to the techniques will enable them to become better at interpreting and decoding propaganda messages.

Now that your students have grasped how to regard sources critically, we will look at how different techniques that

involve language, imagery and sound are used to push people's opinions, values and actions in a particular direction.

Teacher introduces the five propaganda techniques:

- 1. Appeal to people's emotions
- 2. Attack the opponent (create an 'us' and a 'them')
- 3. Simplify, distort and lie about facts
- 4. Appeal to a specific audience
- 5. Repeat an idea or a message
- 3. Third part of the lesson lesson takes a closer look at the subject of source criticism and propaganda by letting the students create their own propaganda film, based on an article containing fake news.
  - · Students are devided into groups of at least 4-6
  - · You can choose any article that you prefer.

(You can visit https://www.snopes.com/category/ facts/fake-news/ or http://weeklyworldnews.com/ for suggestions, or you can write your own fake article)

· The article should contain a threat to the public

(Recommendation is you choose something harmless and non-political).

- The information source should be unknown to your students.
- Let the students read the article you have chosen.
- The students' assignment is to convey what could happen if no one deals with the problem described in the

#### article.

 Ask them to follow the film recipe described below and make their propaganda film as effective as possible.

#### Recipe for propaganda film:

#### Ingredients

1 tablet or smartphone

1 app for film editing Access to library of free sound effects and music (e.g. https://www.jewelbeat.com/)

2 'witness' actors who can describe what happened

1 'expert' actor who can talk about the event 10–15 still images from the web



Description of

educational activity







1 narrative voice 1 fake news article

1 symbol to represent the sender of the film (you and your agenda)

· Ask them to follow the instructions:

#### Instructions

- · Read the article and identify the threat.
- · Who is the scapegoat in the article? Determine what makes people among the public afraid of the scapegoat.
- Select two people to act as witnesses. Write down a few short sentences for them to say.
- · Use quotes from the article or make up your own.
- · Select one person to act as an expert. Write down a few statements for him or
- · Use guotes from the article or make up your own.
- · Choose sentences from the article or add your own to be used for the narrative
- · Find appropriate stills from the internet. Pictures of the scapegoat, damage, images for setting the mood, etc. Make sure you don't use copyright-protected
- · Search for Creative Commons pictures that you can use.
- · Search for diagrams and graphs you can use to support your statement. The diagrams don't have to relate to the subject matter.
- · Draw your symbol the image that represents you as the sender. Either draw it using an app or draw it on paper and take a photo of the drawing.
- · Use the camera on your phone or tablet to film the two witnesses and the expert.
- Write the storyboard
- · When you are finished, import all images and film clips to the timeline in the film editing app.
- · Place the material on the timeline, following the same order as in the storyboard.
- Decide for how long each still image will be shown. Between 1 and 4 seconds is usually a good length of time depending on what tempo you want for the film.
- · Access to library of free sound effects and music (e.g. https://www.jewelbeat.com/)
- · Place your symbol at the end.
- · Record the narrative voice either directly in the film editing app or record it separately and import it to the timeline.
- · Choose some dramatic music to enhance the threatening and menacing mood. Sites for sounds include

www.jewelbeat.com, www.incompetech.com and www.findsounds.com.

· Add the sounds and music to the timeline.

#### Finished!

#### 1 film – approximately 4 class periods)

(The schedule below is only a suggestion. Feel free to plan the filmmaking in any way you prefer)

Class period 1: Read the article, explain the assignment and introduce the film recording and film editing app.

Class period 2: Planning and recording/downloading from web.

Class period 3: Editing in the film app.

Class period 4: Presentation of finished films and discussions.



Description of

educational activity







## MEDIA LITERACY-FAKE

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	Questions for discussion after assignment in connection with the screening of the

Description of educational activity student films:

- . Can you find any of the propaganda techniques in the film (appeal to emotions, us and them, simplify and slant, address a specific audience)?
- · Were the witnesses believable? Why/why not?
- · Did the still images from the web add to the message of the film? Why/why not?
- · Did the graphs or diagrams add to the message? Why/ why not?
- · Did the music and sound effects add to the message? Why/why not?
- How could the message of the film have been made stronger?
- If you wanted to repeat this message to as many people as possible, how would you go about it?
- · Let your students post the finished videos on different social media and arrange a competition, either between the groups in your class, or between classes in your school. You can let students vote or base the competition on the number of likes.

Grade: Secondary, 2. - 4. Curriculum: Media Literacy

Students will gain a range of knowledge, skills, and competences from this lesson plan on "Fake News" They will acquire:

#### Knowledge:

Media Literacy Knowledge: Students will understand the concept of media literacy, including its importance in the digital age.

Source Evaluation: They will acquire knowledge of how to critically evaluate sources for credibility and reliability.

Propaganda Techniques: Students will learn about common propaganda techniques used in media and how to identify them.

Connection to curriculum

Misinformation Awareness: They will gain awareness of the prevalence of misinformation and fake news in digital media.

Critical Thinking Concepts: Students will grasp critical thinking concepts, such as questioning information, identifying biases, and analyzing messages.

#### Skills:

Source Evaluation Skills: Students will develop the skills to critically evaluate online sources for accuracy and credibility.

Critical Thinking Skills: They will enhance their critical thinking skills by analyzing media content and propaganda messages.

Digital Competence: Through the creation of propaganda films, students will gain digital competence, including video editing and multimedia content creation skills.

Media Production: They will acquire skills in media production, including video editing, narration, and the use of visual and auditory elements.









Ethical Media Use: Students will practice ethical media use by considering the consequences of spreading false information.

Skepticism: They will become more skeptical consumers of media content, learning to fact-check and verify sources.

Digital Empowerment: Students will experience the empowerment that comes with using digital tools and platforms to convey messages.

#### Competences:

Media Literacy Competence: This lesson plan contributes to the development of media literacy competence, enabling students to navigate the digital media landscape effectively.

Connection to curriculum

Critical Analysis Competence: Students will develop competence in critically analyzing media content, identifying propaganda techniques, and evaluating the effectiveness of messages.

Digital Citizenship Competence: They will gain competence in responsible digital citizenship by understanding their ethical responsibilities in the digital realm.

Information Literacy Competence: Students will develop information literacy competence, which includes the ability to distinguish between credible information and misinformation.

Communication Competence: Through the creation of propaganda films, students will enhance their communication competence by conveying messages effectively through multimedia content.

These knowledge, skills, and competences are essential in the digital age, where information is abundant, and the ability to critically assess and create media content is valuable for both personal and professional development.

Bibliographic reference to be used during the activity

/

Short description of digital sources

How can you know which news to trust? - https://www.youtube.com/watch? v=SNi1ijwgVmc

www.findsounds.com.

www.incompetech.com

https://www.jewelbeat.com/

http://weeklyworldnews.com/

How can I spot the fake news? - https://youtu.be/0vjar1iqK-c

images.google.com

www.tineye.com

www.iana.org/domains/root/db/

whois.com

www.blogspot.com

Startpage.com

Duckduckgo.com

https://www.snopes.com/category/ facts/fake-news/









#### Expected Outcomes of the Integrated Lesson 1 - Fake news

#### **Media Literacy**

The lesson plan on "Fake News" offers several valuable results, lessons, and outcomes for students:

Source Evaluation Skills: Students learn how to critically evaluate the credibility and reliability of sources. They understand the importance of verifying information from multiple sources before accepting it as true.

Understanding Propaganda Techniques: Students become familiar with common propaganda techniques used in media, including emotional appeals, creating "us vs. them" narratives, simplification, distortion of facts, and repetition. They can recognize and analyze these techniques in various forms of media.

Awareness of Misinformation: Students develop a heightened awareness of the prevalence of misinformation and fake news in digital media. They learn to be cautious consumers of online content and are less likely to be misled by false information.

Critical Thinking: The lesson plan promotes critical thinking skills as students analyze fake news articles and create their own propaganda films. They learn to question information, identify biases, and think critically about the messages they encounter.

Digital Competence: Through the process of creating propaganda films, students gain digital competence. They become proficient in using digital tools and applications for video editing, sound effects, and multimedia content creation. Media Creation Skills: Students acquire skills in media production, including video editing, narration, and the use of visual and auditory elements to convey messages

Ethical Media Use: The lesson plan encourages ethical media use by highlighting the potential consequences of spreading false information. Students understand the ethical responsibility of being accurate and responsible digital citizens.

effectively. These skills are valuable in the digital age.

Increased Skepticism: Students become more skeptical consumers of media content. They are less likely to accept information at face value and are more inclined to fact-check and verify sources.

Digital Empowerment: By creating their own propaganda films, students experience the empowerment that comes with using digital tools and platforms to communicate messages. They realize their ability to influence and engage with digital media.

Discussion and Debate: The lesson plan promotes classroom discussions and debates about media literacy, fake news, and propaganda. Students engage in meaningful conversations about the impact of media on society.

Results/ What we learned / Outcomes









#### Expected Outcomes of the Integrated Lesson 1 - Fake news

Media Awareness: Students gain a deeper understanding of the role of media in shaping public opinion and behavior. They recognize the power of media messages and their potential to influence individuals and communities.

Critical Analysis of Media: Through the screening and discussion of student-created propaganda films, students learn to critically analyze media content, identifying propaganda techniques and evaluating the effectiveness of messages.

Results/ What we learned / Outcomes

Media Literacy Competence: The lesson plan contributes to the development of media literacy competence, enabling students to navigate the digital media landscape with confidence and discernment.

In summary, this lesson plan empowers students with media literacy skills and critical thinking abilities, enabling them to navigate the digital information landscape effectively. It encourages responsible digital citizenship and equips students to distinguish between credible information and misinformation in the digital age.

#### Effect of the Activity on students and teachers

#### **Media Literacy**

Impact on Students:

Media Literacy Skills: The lesson plan enhances students' media literacy skills. They learn how to critically evaluate sources, identify propaganda techniques, and discern fake news from reliable information.

Critical Thinking: Students develop critical thinking skills as they analyze and deconstruct propaganda messages. They become more discerning consumers of information and learn to question what they encounter online.

Conclusions and recommendations

Digital Competence: Through the creation of propaganda films, students gain digital competence, including video editing skills, using sound effects and music, and working with various digital tools and platforms.

Creativity: The film-making aspect of the lesson plan fosters creativity as students plan and produce their propaganda films.

They learn how to convey messages effectively through multimedia content.

Collaboration: Group work in creating the films promotes collaboration and teamwork among students, as they work together to convey a message using multimedia elements.

Awareness of Misinformation: Students become more aware of the prevalence of misinformation and fake news in the

digital age. They understand the potential consequences of spreading false information.









#### Effect of the Activity on students and teachers

#### **Impact on Teachers:**

Enhanced Media Literacy Expertise: Teachers gain expertise in teaching media literacy concepts and techniques. They become more proficient in guiding students in critically evaluating online sources and recognizing propaganda.

Digital Pedagogy: The lesson plan encourages teachers to incorporate digital pedagogy into their teaching practices. They learn how to use digital tools and platforms effectively for educational purposes.

Creative Teaching Methods: Teachers learn creative teaching methods that engage students and encourage active learning.

This can lead to more dynamic and effective classroom instruction.

#### Conclusions:

Critical Media Literacy: The lesson plan effectively promotes critical media literacy by teaching students to question sources,

identify propaganda techniques, and create their own media content.

Engagement and Learning: Engaging students in creating propaganda films not only teaches media literacy but also reinforces learning through active participation and creativity.

Conclusions and recommendations

Relevance to Real Life: The lesson plan addresses a critical issue in the digital age – the spread of fake news and misinformation. It equips students with skills they can apply in their everyday lives.

#### Recommendations:

Professional Development: Provide teachers with professional development opportunities focused on media literacy, digital pedagogy, and creative teaching methods.

Access to Technology: Ensure that both teachers and students have access to the necessary technology and digital tools for creating propaganda films, including video editing software.

Continued Exploration: Encourage teachers to continue exploring and incorporating media literacy into their curriculum. This can involve adapting the lesson plan to different topics or expanding it to cover other aspects of media literacy.

Promotion of Ethical Digital Citizenship: Emphasize the importance of ethical digital citizenship, responsible sharing, and critical thinking in the digital realm. These principles should be integrated into the broader curriculum.

Evaluation and Assessment: Develop assessment methods that evaluate students' media literacy skills and their ability to critically analyze and create media content. Consider rubrics that assess critical thinking, creativity, and digital competence.

In conclusion, this lesson plan effectively addresses the critical issue of fake news and misinformation in the digital age. It empowers students with media literacy skills, critical thinking abilities, and digital competence. For teachers, it offers opportunities to enhance their expertise in media literacy education and creative teaching methods.









Title Young Influ	Jencers
Subject area Media Literacy	/
Duration: 6 ho Students age:  Organization of The aim of the To make stock throughou opinion.  To encourage and consider to Support mate: Internet: Youtube cl. Text Photos  Handouts: presentation  Description of educational activity  Description of 1. Exploring Informakers are not engages stude Paul II, Princes these figures where these figures where always eand powerful prince influence. In bigroup of person reputation, poweight than of emergence and creators of purposition of pagined influence.	or (270 min) 15 - 17  of the class of pupils: frontal, individual, group work  elesson: cudents aware that influencers are not new occurrence but that thistory different persons have influenced and shaped public  age students to search content on the internet and finding credible e sources of information.  them to analyze modern-day influencers on various social networks, the impact and responsibilities of being an influencer.  rials:  ips









#### Student exercises:

#### Exercise 1:

- Students will explore who Rosa Parks, Pope John Paul II, Princess Diana and Michael Jordan is.
- Through the discussion, they will consider whether they were also so-called influential people, ie. creators of public opinion.
- · Argue why yes or no:

What period did these people live in? What were they doing? How did they influence other people?

#### Exercise 2:

Students will explore who were the influencers through the different decades of the twentieth century.

What did they do?

When did they have special influence?

2. Examining Modern-Day Social Media Influencers: Students research and analyze popular influencers on various social networks like YouTube, Instagram, and TikTok. They explore the influencers content, follower count, duration on the platform, and reasons for their popularity. This activity helps students understand the characteristics and diversity of modern-day influencers.

Teacher: Today, social networks are extremely popular among children and young people. Their popularity is different from states to states, but large differences have also been observed at the age of the user. The most popular are social networks on the world of Facebook, Instagram and TikTok, and are very popular as well correspondence applications such as WhatsApp and Facebook Messenger. It has an important place and YouTube, which is right behind in terms of number of users Facebook. Every social network has its characteristics and peculiarities by which it differs from others and why each of them attracts a different group user. The difference in approach is best seen through the most popular influencers on each of them.

For example, while on YouTube the most popular influencer plays video games and leads his followers through the world of video games, on Instagram it is one of the world's greatest athletes, and on TikTok a girl engaged in dance.

· Make the introduction by showing:

The documentary movie Influencers (Fake famous) directed by Nick Bilton https://www.youtube.com/watch?v=2B7m-ARHz0c

(The documentary answers key questions about how easy and difficult it is to become an influencer on social networks,

specifically on Instagram, and how important creativity is for success, and how important financial resources and good strategy are.

or

Short video: What's Going On With TikTok? https://www.youtube.com/watch?v=Sf7Xjrmb6Kc&t=270s

#### Student exercises:

Exercise 1:

Students Explore who the most popular influencers are on social networks and platforms (YouTube, Instagram and TikTok).



Description of

educational activity









Once they find the most popular influencers on each of the above network, they will explore the following:

- a. What do they do?
- b. How old are they?
- c. What content do they publish?
- d. How many followers do they have?
- e. How long do they have their profiles open on that network?
- f. Were they known to the public even before they became influencers on social media?
- g. Why do you think they have become so popular?

#### Exercise 2:

Students will compare the channel of the most popular youtube on YouTube and his Instagram profile.

- a. How do they differ?
- b. What information does that influencer publish on certain social media, and what kind on the other?
- c. What can we conclude based on that about the characteristics of these media?

#### 3. Part of the Lesson plan:

1. Classifying Influencers by Type and Impact: This activity classifies influencers based on the number of followers (micro- influencers, macro-influencers, mega-influencers) and the type of content they create (e.g., travel, gaming, fashion, fitness).

It involves a survey to gauge students' attitudes towards influencers and their motivations for following them.

- 2. Reflecting on the Consequences of Influencer Behavior: Includes a discussion on influencers who engage in risky behavior for popularity and the consequences of such actions. This discussion encourages students to reflect on ethical boundaries and the motivations behind influencers actions.
- 3. Exploring the Pressure of Perfection: Students watch a video titled YOU LOOK DISGUSTING and engage in a discussion about body image, self-esteem, and the pressure for perfection on social media. This activity prompts critical thinking about the effects of idealized images on mental health.

#### Student exercises:

#### Exercise 1:

Students will fill in the survey with the following questiones/statements:

- I spend hours and hours a day watching the posts of popular influencers.
- I follow influencer posts to learn something new.
- I follow popular influencers to have something to talk about with friends and peers.
- I follow influencers on social media just because most of my friends follow them.
- I follow influencers when I'm bored.
- I follow influencers who play video games so that I can go through games that I actively play faster and easier.
- I follow influencers because it seems to me that they are the only ones who understand me and love the same things
- One day I would like to be an influencer myself.
- I usually follow influencers on TikTok.

Description of educational activity









- Influencers on social media are my biggest idols.

(They should mark claims which are the most, or which do not apply at all to them so that the number 1 indicates the statement that is the most refers to them, then number 2 the following statement and so in order until they come to number 10 and the claim that is the least relevant to them.)

Then they compare the results with the student next to them.

After filling out the questionnaire teacher encourages a conversation and analyzes which answers are the most chosen by the students as those who are most relevant to them.

#### Exercise 2:

- Students will analyze influencers posts: published photographs; whether they
  advertise certain products; when advertising a product or service; whether it is
  stated that it is an advertisement for a certain companie or they avoid to
  mention; do they show their own life perfect; whether they use filters and
  programs for photo editing?
- Students will compare influencers posts with their own posts and posts of their friends - in what they are similar, and in what they are different?

In order to gain popularity, many influencers do reckless and sometimes very dangerous things.

• Students will listen the following recording https://www.linguahouse.com/esl-lesson-plans/general- english/influencer-pleads-

guilty/audioplayer/influencers\_bemp3 (news story looking at the July 2021 arrest of Hushpuppi, a social media influencer for alleged crimes of money laundering).

• After listening, they will discuss the justification of his actions. Was it wise what he did? Where the boundaries are?

Why influencers do that?

#### Exercise 3:

- Students will see the short video YOU LOOK DISGUSTING, https://www.youtube.com/watch?v=WWTRwj9t-vU
- After watching the video, start a conversation and answer the following questions:
- a. How did the children feel watching the video?
- b. Have they ever participated in a similar situation themselves in which they humiliated a person for posting on social networks?
- c. Have others ever treated them like that on social networks? How did they feel? What did they do? Who did they turn to for help?
- d. How often their friends edit photos and use a number of filters before theirs posts on social networks?
- e. Why people do that?
- f. Is false perfection more important than honesty and reality?

For this Exercise you can choose other channels as well:

Like Nastya - https://www.youtube.com/channel/UCJplp5SjeGSdVdwsfb9Q7lQRyan's World -

https://www.youtube.com/channel/UChGJGhZ9SOOHvBB0Y4DOO\_w EvanTubeHD - https://www.youtube.com/user/EvanTubeHD



Description of

educational activity







Description of educational activity	<ul> <li>4. Workshop: Becoming an Eco-Influencer! This workshop encourages students to create an influencer profile focused on environmental protection. It promotes awareness of environmental issues and encourages students to consider the positive impact they can have as influencers in advocating for environmental causes.</li> <li>For this workshop, participants will need a smartphone, tablet, laptop or computer with internet access.</li> <li>At the beginning of the workshop, discuss the current state of the planet, various environmental initiatives and the problems we face as a society when it comes to preserving the environment. Raise awareness of the need to act on environmental protection through conversation.</li> <li>Suggest that participants create a profile that can be called Influencer (or come up with a sound name for the profile), and suggest how influencers would contribute to nature and environmental protection and what topics as eco-influencers would highlight, promote and advocate.</li> </ul>
Connection to curriculum	Grade: Secondary, 2 4. Curriculum: Media Literacy  Knowledge: Students developed the ability to critically analyse the messages of influencers and recognize unreliable information.  Skills: Recognise the skills used by succesful influencer and apply them for students needs/purposes.  Competences: By using previously gained knowlidge make influencer post for good purposes.
Bibliographic reference to be used during the activity	/
Short description of digital sources	Fake famous, directed by Nick Bilton https://www.youtube.com/watch?v=2B7m-ARHzOc  What's Going On With TikTok? https://www.youtube.com/watch?v=Sf7Xjrmb6Kc&t=270s  Hushpuppi, a social media influencer https://www.linguahouse.com/esl-lesson-plans/general-english/influencer-pleads-guilty/audioplayer/influencers_bemp3  YOU LOOK DISGUSTING, https://www.youtube.com/watch?v=WWTRwj9t-vU  Like Nastya - https://www.youtube.com/channel/UCJplp5SjeGSdVdwsfb9Q7lQ  Ryan's World - https://www.youtube.com/channel/UChGJGhZ9SOOHvBBOY4DOO_w  EvanTubeHD - https://www.youtube.com/user/EvanTubeHD









Expected Outcomes of the Integrated Lesson 1 - Fake news

#### **Media Literacy**

This lesson plan effectively engages students in discussions, research, and critical thinking activities related to media literacy and influencer culture. It addresses historical and contemporary aspects of influencers and encourages students to reflect on the influence and responsibilities of being an influencer. The activities are diverse and promote active participation and reflection, fostering a deeper understanding of media influence and its impact on society.

It aligns with media literacy objectives by prompting students to critically analyze media content, identify influencer types, and consider the ethical implications of influencer behavior. It also encourages self-reflection on students own media consumption and social media habits.

#### The expected results and outcomes of this lesson plan on Young Influencers are as follows:

Increased Awareness of Historical and Modern Influencers: Students will gain an understanding of how influencers, or public opinion makers, have existed throughout history and continue to do so in modern times. They will recognize that influencers are not a new phenomenon.

Results/ What we learned / Outcomes Critical Thinking Skills: Students will develop critical thinking skills by analyzing and evaluating the impact, content, and strategies of modern-day influencers on various social networks. They will learn to question the motivations and effects of influencer behavior.

Media Literacy: The lesson fosters media literacy by encouraging students to explore the characteristics and diversity influencers on platforms like YouTube, Instagram, and TikTok. They will become more discerning consumers of media content.

Understanding Influencer Types: Students will classify influencers based on the number of followers (micro, macro, mega) and the type of content they produce (e.g., travel, gaming, fashion). This categorization will help them recognize the variety of influencer roles.

Awareness of Social Media's Influence: Students will reflect on the influence of social media on behavior, body image, and self-esteem. They will understand how idealized images and content can affect individuals and society.

Ethical Considerations: The lesson encourages students to think critically about the ethical boundaries of influencer behavior.

They will reflect on the consequences of influencers engaging in risky or harmful actions for popularity.

Self-Reflection: Through discussions and surveys, students will engage in selfreflection regarding their own media consumption and motivations for following influencers. They will consider their own role in the influencer culture.









Expected Outcomes of the Integrated Lesson 1 - Fake news

Environmental Awareness: The workshop on becoming an eco-influencer promotes awareness of environmental issues and encourages students to think about the positive impact they can have as influencers advocating for environmental causes.

Discussion and Communication Skills: Students will engage in group discussions, debates, and reflections, enhancing their communication and interpersonal skills.

Creative Thinking: In the workshop, students will use their creativity to envision and create an influencer profile focused on environmental protection.

Results/ What we learned / Outcomes Media Analysis: The lesson involves the analysis of media content, including influencer posts and videos, which helps students develop skills in critically assessing and interpreting media messages.

Peer Learning: Group discussions and comparisons with peers will foster collaborative learning and the sharing of different perspectives.

Overall, the expected outcomes of this lesson plan are to equip students with media literacy skills, critical thinking abilities, and a deeper understanding of the influencer culture and its impact on society. Students will also reflect on their own media consumption habits and consider their roles as both consumers and potential influencers.

Effect of the Activity on students and teachers

#### **Media Literacy**

#### Impact on Students:

Increased Awareness: Students gain a heightened awareness of the influence of public opinion makers and influencers throughout history and in contemporary society.

Media Literacy: Students develop media literacy skills, enabling them to critically analyze and interpret media content, including influencer posts and messages.

Conclusions and recommendations

Critical Thinking: The lesson fosters critical thinking skills, as students evaluate the motivations, strategies, and ethical considerations of influencers.

Understanding Diversity: Students learn about the diversity of influencer types and content, broadening their understanding of the influencer landscape.

Self-Reflection: Through discussions and self-assessment, students reflect on their own media consumption habits and motivations for following influencers.

Ethical Awareness: The lesson encourages students to consider the ethical boundaries of influencer behavior and the consequences of risky actions for popularity.









Effect of the Activity on students and teachers

Environmental Awareness: The workshop on becoming eco-influencers promotes environmental awareness and encourages students to engage in positive environmental advocacy.

Creative Thinking: Students use creativity to envision and create eco-influencer profiles, promoting innovative thinking.

Peer Learning: Group discussions and peer comparisons facilitate collaborative learning and the sharing of diverse perspectives.

#### Impact on Teachers:

Facilitation of Critical Thinking: Teachers experience the facilitation of critical thinking and media literacy discussions, enhancing their instructional skills in these areas.

Engagement with Contemporary Topics: Teachers engage with contemporary topics related to social media, influencers, and media literacy, allowing them to stay current with students' interests and concerns.

Promotion of Ethical Discussions: The lesson encourages teachers to facilitate ethical discussions about influencer behavior, promoting moral and ethical awareness.

Conclusions and recommendations

Promotion of Environmental Awareness: Teachers can become advocates for environmental awareness by incorporating the eco-influencer workshop into the curriculum.

#### Conclusions:

The lesson plan effectively engages students in critical discussions about media consumption, influencer culture, and ethical considerations.

It promotes media literacy skills that are increasingly important in today's digital age.

The focus on eco-influencers adds a valuable dimension of environmental awareness to the curriculum.

The lesson encourages students to think critically about the impact of their online behavior and content choices.

Recommendations:

Teachers should regularly update the lesson to include examples of new influencers and evolving social media platforms.

Encourage open and respectful discussions, allowing students to express diverse opinions about influencers and their impact.

Expand the lesson by incorporating guest speakers, such as local influencers or experts on media literacy and ethics.

Encourage students to explore positive influencer role models who promote social good and ethical behavior.

Continue to emphasize ethical considerations in influencer culture, highlighting the importance of responsible content creation and consumption.









## FINANCIAL LITERACY - FAKE NEWS

Title	Fake news	
Subject area	Financial Literacy	
Description of educational activity	Duration: 4 hours (180 min)  Students age: 15 - 16  Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The aim of the lesson is to make pupils aware of fake loan ads and make them familiar with different types of bank loans and terms important to understand them.  Support materials: Internet, Canva, Genial.ly, online game  Handouts: presentations worksheets wideo internet article  Evaluation and assessment method: Pupils create a poster depicting ways to identify fake bank loans. Also, the students complete an evaluation form at the end of the activity. Peer assessment  Effect of the activity on students and teachers: STUDENTS: Pupils can identify different types of loans they can be provided by banks to satisfy their current needs. They are able to analyze different loan ads and decide if they are fake or reliable.  TEACHERS: Teachers can apply the activities in their own subjects.  Description of the activities: 1, Brainstorming: How can fake financial news influence your financial decisions? (you can make a wrong decision about investing, pension plan, loans or mortgages or even about buying everyday items) 2, Banking system in general – Questions for discussion: a) Can you name any banks in your city? b) What do you think they are for? c) How do they make profit? d) Do you have a bank account? e) What do you use it for? f) Do you have to pay for services provided by your bank? g) Have you ever seen an ad or a commercial promoting any bank services? If yes, what did they promote?	









## FINANCIAL LITERACY - FAKE NEWS

Description of educational activity	Presentation by a teacher (cca 30 min.) – students learn about different types of banks and what they provide us with, they learn some basic terms important to understand the topic (bank accounts, cash and non-cash payments, central and commercial banks, other bank services. – learning apps exercise (10 min.), a worksheet where students work in pairs and compare student accounts in two different banks (students can find the information online) – 20 minutes  3. Loans – presentation by a teacher (30 min.) – it includes questions to ask before you decide to take a loan, types of loans, terms important to understand the topic (mortgages, interests). Feel free to ask students to compare different bank loans using the Internet.  4. Fake loan ads – how to identify them. A short presentation by a teacher, a video or an Internet article. Examples of some loan ads where students try to identify if they are fake or real.  5. Posters – students create a poster with some advice how to identify fake loan ads – final outcome. The students present their posters and advice.
Connection to curriculum	Grade: Secondary: 12. grade Curriculum: Financial Literacy  Knowledge: Pupils understand the main terms related to banks and loans and loan ads. (commercial bank, central bank, interests, mortgage, loans)  Skills: They can spot fake loan ads according to some specific characteristics. They are able to create a poster showing what to look for when trying to identify a fake loan ad. As well within these activities their social skills and Teamwork will be enhanced.  Competence: Pupils can identify different types of loans they can be provided by banks to satisfy their current needs. They are able to analyze different loan ads and decide if they are fake or reliable.
Bibliographic reference to be used during the activity	/
Short description of digital sources	<ul> <li>https://www.wbay.com/2021/09/12/consumer-alert-bbb-warns-cash-app-scams-fake-loan-offers/ (internet source about warns of cash app scams, fake loan offers)</li> <li>https://www.bajajfinserv.in/insights/beware-of-fake-loan-ads-on-social-media (internet source about fake loan ads on social media)</li> <li>https://natwest.mymoneysense.com/parents/games-interactives/fraud-uk/ (digital tool for interactive games)</li> <li>https://natwest.mymoneysense.com/media/8291/12_16_all_about_frauds_and_s cams_infographic_uk_oct21update.pdf (internet source about scams)</li> <li>https://www.bankrate.com/loans/personal-loans/personal-loan-scam-signs/ (internet source about personal loan scam signs)</li> </ul>









## FINANCIAL LITERACY - FAKE NEWS

The expected Outcomes of the Integrated Lesson 1 - Fake news

Results/ What we learned / Outcomes

#### **Financial Literacy**

At the end of the lesson students can identify different types of loans they can be provided by banks to satisfy their current needs. They are able to analyze different loan ads and decide if they are fake or reliable.

Effect of the Activity on students and teachers

Conclusions and recommendations

#### **Financial Literacy**

Students are able to identify different types of loans they can be provided by banks to satisfy their current needs. They are able to analyze different loan ads and decide if they are fake or reliable. Teachers will be provided with new resources which they can implement in their lessons and they will be encouraged to educate themselves in up to date topics and information.









## FINANCIAL LITERACY - YOUNG INFLUENCERS

Title	Young influencers
	Toolig iiiilocilocis
Subject area	Financial Literacy
	Duration: 5 hours (225 min)
	Students age: 15 - 16
	Organization of the class of pupils: frontal, individual, group work
	The aim of the lesson: The aim of the lesson is to make pupils aware of the fact that their financial decisions might be affected by many people around them including some influencers on the Internet and that not to make wrong financial decisions it is important to get some financial education and to think critically.
	Support materials: Internet, Canva, Genial.ly, TikTok
	Handouts:     presentations     worksheets     video     an online game
Description of educational activity	Evaluation and assessment method:  Pupils create a short tik-tok like video promoting importance of financial literacy and students will vote for the most influential video. Also, the students complete an evaluation form at the end of the activity. Peer assessment
	Effect of the activity on students and teachers:
	STUDENTS: Pupils will realize the fact that they cannot trust everything some influencers claim, but they need to be educated to evaluate information they get.
	TEACHERS: Teachers can apply the activities in their own subjects.
	Description of the activities:
	1. Brainstorming:     Can you name any young people who influenced you in different aspects of your life?
	Who are they? Where can we see them?
	In what ways can they influence you?  Do you think there also influencers dealing with financial topics?
	Examples:
	<ul> <li>https://www.tiktok.com/@humphreytalks?</li> <li>lang=en&amp;is_copy_url=1&amp;is_from_webapp=v1</li> </ul>
	<ul> <li>https://www.youtube.com/watch?v=rGfc8Xbeskg&amp;list=PLbS3g- Lyp6PlrzGZ7Tu3rm7VPDOkx2Bkh</li> </ul>
	https://www.instagram.com/myfabfinance/









### FINANCIAL LITERACY -**YOUNG INFLUENCERS**

Do you think they are reliable? Do you know what you can do to find out if they are? (e.g. to be financially educated)

Can anybody become an influencer? How?

Exercise: https://learnenglish.britishcouncil.org/skills/reading/intermediateb1/social-media-influencers

#### 2. Values, wants and needs

Introduction - you can start with the Marshmallow study, described in the following document. It shows how the delayed gratitude is sometimes important. You can use any form of treats.

https://financeintheclassroom.org/downloads/MarshmallowStudy.pdf

- · Ask students to write 10 of their values starting with the most important one.
- · Ask them if money belongs to their values.
- · Explain that our needs are derived from our values and that they are the engine of our economy. Without our needs we wouldn't need any money or economy.
- · Ask them how many needs they have. Let them think of the needs they have during one day
- · Explain that economy is based on the main problem: How to satisfy unlimited wants and needs with limited resources

Presentation by a teacher-values, needs and wants, Ratatouille short film showing hierarchy of needs according to Maslow – feel free to choose from two presentations according to your needs and educational goals

Description of educational activity

#### 3. Decision making

Questions to discuss:

How often do you make decisions? Think of a few decisions you have made today and write them down.

How many of them are also financial decisions?

Explain that almost all the decisions we make are also financial ones. Give some examples – deciding about the school you want to study at or whether to come to school by car, bus or on foot.

Presentation by a teacher: decision making process, factors that can influence our decisions (including young influencers), strategies.

Activity: use a T-chart from the presentation to decide about some pros and cons of an item recommended by an

influencer and a common item. (students can decide what item they want to write about e.g. make-up, clothes, electronic devices....)

Students can play a game in which they can practice their decision making skills: https://www.mycreditunion.gov/financial-resources/hit-road-financial-adventure

4. The importance of financial literacy – presentation by a teacher (cca. 20 min.) – students learn why it is important to be financially literate, they will understand the terms like financial freedom, the importance of financial planning and investing)









### FINANCIAL LITERACY -YOUNG INFLUENCERS

Description of educational activity	Discussion: What are your plans for future? Would like to buy something you don't have money for? How can you get it? Where do students get money from? ( pocket money, part-time job, Christmas and birthday presents) Do you spend all the money you earn or get? If not, what do you do with it? Pupils create a short tik-tok like video promoting importance of financial literacy and the videos will be presented on the school websites.
Connection to curriculum	Grade: Secondary: 12. grade Curriculum: Financial Literacy  Knowledge: Pupils understand the main terms related to wants, values, needs and decision making process  Skills: They will make a short video based on the knowledge gained during the lesson. In the video they will explain the importance of financial literacy. They will improve their digital skills, analyzing skills, and communication skills. They will improve their skills in creating outcomes in Canva, Genial.ly. As well within these activities their social skills and teamwork will be enhanced.  Competence: Based on the knowledge gained during the lesson pupils understand that not all financial influencers are reliable and that they need to be educated to distinguish between those trustworthy ones and those unreliable ones.
Bibliographic reference to be used during the activity	
Short description of digital sources	<ul> <li>https://www.tiktok.com/@humphreytalks? lang=en&amp;is_copy_url=1&amp;is_from_webapp=v1 (Tik-tok video for explaining mortgages)</li> <li>https://www.youtube.com/watch?v=rGfc8Xbeskg&amp;list=PLbS3g-Lyp6PlrzGZ7Tu3rm7VPDOkx2Bkh (youtube video for explaining the financial topic)</li> <li>https://www.instagram.com/myfabfinance/ (internet source about the finances)</li> <li>https://learnenglish.britishcouncil.org/skills/reading/intermediate-b1/social-media-influencers (internet source about the social media influencers)</li> <li>https://financeintheclassroom.org/downloads/MarshmallowStudy.pdf (internet source about the finances in classroom)</li> <li>https://www.mycreditunion.gov/financial-resources/hit-road-financial-adventure (internet source about the financial adventure)</li> </ul>









## FINANCIAL LITERACY - YOUNG INFLUENCERS

The expected Outcomes of the Integrated Lesson 1 - Fake news

Results/ What we learned / Outcomes

#### **Financial Literacy**

At the end of the lesson students will understand that not all financial influencers are reliable and that they need to be educated to distinguish between those trustworthy ones and those unreliable ones.

Effect of the Activity on students and teachers

Conclusions and recommendations

#### **Financial Literacy**

Pupils will realize the fact that they cannot trust everything some influencers promote, but they need to be educated to evaluate and think critically about the information they get. Teachers will be provided with new resources which they can implement in their lessons and they will be encouraged to educate themselves in up to date topics and information.









# SCIENTIFIC AND TECHNOLOGICAL LITERACYFAKE NEWS

Title	Fake news
Subject area	Scientific and Technological Literacy
Description of educational activity	Duration: 8 hours Students age: 15 - 17 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: critical thinking to struggle fake news  Support materials: Internet ICT Audio Handouts: presentations free music examples of podcast  Description of the activities: TASK 1: Introduction to the lecture by showing one of the short videos: How can you know which news to trust? - https://www.youtube.com/watch?v=SNilijwgVmc  TASK 2: Teacher from two different subjects, biology and ICT, give a lecture (30 min) to the class introducing and briefly explain the topics: Topics to start with: 1-1-Types of information disorders: misinformation, disinformation, malinformation 2-Possible causes for disinformation 3-Why is so difficult to stop the spread of disinformation? 4-Ways to stop mis and disinformation. What can you do?  TASK 3: In the biology class, we will talk about three scientific issues and some highly spread fakes about them.  Fakes about 3 topics: - climate change: Myth 1. The Earth's climate has always changed Myth 2. Plants need carbon dioxide Myth 3. Climate change is a future problem - vaccines: Myth 1: Vaccines cause autism and sudden infant death syndrome (SIDS). Myth 2: A child can actually get the disease from a vaccine. Myth 3: COVID-19 vaccines will alter my DNA - COVID 19:
	Myth 1: Youthful immunity Myth 2: Face masks don't work. Myth 3: COVID-19 is man-made.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY - FAKE NEWS

**TASK 4:** FACTS vs FAKES. In the biology class, students are distributed in teams of 3-4. Each team have to choose one issue and look for scientific evidence to fight against the three proposed myths.

**TASK 5:** In the ICT class, the teacher provides students with a very detailed presentation about how to create a podcast: radio gender, script, audio applications, tools, free music sources, etc.

- Introduction to podcasting
- How to create a podcast
- Three stages in podcast production: script, audio edition and dissemination
- Respect copyright: use resources with free public domain

**TASK 6:** FINAL PRODUCT. Students teams create a podcast based on the previous research and disseminate them on the school radio.

- APPLICATIONS:
- 1. ANCHOR: create your podcast from your mobile
- 2. VOKI: create avatars and record different voice-overs for your podcast
- 3. AUDACITY: edit your records to create your final podcast

Description of educational activity

DISSEMINATION: school radio

See the following document to amplify information:

https://drive.google.com/file/d/1XzLR8QRwcutg1QhiEU9kAYcsBGrBUp\_H/view?usp=sharing

#### **Assessment**

#### Procedures:

- Rubric for each of both areas: Biology and ICT
- Observation of individual and team work
- Evaluation of the final product of each team

#### Criteria:

- Appropriate use of digital sources of information
- Use of scientific language
- Use the scientific method in the research
- Script quality
- Use of free music resources
- Sound edition
- Appropriate vocabulary
- Pronunciation and speaking skills
- Creativity

Connection to curriculum

From Biology and ICT curricula:

#### **SKILLS**

- Learn to use reliable digital sources of information and classify the data obtained
- Critical thinking about sources and information
- Speaking fluency
- Correct use of vocabulary
- Creativity in the final products: ability for catching target audience.
- Learn to use different digital tools









# SCIENTIFIC AND TECHNOLOGICAL LITERACY - FAKE NEWS

#### **KNOWLEDGE**

- Recognize the most common diseases and infections by relating them to their causes.
- · Describe the characteristics of the different infectious agents.
- Distinguish between epidemic, endemic and pandemic and describe the characteristics of some epidemic diseases, such as influenza.
- Explain the different types of contagion of infectious diseases and distinguish the main routes of transmission of infection.
- Propose methods to avoid the contagion and spread of the most common infectious diseases.
- Explain what the immunity process consists of, assess the role of vaccines as a method of disease prevention, and
- interpret graphs that allow us to understand the characteristics of the primary and secondary immune response.
- Describe the components of the immune system and explain the role of external and internal defenses.
- Search, select and interpret scientific information from the use of various sources.
- Identify the different types of pollutants that exist and how they affect the Earth
- · Explain what climate change is and the causes that produce it.
- Use image, audio and video capture devices and use specific software to edit the information and create new materials in various formats
- · Carry out activities that require sharing resources in local and virtual networks.
- Design multimedia documents and know the publication protocols, under suitable standards and with respect for property rights.
- Collaboratively participate in various ICT tools of a social nature and manage their own.
- Use multimedia content distribution channels to host your own materials and link them to other productions.

#### COMPETENCES

- 1. Linguistics
- Find information related to the various elements involved in the immune system, health and disease, and write reports on the results achieved.
- Present communications to the rest of the class and argue for and against the conclusions obtained.

#### 2. Mathematics

- Analyze data tables and prepare and interpret graphs that help to understand
  the primary and secondary immune response, vaccination and the action of
  antibiotics; and to develop a critical and informed spirit about the
  consequences of self-medication with antibiotics.
- Construct and interpret sector diagrams that represent the centesimal composition of mortality caused by different diseases in developing and developed countries.
- 3. Social
- Assess the way in which scientific discoveries occur based on the contributions made by two historical figures: Edwar Jenner and Alexander Fleming.
- Reject activities that cause the spread of diseases, contamination and inappropriate consumption.

Show interest in the knowledge of the main healthy lifestyle habits and life skills.

### Connection to curriculum









# SCIENTIFIC AND TECHNOLOGICAL LITERACY - FAKE NEWS

Connection to curriculum	<ul> <li>4 Digital</li> <li>Search for information using available sources and organize data to answer the questions posed.</li> <li>Use ICT to prepare reports written in a word processor (Word, Pages, etc.), or make a presentation in a program designed for it (Powerpoint, Keynote, Prezzi, etc.)), a video, podcast, a set of explanatory murals or panels, etc.</li> <li>Manage and process abundant and complex information in solving real problems, making decisions and working in collaborative environments.</li> <li>Manage strategies to identify and solve hardware and software problems and take advantage of and critically analyze the information provided.</li> </ul>	
Short description of digital sources	Types of information disorder https://allea.org/wp-content/uploads/2021/04/Fact-or-Fake-Discussion-Paper.pdf  Climate change https://www.wwf.org.uk/updates/10-myths-about-climate-change  Vaccines https://www.aaaai.org/tools-for-the-public/conditions-library/allergies/vaccine-myth-fact  COVID 19 https://www.europol.europa.eu/covid-19/covid-19-fake-news  Creating a podcast https://drive.google.com/file/d/1XzLR8QRwcutg1QhiEU9kAYcsBGrBUp_H/view? usp=sharing	
The	expected Outcomes of the Integrated Lesson 1 - Fake news	
Results/ What we learned / Outcomes	Scientific and Technological Literacy  At the end of the lesson students will develop a more critical attitude against sources of information related to critical and important scientific issues. They will learn how to disseminate their ideas using media tools as well.	
Effect of the Activity on students and teachers		
Conclusions and recommendations	Scientific and Technological Literacy  Students are now aware that not all the available information is true. They are more committed about the necessity to contrast the information sources in order to become responsible citizens.  Teachers have learnt that working about fake news vs real facts is a very good and appealing approach for learning.	









# SCIENTIFIC AND TECHNOLOGICAL LITERACYYOUNG INFLUENCERS

Title	Young Influencers
Subject area	Scientific and Technological Literacy
Description of educational activity	Duration: 9 hours Students age: 14 - 16 Organization of the class of pupils: frontal, individual, group work  The aims of the lesson: - to promote healthy lifestyle - critical thinking about influencers and their impact  Support materials: - Internet - ICT - Video - School books  Handouts: - presentations - free music - maps - examples of videos  Description of the activities  TASK 1: Introduction to the lecture by showing one of the short videos from a very well know influencer of your own country. In this case from Spain, Ibai Llanos: https://www.huffingtonpost.es/entry/ibai-llanos-ser-youtuber-streamer_es_6Odled7ee4b038d5b9acc3f2  TASK 2: Teacher from two different subjects, Biology and Physical Education (PE), give a lecture to the class introducing and briefly explaining the topics:  Topics to start with: 0.1. Healthy diet 0.2. Drugs and alcohol 0.3. Nutritional diseases 0.4. Consequences of both, no physical activity or obsessive attitude about body building. 0.5. Physical activity at different ages 0.6. Local sport venues and natural environments for doing physical activity  TASK 3: In the technology class, students will learn how to create quizzes, interactive maps and videos. They will analyze the tips to become a good influencer.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY YOUNG INFLUENCERS

- Consumers these days are more likely to seek advice from those they perceive as credible peers than from

the wealthy and famous. That's where social media influencers come in.

- Choose a "niche": Your niche determines who you market to and what you sell. It lets you narrow your

focus and build a targeted audience

- Choose Your Social Media Channels: The first thing you'll need to do is develop a strong presence on the

internet, but depending on your niche, certain platforms may be better than others: millennials prefer

Instagram, however for business LinkedIn may be more effective

- Create a Content Strategy: Your posts should be unique and authentic enough to attract followers and to

keep them coming back for more.

- Be regular to keep your audience engaged: Sometimes simply announcing what you are working on before

you publish it can be enough to intrigue your audience

- Be a peer in your community: Respond to comments and answer questions
- In addition to maintaining your audience, it's important to continue growing it as well: use keywords and tags strategically.
- Let brands know you are open to collaborations.

**TASK 4**: Students teams (3-4 each one) research on healthy habits, physical activity, etc. With this information they prepare the questions for a quiz in the Biology and PE classes.

**TASK 5:** In ICT lessons they create a quiz with the previous questions (Google Forms, Microsoft Forms, etc.). It will be distributed to their friends, family, school partners, etc. This way they will obtain information about healthy habits in their environment. This information will be used for the final task.

**TASK 6**: In the PE class students will gather information about the local possibilities for doing physical activity (indoor and outdoor).

TASK 7: in the ICT class a map locating these places will be created (Google maps).

**TASK 8:** FINAL PRODUCT. Each student's team selects one of their members for being the influencer in a video that they will prepare considering all the information accumulated before. The aim of this video must be to boost a healthy lifestyle.

It is important to preserve individual privacy so videos should not show faces or other characteristics that would allow

them to identify students. They can use avatars, costumes or simply avoid showing faces.

APPLICATIONS FOR RECORDING VIDEOS WITH AVATARS:

- 1. FUNIMATE
- 2. ZEPETO
- 3. ZONE AR FOR SAMSUNG MOBILE PHONES

Description of educational activity









1	SCIENTIFIC AND TECHNOLOGICAL LITERACY-YOUNG INFLUENCERS
	Assassment

Description of educational activity

#### Procedures:

- Rubric for each area: Biology, PE and ICT
- Observation of individual and teamwork
- Evaluation of the final product of each team

#### Criteria:

- Appropriate use of digital sources of information
- Use of scientific language
- Use the scientific method in the research
- Video quality
- Use of free music resources
- Video edition
- Appropriate vocabulary
- Creativity
- Pronunciation and speaking skills

From Biology, Physical Education and Technology curriculum:

- · Learn to use reliable digital sources of information and classify the data obtained
- · Critical thinking about sources and information
- · Speaking fluency
- Correct use of vocabulary
- · Creativity in the final products: ability for catching target audience.
- · Learn to use different digital tools

#### **KNOWLEDGE**

- · Describe healthy lifestyle habits, identifying them as a means of promoting your health and that of others.
- Design healthy nutritional habits by preparing balanced diets, using tables with different food groups with the main nutrients present in them and their
- · Interpret graphs of daily energy expenditure and calculate a person's energy expenditure based on their activity.
- · Analyze the nutritional components of a balanced diet and know and explain how certain habits and behaviors are acquired that promote and maintain health and reduce the risk of suffering from nutrition-related diseases.
- · Identify the main diseases related to excesses or lack of food and abnormal eating behavior, as well as the habits and behaviors that help prevent them.
- · Reject the advertising and environmental pressure that encourages attitudes that encourage the consumption of foods, the excess of which can be harmful to health.
- · Search, select and interpret scientific information from the use of various
- · It transmits the selected information accurately using various media.
- Use scientific information to form your own opinion and argue about problems related to health and disease.
- · Use image, audio and video capture devices and use specific software to edit the information and create new materials in various formats

#### Connection to curriculum









# SCIENTIFIC AND TECHNOLOGICAL LITERACY YOUNG INFLUENCERS

- · Carry out activities that require sharing resources in local and virtual networks.
- Design multimedia documents and know the publication protocols, under suitable standards and with respect for property rights.
- Collaboratively participate in various ICT tools of a social nature and manage their own.
- Use multimedia content distribution channels to host your own materials and link them to other productions.
- Make small films integrating sound, video and images, using multimedia file editing programs.

#### **COMPETENCES**

#### 1. Linguistics

 Show a critical attitude against advertising and environmental pressure, which promote unhealthy lifestyle habits.

Express the need to maintain a balanced diet and expose the delicate balance that is established between diet and the development of certain diseases.

#### 2. Mathematics

- Analyze and prepare caloric tables of the foods necessary for a balanced diet and interpret graphs of daily energy expenditure based on the activity carried out.
- Apply problem-solving strategies and select techniques to calculate the appropriate percentages of nutrients in a balanced diet, recognizing the main foods that contain them and preparing balanced diets.
- Perform direct and indirect calculations and observations of the composition of a diet; ask questions; locate, obtain, analyze and represent qualitative and quantitative information on nutrition and food.

#### 3. Social

- Develop awareness of inappropriate habits and behaviors, and display a feeling of global citizenship.
- Know and value the acquisition of behaviors and habits that favor the care and attention of the daily nutritional demands of the body.

#### 4. Digital

- Search for information using available sources and organize data to answer the questions posed.
- Use ICT to prepare reports written in a word processor (Word, Pages, etc.), or make a presentation in a program designed for it (Powerpoint, Keynote, Prezzi, etc.)), a video, podcast, a set of explanatory murals or panels, etc.
- Manage and process abundant and complex information in solving real problems, making decisions and working in collaborative environments.
- Manage strategies to identify and solve hardware and software problems and take advantage of and critically analyze the information provided.

Connection to curriculum









# SCIENTIFIC AND TECHNOLOGICAL LITERACYYOUNG INFLUENCERS

How to become a good influencer:
 https://easyaffiliate.com/blog/become-social-media-influencer/

· Healthy habits:

https://news.cancerconnect.com/survivorship/10-healthy-habits-for-a-longer-happier-life

https://www.niddk.nih.gov/health-information/weight-management/take-charge-health-guide-teenagers

https://www.euro.who.int/en/health-topics/health-

policy/pages/news/news/2021/03/how-healthy-are-childrens- eating-habits-whoeurope-surveillance-results

- Information about healthy habits in European countries:
   https://www.euro.who.int/\_\_data/assets/pdf\_file/0005/382334/28fs-physical-activity-euro-rep-eng.pdf
- · Physical activity:

https://www.urmc.rochester.edu/encyclopedia/content.aspx? ContentTypeID=90&ContentID=P01602

The expected Outcomes of the Lesson plan 2 – Young Influencers

Results/ What we learned / Outcomes

Short description of

digital sources

Scientific and Technological Literacy

At the end of the lessons students will be able to:

- develop a more committed attitude with respect to healthy habits
- disseminate their ideas using media tools
- have a critical attitude about influencers

Effect of the Activity on students and teachers

Conclusions and recommendations

Scientific and Technological Literacy

- · Students have developed communicative skills
- Both students and teachers have seen that there may be influencers for either good or bad habits and we don't have to forget that most of them are not really experts but good communicators.









## MODULE 1 WORKSHEETS



Klik HERE or scan QR code for downloading Module 1 worksheets!









# INTEGRATED CURRICULUM - LESSON PLANS

### **MODULE 2-FINANCIAL LITERACY**









# MATHEMATICAL LITERACY - TRAVEL AGENCY

Title	Travel Agency
Subject area	Mathematical Literacy
Description of educational activity	Title: Analysis of business of Croatian travel agencies in 2021 Duration: 3 hours  Students' age: 14-18 Organization of the class of pupils: frontal, teamwork, individual work, individual presentation  The aim of the lesson: Students do analysis of tourism trends in Croatia in 2019, 2020 and 2021. The main focus is on the analysis of tourism trends in years when, organized travel in Croatia and the world was limited due to COVID-19, which affected tourists and their overnight stays organized by Croatian travel agencies and connect these results with the possible personal choice of students for future business strategy in work in tourism. Finally, the students will create best business strategies that could help with any challenge a tourist agency may face in the future.  Evaluation and assessment method: Evaluation at the end of activity by students making presentations about the outcomes of the activity. Also, the students complete an evaluation form at the end of the activity. Peer assessment  Support materials: internet, Excel tables, handouts, Canva, Padlet, Mentimeter  Description of the activity:  Students listen to the introduction to the activity.  Students look for statistical data on the number of employees in Croatia  Students work with Excel tables, graphs and charts that show tourism trends in Croatia in 2019, 2020 and 2021.  Based on the above mentioned information, they do calculations, create charts in Excel, observe and analyze trends in various aspects of tourism.  Students discuss various strategies for future predictions regarding employment in tourism. They discuss the criteria that will help them think of the best strategy.  With the help of the teacher, students create rubrics for assessment of their work.  Relying on the above-mentioned activities and results, students make presentations that focus on their business strategy in possible work in tourism and upload their presentations to Padlet.
	The whole class chooses the best strategy and explains their choice using teacher-prepared rubrics.









# MATHEMATICAL LITERACY - TRAVEL AGENCY

Connection to curriculum	Grade: 1st - 4th Curriculum: Mathematical Literacy  Skills: digital skills, analyzing skills  . Use of reliable statistical data . Make predictions for personal future . Creating Excel tables . Creating charts in Excel using data . Visualization of data . Teamwork . Connecting statistical data with business strategies . Creating argumentation from the data .  Knowledge: Students will understand the importance of statistical analysis and employ it.  Competences: Students will employ an analytical approach to problems and strengthen the ability to argue.
Bibliographic reference to be used during the activity	Menadžment turizma, zbirka poslovnih slučajeva, dr. sc. Goran Ćorluka, Sveučilište u Splitu, no. of pages: 256, year: 2020. (Tourism management, collection of business cases, Ph.D. Goran Ćorluka, University of Split, no. page: 256, year: 2020.) https://www.bib.irb.hr/1088705  Matematika u studiju turističkog i hotelskog menadžmenta, prof. Utilus Alma Andabaka, Acta turistica nova, sv. 3 broj 1, no. of pages: 183-193, year: 2009. (Mathematics in tourism and hotel management studies prof. Utilus Alma Andabaka, Acta turistica nova, Vol. 3 No. 1, no. of pages: 183-193, year: 2009.) https://hrcak.srce.hr/clanak/67730
Short description of digital sources	<ul> <li>https://www.mentimeter.com/ (digital tool for interactive classroom)</li> <li>https://dzs.gov.hr/ (internet source for statistical data)</li> <li>https://www.canva.com (digital tool for making posters and presentations)</li> <li>https://hr.padlet.com/ (digital tool for interactive classroom)</li> </ul>
The expected Outcomes of the Integrated Lesson 2 – Travel agency	
Results/ What we learned / Outcomes	Mathematical Literacy  Pupils will collect, analyze and present statistical data presented in different ways (charts, diagrams and Excel tables). They will create a business strategy by applying the results of statistical analysis.









## MATHEMATICAL LITERACY - TRAVEL AGENCY

Effect of the Activity on students and teachers

### Conclusions and recommendations

#### **Mathematical Literacy**

Students will understand the importance of statistical analysis in business plans. They will employ an analytical approach to problems and strengthen the ability to argue.

At the same time, both teachers' and students' creativity will be boosted since the teachers will be guiding and encouraging students to analyze data and think of new creative solutions to the problems. Through the process of exchanging.









# MATHEMATICAL LITERACY - SPENDING AND SAVING

Title	Spending and saving
Subject area	Mathematical Literacy
Description of educational activity	Students age: 15-17 Organization of the class of pupils: frontal, individual and group work  The aims of the lesson: The students will understand the concept of saving and spending money and natural resources.  Support materials: teacher-created handouts, calculator, computers, mobile phones  Handouts: worksheets  Evaluation and assessment: quiz, peer assessment, formative assessment  Description of the activity: The students watch a video that describes the paper recycling process, which is followed by a short discussion. The students read a short description about the state matura exam in the Republic of Croatia focusing on the amount of material needed to produce the printed version of the Mathematics exam. They think about the consequences on the natural resources (forest, water, air) and share their ideas with the rest of the class. Brainstorming - if we continue with this practice, what effects will it have in the future? The students are then divided into smaller groups and are handed a worksheet with tasks. They calculate the amount of paper used to produce the tests (for Mathematics exam), the mass of wood pulp needed in the process. Finally, they think about other possibilities (buying and using laptops for the administration of the exam) and compare the costs.  Each group presents their conclusions and provide support for them.  Whole class activity: they reach a final conclusion and create a poster (in printed or digital version).
Connection to curriculum	Curriculum: Financial Literacy  Knowledge: mathematics, ecology  Skills: ICT skills, mathematical skills, cooperation and team work, developing peer assessment skills  Competence: Students will be able to manage money wisely and make smart financial decisions.









# MATHEMATICAL LITERACY - SPENDING AND SAVING

Bibliographic reference to be used during the activity	Matematika 1, Dakić, Elezović, Element, Zagreb, 2022.	
Short description of digital sources	https://www.youtube.com/watch?v=jAqVxsEgWIM PowerPoint presentation (quiz for assessment)  https://www.poslovni.hr/hrvatska/recikliranjem-papira-do-ustede-vode-i-energije-273952  https://www.ncvvo.hr/kategorija/drzavna-matura/provedeni-ispiti/ https://www.elipso.hr/informatika/laptopi/	
The expected Ou	utcomes of the Integrated Lesson 2 – Spending and saving	
Results/ What we learned / Outcomes	Mathematical Literacy  At the end of the lesson, the students analyze the effect human activity has on the nature, and especially on natural resources. They are able to think of alternatives in order to avoid wasting natural resources, wasting money, so in that way, they learn how to spend wisely and how to save both money and natural resources.	
Effect of the Activity on students and teachers		
Conclusions and recommendations	Mathematical Literacy  With the help of mathematical models, students understand what happens to natural resources and possible damage to the nature caused by human activity. Also, they are able to come up with alternatives and become aware that sometimes spending more money means saving the nature.  Teachers understand that using real life problems to teach mathematical concepts makes it easier for students to understand the subject matter (ratio, calculating volume, conversion of units).	









# MATHEMATICAL LITERACY - SPENDING AND SAVING

Title	Spending and saving
Subject area	Mathematical Literacy
Description of educational activity	Students age: 15-17 Organization of the class of pupils: frontal, individual and group work  The aims of the lesson: The students will understand the concept of saving and spending money and natural resources.  Support materials: teacher-created handouts, calculator, computers, mobile phones  Handouts: worksheets  Evaluation and assessment: quiz, peer assessment, formative assessment  Description of the activity: The students watch a video that describes the paper recycling process, which is followed by a short discussion. The students read a short description about the state matura exam in the Republic of Croatia focusing on the amount of material needed to produce the printed version of the Mathematics exam. They think about the consequences on the natural resources (forest, water, air) and share their ideas with the rest of the class. Brainstorming - if we continue with this practice, what effects will it have in the future? The students are then divided into smaller groups and are handed a worksheet with tasks. They calculate the amount of paper used to produce the tests (for Mathematics exam), the mass of wood pulp needed in the process. Finally, they think about other possibilities (buying and using laptops for the administration of the exam) and compare the costs.  Each group presents their conclusions and provide support for them. Whole class activity: they reach a final conclusion and create a poster (in printed or digital version).
Connection to curriculum	Curriculum: Financial Literacy  Knowledge: mathematics, ecology  Skills: ICT skills, mathematical skills, cooperation and team work, developing peer assessment skills  Competence: Students will be able to manage money wisely and make smart financial decisions.









Title	Travel Agency
Subject area	Media Literacy
	Duration: 6 hours (270 min) Students age: 17 - 18 Organization of the class of pupils: individual, group work  The aim of the lesson: Students will learn: How to write coherent business plan How to promote their Start-up product by using different Media channels How to Crowdfund their project How to create Kickstart Campaign for their future Travel Agency Company  Support materials: Internet YouTube clips TV shows Explanatory presentations/videos  Handouts: Activity sheets
Description of educational activity	Evaluation and assessment method: Written Assignments: Assign written assignments to assess students; understanding and knowledge acquisition. For example: Students can write a reflection paper on the TV shows or TED Talks they watched, highlighting key takeaways and their personal insights. Students can write a business plan for their chosen startup, demonstrating their understanding of the components and financial journey. Group Presentations: Assign group presentations to assess students ability to communicate and present information effectively.  For example: Each group can present their findings on a star entrepreneur, highlighting the traits that contributed to their success and the lessons learned. Groups can present their business plans, showcasing the key components and financial projections. Logo Design and Explanation: Evaluate students' logo design and their ability to articulate its significance for marketing success. For example: Students can submit their logo designs and write a paragraph explaining the design elements and how they believe it will attract









 Kickstarter Campaign Planning: Assess students understanding of crowdfunding and campaign planning.

#### For example:

- Students can submit a detailed plan for their Kickstarter campaign, including target audience identification, PR agency consultation, budget considerations, and promotional strategies.
  - Class Discussions: Engage in class discussions to assess students participation, critical thinking, and ability to analyze concepts.

#### For example

- Discuss the similarities and differences among the entrepreneurs studied, encouraging students to share their observations and insights.
- Have a class discussion on the importance of a business plan, funding options, and risk mitigation strategies for startup companies.
- Teacher Observation: Observe students engagement, participation, and collaboration during group work and class activities. Take note of their ability to follow instructions, contribute to discussions, and demonstrate teamwork
- Peer Assessment: Incorporate peer assessment to encourage students to evaluate and provide constructive feedback to their classmates.

#### For example:

-Students can assess and provide feedback on each group's business plan presentations, considering the clarity of information, organization, and persuasive elements.

Description of educational activity

#### Description of the activities:

#### 1. Icebreaker activity

Teacher introduces students to the TV shows:

- SUNDAYS AT 2, guest of the show is young entrepreneur Albert Gajšak, who at the age of 23 found the IT company with 30 employees and clients all over the world!

How to succeed in a garage? Does every job require college? How the State helps young innovators?, are some of the topics of this show.

https://www.youtube.com/watch?v=YKlx953lvH4&t=1747s or:

- TED TALKS – Bill Gross has founded a lot of start-ups, and incubated many others - and he got curious about why some succeeded and others failed. So he gathered data from hundreds of companies, his own and other people's, and ranked each company on five key factors. He found one factor that stands out from the others and surprised even him.

 $https://www.ted.com/talks/bill\_gross\_the\_single\_biggest\_reason\_why\_st\\ art\_ups\_succeed$ 









### 1. In the first part of the lesson we're talking about the idea of a Start-up Company, Entrepreneurship and Business plan

Teacher raises questions for discussion

- What is a Start-up?
- How to promote your innovation product and raise money on Kickstarter platform?
- Are there other possibilities for money raising for future start-up Company?
- What is the money reinvestment and why is it important for company development?
- Where the new possibilities for young start up companies can be found in the new growing markets?

#### Students Assignment 1 – Study a Star Entrepreneur

- Ask students to define the word "entrepreneur" (someone who takes a calculated risk to create a new business, often by innovating a new solution to a problem or need). Given that most new businesses fail, successful entrepreneurs tend to be persistent and tenacious in the face of obstacles.
- Divide the class into small groups. Explain that each group will research a different entrepreneur (historical or contemporary). Hand out the Study a Star Entrepreneur (Activity sheet 2). Depending on time and resources, students can conduct additional Internet research.
- Once students have finished reading and taking notes independently, have them share what they learned with their group.
- Have each group briefly report on the entrepreneur they studied using their notes for reference. Group members can split up the questions and present on the areas they researched. Direct the class to take notes as they listen so they can draw conclusions across different entrepreneurs' stories.

Teacher will lead a class discussion about what similarities and differences students noticed among the different entrepreneurs.

#### Questions:

- What traits do these entrepreneurs share that helped them be successful in business?
- What lessons can we learn from how these entrepreneurs found success?

#### Students Assignment 2 - Business plan

- Ask students to share what they think a business plan is.
- Ask why they think it's important for their future Start-up to write a business plan, and have them work as a class to brainstorm ideas for the components they think would be important to include in one.
- Have students research a Startup of their choice (must have started in the past 5 years) and report on the financial journey of that startup.

Description of educational activity









Teacher briefly explains to students that effective business plans must have these components:

- Business description (an explanation of what the business will be and the need it will fill for consumers)
- · Market analysis (a study of the competition in the industry)
- Marketing and sales strategy (a plan for how to sell the business's services or products and convince people to buy them)
- Funding requirements (an estimate of how much money will be needed to make the company successful)
- Financial projections (an estimate of how much money the company will be able to make) lecture on what a business plan is

Now that you have selected a company you admire, use this organizer Activity sheet to create a business plan as if you were starting it yourself. The more detail you include, the better your plan will be—and the more successful your business!

(Students work on the Activity sheet 1)

### Students Assignment 3. – Creating the logo for future Start-up Company: Travel Agency for young people

- Challenge students to design a new logo, tagline, or mission statement for their Start-up Travel Agency company.
- Emphasize the importance these elements carry for marketing success.
- Ask students to write a paragraph explaining what they did and how they think it will entice consumers.

Use presentation or Explanatory video on How to create a successful logo: https://drive.google.com/drive/folders/1QatdOiWzlL93Uu-hVUhh5Cq272HHAdZe?usp=sharing

#### The third part of the lesson is a project task for students:

#### 1. Teachers instructions to the students:

In order to initiate your future Start-up think of following:

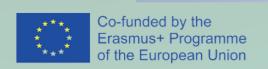
- 1. Think about the optimal amount of the money you need to start your start-up project
- 2. Sources of funding: Know the options and the implications of each
- 3. Risk: Understand the risks and mitigate against them Have an exit strategy.
- 4. Building a budget / What to consider and why it is important

#### Kickstarter Campaign – Launching the Travel Agency Startup Company

#### Step 1.

Students will organize public event – interview/lecture with the famous successful founder / Field-expert of the start-up company.

During this public event they will announce Kickstarter Campaign for Startup Travel Agency



Description of educational

activity







### Step 2. Students will organize the Crowdfunding campaign by following 10 Kickstart tips:

Crowdfunding is usually as much about raising funding as it is about building brand awareness!

#### 10 Kickstarter Tips for Crowdfunding

#### 1. Identify your target audience

Ask family and friends an honest opinion about your Start-up Travel Agency for young people. Choose your target audience. Research about their needs and wishes by comparison to the current market in the field of travel agencies.

#### 2. Consult a PR Agency on the Live Campaign Promotion

Campaigns rarely do well without a crowdfunding PR agency. PR agencies will sometimes work for a percentage of sales that they drive to your campaign (usually 15%), with no flat fee. This means that anyone can work with them, but you have to have a great campaign page already — they decide whether or not to work with you based on looking at your preview. You don't need to hire them to help from start to finish — that's good but expensive — but you really want specialists to run ads for you.

Description of educational activity

#### 3. The Final Amount Raised Does Not Indicate the Total Income

So you've raised EUR 20,000? That sounds impressive and it is. But that does not mean that you have EUR 20,000 in your pocket. Kickstarter takes a 5% fee. Credit card companies take around 3%. If you work with a PR Agency, 15% of the income their ads bring to your campaign goes to them. Around 10–20% of the money for most campaigns goes to pay for ads. So you're only getting around 60–80% of the total raised. Then you have to invest some of the money into actually producing and sending off the product. In the end, if you end up with a profit of around 20–30% of the total raised that's considered pretty good.

#### 4. Change Things as You Go

Your work isn't done on launch day. You can change a lot of elements of the campaign as you go, adding rewards and, most importantly, changing the category around.

5. Use Minimal Text but Lots of Images, Gifs, Videos, Infographics Most people just scan campaigns. They watch the video and skim the rest. Their eyes are drawn to images and infographics that visually explain the product. We humans are lazy and only around 10–20% of people actually bother reading all the text. If you can tell your story, and what your product does, with pictures they are worth a thousand words.

#### 6. Load Up on Publicity the First Two Days

Line up as much publicity and as many "backers" as you can in the first 48 hours. Statistically, less than 30% of all campaigns meet their goal, so if you can pass your target in the first two days, then it is likely you will succeed. The best of all is if you can arrange for some high-profile media coverage (e.g. Kickstarter is famous for, tech and design), or at least coverage on blogs and social media pages, and coordinate them for the first two days.









#### 7. Aim Low, Hope for High

This last fact means that you should choose the lowest target that you can and still fulfill the promise of the campaign. Campaigns usually either fail altogether or they make far more than their target. Backers like projects that have surpassed their target. They see it as a trending, popular thing and want to jump onboard.

#### 8. The First 15 Seconds of the Video are Key

Create your promotional video bearing in mind the following: Studies show that most people will only watch the first 15 seconds of your video. A much smaller percentage watch the whole thing. So be sure that everything you want to convey about your Travel Agency Start-up appears in brief in those first 15 seconds.

### Description of educational activity

9. Prepare at Least 10 High-Resolution Images and an Extra Video
PR companies will need a variety of photos to promote with (and you will, too). They usually ask for at least 10 good photos — of the product and "lifestyle" shots of people using the product. You can also make short videos that are basically slide shows with text added to promote — try free Lumen5 online software to do this.

#### 10. Master Instagram/Facebook Ads

Facebook/Instagram ads are the key to success beyond your own personal outreach. Set up a variety of target audiences. Experiment with several ad images or videos and various target audiences. Put just a little money, say \$10 each, into a lot of varied ad sets. You might try 20 ad sets, each running for 1 day, each for a different audience. See which result in clicks. Those that don't, eliminate. Put more money into those that do, and then try more, different ones until you find your most successful ads. This is fiddly and time-consuming, but it works.

Aim for a return on investment of at least \$3 for every \$1 you put into ads—that's considered solid but nothing to write home about.

Stay positive! Crowdfunding takes a lot of work and energy!

#### Knowledge:

Grade: Secondary, 3. - 4. Curriculum: Media Literacy

- Understanding the role of the media in launching a start-up
- Understanding the concept of a start-up company and entrepreneurship
- Knowledge of different funding options for start-ups
- Understanding the importance of money reinvestment for company development
- Familiarity with new growing markets for start-up companies.

#### Skills:

- Research and analysis skills to study a star entrepreneur and present findings.
- Critical thinking and communication skills during class discussions.
- Business planning and financial analysis skills.

### Connection to curriculum









Connection to curriculum	<ul> <li>Design and creativity skills for creating a logo and tagline for a start-up company.</li> <li>Presentation and persuasive skills for promoting a Kickstarter campaign.</li> <li>Competences: <ul> <li>Media literacy competences, including understanding media channels and using them for promotion.</li> <li>Financial literacy competences, including budgeting, funding, and financial projections.</li> <li>Entrepreneurial competences, including risk-taking, persistence, and innovation.</li> <li>Digital literacy competences, including using online resources, YouTube clips, and explanatory presentations/videos.</li> </ul> </li> </ul>
Short description of digital sources	https://www.youtube.com/watch?v=YKlx953lvH4&t=1747s  https://www.ted.com/talks/bill_gross_the_single_biggest_reason_why_st art_ups_succeed  https://drive.google.com/drive/folders/1QatdOiWzlL93Uu- hVUhh5Cq272HHAdZe?usp=sharing
The expecte	ed Outcomes of the Integrated Lesson 2 – Travel agency
Results/ What we learned / Outcomes	Students will:  - develop media literacy skills by using different media channels for promoting their start-up  - understand the concept of a start-up company and the importance of a business plan  - be able to analyze the financial journey of a real start-up company  - demonstrate creativity and design skills by creating a logo and tagline for their own start-up  - understand the process of crowdfunding and the strategies involved in a successful Kickstarter campaign.
E	iffect of the Activity on students and teachers
Conclusions and recommendations	Students will: - gain a deeper understanding of entrepreneurship, financial literacy, and media literacy concepts - develop critical thinking, research, and presentation skills - enhance their creativity, design, and communication skills.  Teachers will: - Teachers will improve their creativity, design and communication skills by gaining insight into the field of entrepreneurship, which they rarely encounter in everyday teaching practice.









Conclusions and recommendations

#### Conclusions and recommendations:

learning experience.

The lesson plan effectively integrates media literacy with finance literacy, providing students with a comprehensive learning experience. The activities encourage student engagement and foster creativity, critical thinking, and communication skills.

Teachers may consider inviting guest speakers or experts in the field of start-ups and entrepreneurship to enhance students

Co-funded by the Erasmus+ Programme of the European Union







Title	Spending and saving
Subject area	Media Literacy
	Duration: 6 hours (270 min) Students age: 15 - 18 Organization of the class of pupils: individual, group work  The aim of the lesson: The aim of this lesson is to help students develop critical thinking skills and make informed decisions about their spending and saving habits in relation to media influence. By the end of the lesson, students should understand the techniques used in media messages, create a personal spending plan, learn about the concept ofpay yourself for saving, set personal saving goals, and engage in a project-based activity focused on fundraising for a humanitarian cause.  Support materials: Internet Movie
Description of educational activity	Handouts:     YouTube clips     Excel worksheets  Evaluation and assessment method Throughout the lesson, the teacher can assess students understanding and participation through class discussions, group activities, and the completion of worksheets and templates. The teacher can also evaluate the final project outcomes, such as the success of fundraising efforts, the impact of media promotion, and the reflection on the projects achievements.  Description of the activities
	1. Icebreaker activity Imagine you won a EUR 10,000 lottery. Each student shares how they would spend that money and why they made those decisions.  1. The first part of the lesson describes the spending Teacher introduces students to the techniques that will enable them to become better at their spending:  What is a Spending Plan?  A spending plan is a method for distributing your income among the mix of things you want and need. Creating a spending plan ahead of time will allow you to effectively manage your finances and determine where to best spend your money.  Introduction to the exercises by showing short video:
	Creating a Spending Plan https://www.youtube.com/watch?v=7dm86CcUf14&t=52s









#### Student exercises:

Here are the steps you should follow to create your personal spending plan:

#### Exercise 1: Time frame

Decide on a time frame

If you receive financial aid, you may receive most of your income per month. Deciding on a time frame will make it easier for you to calculate your funds and track your expenses accordingly, whether per semester or per month.

#### **Exercise 2: Income list**

List all of your income

It is important to understand where your money will be coming from, so reviewing all of your sources of income will give you a better understanding of your budget.

#### **Exercise 3: Anticipation of the expenses**

Anticipate your expenses

Now look at where your money will be spent. This will allow you to better control your spending as you pay off your direct and indirect costs

#### **Exercise 4: Plan evaluation**

Evaluate your plan

Subtract your total expenses from your total income to determine whether it will be necessary for you to find additional sources of income to cover any leftover expenses.

#### **Exercise 5: Tracking Your Income/Expenses**

To make sure your current spending is aligned with your spending plan, it is important to track your spending plan over the course of the specified time frame.

#### **Exercise 6: Reduce Your Spending**

A good way to make sure you are meeting the requirements of your spending plan is by reducing your spending where possible. Certain categories, such as clothes, transportation, and food are relatively flexible expenses that can be modified to lower your spending. By actively seeking more affordable substitutes, you can ensure that you will meet the financial goals you have set for yourself.

#### **Useful Tools:**

There are various online tools designed to give you a simple way to create a spending plan, keep track of your spending, and help you stay on top of your finances. There are many tools available to choose from, but here are some examples of free apps and websites:

Mint, https://mint.intuit.com/
Good Budget https://goodbudget.com/

Good Budget, https://goodbudget.com/ and Budgetpulse, https://www.budgetpulse.com/

You can also use an Excel spreadsheet to create and track your spending plan. You can create your own or you can download our spending plan template.

Description of educational activity









#### 2. In the second part of the lesson we're talking about saving

Prior to the lesson students are asked to create a word wall with the vocabulary words, and review with the class.

(Students can use simple posti-it sticking notes to create one)

Teacher briefly explains the topic to the class by following questions:

- What is Saving?

Saving is the act of setting aside money now in preparation for the future.

- Why do people save money?

People save money for two reasons: in case something bad happens, or to make a large purchase in the future.

One important savings rule to keep in mind is "pay yourself first" Students are watching the short video as a introduction to the principle: https://www.youtube.com/watch?v=PfqG\_qze0CU&t=2s

After watching they discuss and draw the conclusions on:

- What is Pay Yourself First?

Pay Yourself First means putting a portion of your money into a savings account before allocating the rest to your expenses.

This is a crucial principle to successfully saving your money, and it can be done by including saving as an expense item in your spending plan.

- Following this simple rule will allow me to:
- Establish an emergency fund so you won't have to rely on credit
- · Reach financial goals
- · Have what I want without debt

#### Students Task

Ask students to set their personal goals (short or long term ones) by creating a saving plan that can be used for future: e.g. travelling, college education, projects.

They can use saving goals template.

After identifying their goals let students answer the following questions for each goal:

- · What can I do now to begin working towards this goal?
- · What resources do I need to achieve this goal?
- What changes might need to be made in order to focus my resources on attaining this goal?

### **3. The third part of the lesson is a project task for students** PROJECT TITLE: Spending and saving for humanitarian activity

Students are divided in 3 groups with a different tasks in order to accomplish the same goal

· Group 1. Finances – Fund raising

Step. 1 Students will set the targeted amount of money they would like to raise for children hospital.

Step 2. Students will contact various sources in order to raise money (Banks, NGOs, Public institutions, Governmental bodies etc.:)

Description of educational activity









Description of
educational activity

#### · Group 2. – Marketing – Media

Step 1. Students will publish their activities on Social medias (Facebook, Instagram, Twitter, Pinterest)

Step 2. Students will contact different media channels (TV, radio, Newspapers)

Step 3. Students will introduce their peer-colleges, within their school about their actions using panels and billboards

#### Group 3. – Follow up – Money spending

- Students follow up and report on impact and success of the humanitarian project
- Students make promotional video after finished activity and post it on different social media (Facebook, Instagram, Youtube channel)
- They will publish the article about their success in Scholl Newspaper
- They will organize school exhibition (photos and articles), invite wider audience (parents, visitors,

Governmental bodies, decision makers etc.) to show them success of their project for the purpose of raise awareness on importance of such actions.

Grade: Secondary, 2. - 4. Curriculum: Media Literacy

#### Knowledge:

#### Students will:

- understand the influence of media messages on financial decisions and the concept of media bias
- gain knowledge about the concept of a spending plan and how it helps in managing finances effectively
- understand the principle of "pay yourself first" and its significance in saving money
- learn about different sources of income and expenses and how to anticipate and evaluate them
- become familiar with online tools and resources for creating and tracking a spending plan
- gain knowledge about setting saving goals and the importance of planning for the future.

#### Skills:

- Media literacy: Students will develop skills in recognizing and analyzing media messages, understanding their intentions, and seeking alternative viewpoints.
- Financial literacy: Students will develop skills in creating a personal spending plan, tracking income and expenses, and evaluating their financial situation.
- Critical thinking: Students will analyze and evaluate media messages related to spending and saving, identifying biases and making informed decisions.
- Goal setting: Students will learn how to set specific, measurable, achievable, relevant, and time-bound (SMART) saving goals.

### Connection to curriculum









Connection to curriculum	- Communication: Students will engage in group discussions, share their spending and saving decisions, and effectively communicate their project activities.  - Project management: Students will collaborate in groups, plan and execute a project to raise funds for a humanitarian cause, and report on the project's impact.  - Problem-solving: Students will identify challenges and find solutions in managing their finances, reducing spending, and achieving their saving goals.  - Self-reflection: Students will reflect on their spending and saving habits, assess their financial goals, and make necessary adjustments.  Competences:  - Media literacy competence: Students will develop competence in analyzing and critically evaluating media messages related to finance, recognizing biases, and seeking alternative viewpoints.  - Financial competence: Students will demonstrate competence in managing personal finances, creating a spending plan, and making informed spending and saving decisions.  - Social competence: Students will collaborate effectively in groups, communicate their ideas, and engage in activities that contribute to a humanitarian cause.  - Self-management competence: Students will develop competence in setting and prioritizing saving goals, tracking their income and expenses, and making responsible financial choices.  - Critical thinking competence: Students will apply critical thinking skills to evaluate media messages, analyze financial situations, and make informed decisions.  Overall, this lesson plan aims to equip students with knowledge, skills, and competences that empower them to make informed spending and saving decisions, navigate media messages effectively, and become responsible financial managers.
Short description of digital sources	<ul> <li>https://www.youtube.com/watch?v=7dm86CcUf14&amp;t=52s</li> <li>Mint, https://mint.intuit.com/</li> <li>Good Budget, https://goodbudget.com/</li> <li>Budgetpulse, https://www.budgetpulse.com/</li> <li>https://www.youtube.com/watch?v=PfqG_qze0CU&amp;t=2s</li> </ul>
The expected	Outcomes of the Integrated Lesson 1 – Spending and Saving
Results/ What we learned / Outcomes	Students will:  - understand the concept of a spending plan and be able to create their own plan  - grasp the principle of "pay yourself first" for saving and set personal saving goals  - recognize the influence of media messages on spending and saving





habits





The expected Outcomes of the Integrated Lesson 1 – Spending and Saving

### Results/ What we learned / Outcomes

- develop critical thinking skills in evaluating media messages related to spending and saving
- actively engage in a project-based activity to raise funds for a humanitarian cause, utilizing media promotion and financial management skills.

Effect of the Activity on students and teachers

### Conclusions and recommendations

#### Students will:

- become more aware of media influence on their financial decisions and develop skills to resist persuasive messages
- make informed spending and saving decisions, leading to responsible financial behaviors
- gain confidence in their media literacy and financial management
- become advocates for media literacy and responsible financial decision-making.

#### Teachers will:

- expand their knowledge and skills in media literacy and financial education
- observe students growth in critical thinking, financial decision-making, and project management skills
- be able to provide guidance and support to students in their financial journeys
- learn from the project outcomes and adjust future lessons to enhance student learning.







# FINANCIAL LITERACY - TRAVEL AGENCY

Title	Travel agency
Subject area	Financial Literacy
Description of educational activity	2 hours (90 min) Students age: 15 - 16 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The aim of the lesson is to make pupils understand the terms Currency, exchange rates and how to understand them and also how to behave in a foreign country to stay financially safe.  Support materials: Internet  Handouts: Pupils create an infographic giving some advice how to keep their money safe when travelling  Effect of the activity on students and teachers: STUDENTS: Pupils understand how exchange rates work and how it is important to understand them when travelling abroad.  TEACHERS: Teachers can apply the activities in their own subjects.  Description of the activities: Students think of their favourite destination and using the following site: www.wordart.com they create a word picture consisting of the countries they would like to visit.  2. Students try to think of the currencies used in their dream destination and they indicate the country and the currency (including its picture) in the padlet tool: e.g. https://padlet.com/taanyaljakub/kadhzfptckztnagv  3. Presentation by a teacher: https://wiew.genial.ly/6300e3c5a59bb000111be7fe/presentation-travelagencyfinancial-literacy Q) What is currency b) Cryptocurrency c) Students watch a video on exchange rates and how they work d) They are shown different exchange rate examples and types of exchange rates  4. Pupils create an infographic giving some advice how to keep their money safe when travelling ( where to exchange money, how to pay in shops, where to withdraw money)









## FINANCIAL LITERACY - TRAVEL AGENCY

Connection to curriculum	Grade: Secondary: 12. Grade Curriculum: Financial Literacy  Knowledge: Pupils understand how exchange rates work and how it is important to understand them when travelling abroad.  Skills: Pupils are able to read and understand exchange rates boards.  Competence: Pupils know where to exchange money, how to pay abroad and where to withdraw money.	
Short description of digital sources	https://www.investopedia.com/terms/c/currency.asp - description of some terms related to currency  https://youtu.be/W7ezf-1SATM - a Youtube video explaining what exchange rate is  https://www.investopedia.com/terms/e/exchangerate.asp - an Internet site explaining exchange rates  www.padlet.com - a platform where students share their ideas  www.wordart.com - a platform for warm up activity - My favourite destination	
The expected Outcomes of the Integrated Lesson 2 – Travel agency		
Results/ What we learned / Outcomes	Financial Literacy  At the end of the lesson pupils understand how exchange rates work and how it is important to understand them when travelling abroad. They are able to read and understand exchange rates boards. Pupils know where to exchange money, how to pay abroad and where to withdraw money.	
Effect of the Activity on students and teachers		
Conclusions and recommendations	Financial Literacy  Pupils are able to read and understand exchange rates boards  Teachers will be provided with new resources which they can implement in their lessons and they will be encouraged to educate themselves in up to date topics and information.	









## FINANCIAL LITERACY - SPENDING AND SAVING

Title	Spending and saving
Subject area	Financial Literacy
Description of educational activity	Duration: 2 hours (90 min) Students age: 15 - 16 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The aim of the lesson is to make pupils Identify career options and education or training required for different careers. Name sources of income. Explain the relationship between income and taxes. Determine personal dinancial goals. Determine personal financial decisions. Create a financial goals. Determine personal financial planning. Develop a plan for spending and saving. Create a system for keeping financial records. Identify personal income and expenses or system for cash flow management.  Support materials: Internet  Handouts: presentations worksheets family budget planner – Excel spreadsheet  Evaluation and assessment method: Pupils create a financial plan containing short term and long term goals.  Effect of the activity on students and teachers: STUDENTS: Pupils understand the importance of financial planning and they can identify their financial goals  TEACHERS: Teachers can apply the activities in their own subjects.  Description of the activities: 1. Brainstorming: Students think of a career they would like to have in the future. 2. They use worksheet No.1_My career research to write a description of their future job, what education or training they need to get it and what is the average income for it. A teacher can help students: Not sure which career to start with? Take a moment to reflect on your interests and skills by answering the questions below or taking an interest survey to assess strengths and capabilities, such as https://careertech.org/student-interest-survey or www. careeronestop.org/Toolkit/Careers/interest-assessment.aspx What do you like to do? What are you interested in learning more about?



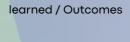




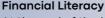


## FINANCIAL LITERACY - SPENDING AND SAVING

Description of educational activity	<ul> <li>3. Presentation by a teacher (30 mins) – Type of income and Taxation system</li> <li>4. Setting and reaching goals – students a scenario (worksheets) and try to understand the difference between a want and need. They try to write down 5 values they consider to be important for them. In the next part they try to set their own goals.</li> <li>5. Using the Google spreadsheet Family budget planner they identify all types of income and expenses of their own family/ or alternatively only their own. Their try to identify the expenses they could cut down and safe more. From the spreadsheet they will also learn what they need to safe for.</li> <li>6. At the end students can play a saving and spending game: https://www.consumerfinance.gov/consumer-tools/educator-tools/youth-financial-education/teach/activities/playing-saving-spending-game/</li> </ul>	
Connection to curriculum	Grade: Secondary: 12. Grade Curriculum: Financial Literacy  Knowledge: Pupils can name sources of income. Explain the relationship between income and taxes. Determine personal values and financial goals.  Skills: They can create a system for keeping financial records; identify personal income and expenses or system for cash flow management.  Competence: Students are able to determine personal values and financial goals. They can also determine their personal financial decisions.	
Short description of digital sources	<ul> <li>https://www.consumerfinance.gov/consumer-tools/educator-tools/youth-financial-education/teach/activities/playing-saving-spending-game/ - online financial game</li> <li>https://www.resourcefuldev.com/family-excel-budget-planner/ - online excel budget planner</li> </ul>	
The expected Outcomes of the Integrated Lesson 2 – Spending and saving		
	Financial Literacy	



Results/ What we



At the end of the lesson pupils can create a financial plan. Summarize the purpose of financial planning. Develop a plan for spending and saving. Create a system for keeping financial records. Identify personal income and expenses or system for cash flow management. They will make an infographic in which they will sum up all the taxes levied in Slovakia.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY -TRAVEL AGENCIES

Title	Travel agencies
Subject area	Scientific and technological literacy
Description of educational activity	Duration: 5-6 sessions Students age: 12-16 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The objective of this lesson is to make students aware of the environmental consequences of the tourism businesses in order to protect and promote ecotourism in natural areas in an environmentally friendly manner.  Support materials: Internet Videos Articles Handouts  Description of the activities  TASK I: Introduction to the lecture by showing some short videos: Why sustainable tourism? https://youtu.be/JFbbKbdqoJg  After watching the video, students debate about these topics: How much has the number of travelers increased the last 75 years and what this growth implies? Why is so important to take care about the destinations of natural tourism? DESTIMED and meet network introduction https://youtu.be/gXm_s_3_Mdk What's the ecological footprint? Give examples Figure out what can be ecotourism packages. Brainstorm: Protected areas in Spain.  TASK 2: Teacher from two different subjects, biology and ICT, give a lecture (30 min) to the class introducing and briefly explain the topics: 1. Different categories of protection: national parks, natural parks, biosphere reserves and marine protected areas. 2. Problems in Spanish ecosystems. 2. The footprint of tourism in natural areas. 4. Tourism business in national parks. 5. Sustainable tourism in protected areas. 6. Companies and web sites to promote ecotourism  TASK 3: In groups of 3 students will analyze the measurements that natural parks in our country have develop to protect and maintain sustainability and the travel agencies dedicated to offer ecotourism in every park.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY -TRAVEL AGENCIES

Nuestros Parques Nacionales (miteco.gob.es)

- o Teide National Park
- o Picos de Europa National Park
- o Doñana National Park
- o Monfragüe National Park
- o Ordesa y Monte Perdido National Park
- o Sierra de Guadarrama National Park
- o Tablas de Daimiel National Park
- o Teide National Park
- o Timanfaya National Park

Travel agencies dedicated to ecotourism:

Asociación de Ecoturismo en España | Soy Ecoturista Ecoturismo en España: turismo comprometido con la naturaleza | spain.info en español Primer canal especializado en Ecoturismo de España, noticias sobre Ecoturismo y las mejores ofertas de Alojamientos,

Ecotours y Turismo Sostenible de España, Europa y América Article. Best Environmental Management Practice in the Tourism Sector. European commission.

**TASK 4:** In the same group students create a powerpoint or Prezi organizing the information. Then they present theirm data, analysis, and conclusions.

Description of educational activity

**TASK 5**: Students teams create a podcast based on the previous research and disseminate them on the school radio.

ITC applications:

- 1. Anchor: create your podcast from your mobile.
- 2. Audacity: edit your records to create your final podcast
- 3. Disseminations: school radio.

See the following document to amplify information:

https://drive.google.com/file/d/1XzLR8QRwcutg1QhiEU9kAYcsBGrBUp\_H/view?usp=sharing

#### **Assessment**

- Procedures:
- Rubric for each of both areas: Biology and ICT
- Observation of individual and team work
- Evaluation of the final product of each team
  - · Criteria:
- Appropriate use of digital sources of information
- Use of scientific language
- Use the scientific method in the research
- Script quality
- Appropriate vocabulary
- Pronunciation and speaking skills
- Creativity









# SCIENTIFIC AND TECHNOLOGICAL LITERACY -TRAVEL AGENCIES

Grade: Secondary, 1-4. From Biology and ICT curricula:

#### SKILLS

- Learn to use reliable digital sources of information and classify the data obtained
- Critical thinking about massive tourism
- Speaking fluency
- Correct use of vocabulary
- Creativity in the final products: ability for catching target audience.
- Learn to use different digital tools

#### **KNOWLEDGE**

- Identify the effects of massive tourism in natural areas.
- Distinguish between different types of protected areas in Spain and the graduated type of measures taken in order to protect the environmentally remarkable areas.
- Become aware of the footprint of different types of activities developed in protected areas and their contribution to global climate change and pollution.
- Analyze and appreciate the biodiversity and geological features of national parks and other protected areas.
- Relate ecotourism to the emerging way of tourism demanded by citizens.
- Know some ecotourism agencies and their local activities and their committed plans with sustainability and nature protection.
- Use image, audio and video capture devices and use specific software to edit the information and create new materials in various formats
- -Carry out activities that require sharing resources in local and virtual networks.
- Design multimedia documents and know the publication protocols, under suitable standards and with respect for property rights.
- Collaboratively participate in various ICT tools of a social nature and manage their own.
- Use multimedia content distribution channels to host your own materials and link them to other productions.

#### COMPETENCES

#### 1.- Linguistics

- Find information related to the various elements involved in the sustainability, flora, fauna, natural environment, and the tourism business.
- Present communications to the rest of the class and argue for and against the conclusions obtained.

#### 2.- Mathematics

- Analyze the effect of in-natura activities footprint.
- Calculate the increase in the number of travelers over time and their impact in the wild.
- Interpret graphs that show a variety of factors involved in the pollution and ecological footprint.











# SCIENTIFIC AND TECHNOLOGICAL LITERACY - TRAVEL AGENCIES

Connection to curriculum	<ul> <li>3 Social</li> <li>Be respectful to the valuable ecosystem and appreciate our remarkable natural resources.</li> <li>Reject activities that cause degradation in the protected areas.</li> <li>Value ecotourism as a source of protection and benefit for travelers, tour operators, locals and the natural areas.</li> <li>4 Digital</li> <li>Search for information using available sources and organize data to answer the questions posed.</li> <li>Use ICT to prepare reports, written in a word processor (Word, Pages, etc.), or make a presentation in a program designed for it (Power point, Prezzi, etc.), a video, podcast, etc.</li> <li>Manage and process abundant and complex information in solving real problems, making decisions and working in collaborative environments.</li> <li>Manage strategies to identify and solve hardware and software problems and take advantage of and critically analyze the information provided.</li> </ul>
Short description of digital sources	Tourist agencies https://youtu.be/JFbbKbdqoJg https://youtu.be/gXm_s_3_Mdk  National parks Nuestros Parques Nacionales (miteco.gob.es)  Creating a podcast https://drive.google.com/file/d/1XzLR8QRwcutg1QhiEU9kAYcsBGrBUp_H/ view?usp=sharing Asociación de Ecoturismo en España   Soy Ecoturista  Ecotourism Ecoturismo en España: turismo comprometido con la naturaleza   spain.info en español Primer canal especializado en Ecoturismo de España, noticias sobre Ecoturismo y las mejores ofertas de Alojamientos, Ecotours y Turismo Sostenible de España, Europa y América
The expected Outcomes of the Integrated Lesson 1 – Travel agencies	
Results/ What we learned / Outcomes	At the end of the lesson students will develop an awareness of the necessity of a more ecological tourism in order to promote sustainability. They will be conscious of the negative effects of massive tourism in nature.  They will learn how to disseminate their ideas using media tools.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY -TRAVEL AGENCIES

Effect of the Activity on students and teachers

Scientific and Technological Literacy

Conclusions and recommendations

Students and teachers will be able to connect ecotourism to benefits generated in different aspects (financial,

environmental, local development).

We will be aware of the increasing growth of the economy based on sustainability.

Students have developed communicative skills.







Title	Retirement savings
Subject area	Scientific and technological literacy
Description of educational activity	Duration: 5-6 Students age: 15-16 Organization of the class of pupils: frontal, individual, in groups  The aim of the lesson: The objective of this lesson is to make students conscious of different aspects involved in the retirement such as social, psychological and physical health and their links with socio-economic status.  Support materials: Internet Videos Articles Handouts  Description of the activities TASK 1: Introduction to the lecture by listening a short podcast: The audio read psicology of retirement. Audio Read: Psychology of Retirement - YouTube The Psychology of Retirement: Tips for Readjusting   Psychreg Students will analyze positive and negative aspects.  TASK 2: students teams (3-4 people) make a poster in relation to one of the ten most frequent diseases in the elderly. Chronic obstructive pulmonary disease (COPD) Alzheimer's disease and dementia Depression Heart failure Chronic kidney disease (CKD) Diabetes Ischemic heart disease (or coronary heart disease) Arthritis High cholesterol Hypertension (high blood pressure) The Top 10 Most Common Chronic Diseases for Older Adults (ncoa.org) https://www.ncoa.org/article/the-top-10-most-common-chronic-conditions-in-older-adults
	<ul> <li>TASK 3: Comprehension, analysis, conclusions and presentation. Reports based on these topics:</li> <li>Health, Ageing and Retirement in Europe. Socio-Economic Disparities in Physical Health in 10 European Countries</li> <li>Healthy habit: smoking, diet and sports in different groups.</li> <li>Lifespan in different socioeconomic elderly groups.</li> </ul>
	Cancer in different socioeconomic elderly groups.  Mental health in different socioeconomic elderly groups.









	TASK 4 Introductory lecture to incomes and expenses during the retirement:
Description of educational activity	<ul> <li>Support materials: Retirement spences <ul> <li>5 Biggest Expenses for Retirees &amp; Expenses &amp; Expenses</li></ul></li></ul>
Connection to curriculum	From Biology, Physical Education and Technology curriculum:  SKILLS  - Learn to use reliable digital sources of information and classify the data obtained  - Critical thinking about sources and information  - Speaking fluency  - Correct use of vocabulary  - Creativity in the final products: ability for catching target audience.  - Learn to use different digital tools  KNOWLEDGE  - Describe healthy lifestyle habits, identifying them as a means of promoting health in elderly.  - Design a presentation to transmit information of one of the most important illnesses among the retirees.  - Interpret the relationship between habits and socioeconomic condition and health during retirement.  - Analyze the importance of having a good financial management to have a good in the old age.  - Identify the main physical and mental diseases in elderly.  - Relate healthy and unhealthy habits lifespans in different socioeconomic groups of elderly  - Search, select and interpret scientific information from the use of various sources.  - It transmits the selected information accurately using various media.  - Use scientific information to form your own opinion and argue about problems related to health and disease.









Connection to curriculum	<ul> <li>Collaboratively participate in various ICT tools. Respect for property rights.</li> <li>COMPETENCES 1 Linguistics <ul> <li>Convey information properly to present information, results, and conclusion.</li> <li>Express the need to have healthy habits to maintain a good state of health in the retirement.</li> </ul> </li> <li>2 Mathematics <ul> <li>Analyze graphs that show the prevalence of a varied group of diseases among retirees.</li> <li>Interpret percentages and distributions of elderly expenses, and the economic readjustment that is necessary during retirement.</li> <li>Calculate percentages, create graphs and analyze data.</li> </ul> </li> <li>3 Social <ul> <li>Develop awareness of inappropriate habits in the process of aging.</li> <li>Know and value the acquisition of behaviors and healthy habits.</li> <li>Be conscious of the diverse group of difficulties that can affect the elderly,</li> <li>Value that savings can significantly improve the general state of physical and mental health during the retirement,</li> </ul> </li> <li>4 Digital <ul> <li>Search for information using available sources and organize data to answer the questions posed.</li> <li>Use ICT to prepare reports written in a word processor (Word, Pages, etc.), or make a presentation in a program designed for it (office program) or a set of explanatory murals, panels, etc.</li> <li>Manage and process abundant and complex information in solving real problems, making decisions, and working in collaborative environments.</li> </ul> </li> </ul>
Bibliographic reference to be used during the activity	Title: Health, Ageing and Retirement in Europe First Results from the Survey of Health, Ageing and Retirement in Europe Published by: Mannheim Research Institute for the Economics of Aging (MEA) Authors: Kirsten H Alcser and others. 372 pg., April 2005
Short description of digital sources	Audio Read: Psychology of Retirement - YouTube The Psychology of Retirement: Tips for Readjusting   Psychreg The Top 10 Most Common Chronic Diseases for Older Adults (ncoa.org)









The expected Outcomes of the Integrated Lesson 2 – Retirement savings

#### Scientific and Technological Literacy

Results/ What we learned / Outcomes

At the end of the lessons students will be able to analyze the impact of savings in the quality of elderly and in the general state of health, and be able to calculate the amount of money necessary to implement a worthy life style in the last part of existence.

Effect of the Activity on students and teachers

#### Scientific and Technological Literacy

Conclusions and recommendations

Students and teachers will be aware of the important changes when retire in many aspects of life such as economical, social, health, spare time, familiar relationship, etc

At the end of the lesson, we will link the socio-economic and cultural status and the health of the retiree and the necessity of being prepared economically for retirement.









### MODULE 2 WORKSHEETS



Klik HERE or scan QR code for downloading Module 2 worksheets!









### INTEGRATED CURRICULUM - LESSON **PLANS**

### MODULE 3 - SCIENTIFIC AND TECHNOLOGICAL LITERACY









#### MATHEMATICAL LITERACY - SCIENCE TO IMPROVE OUR PLANET

Title	Science to improve our planet
Subject area	Mathematical Literacy
Description of educational activity	Student age: 15 - 18 Organization of the class of pupils: individual, pair, group work, whole class  The aim: using mathematical skills and competences to raise awareness of ecological issues  Support materials: internet sites, handouts, video clips, scientific articles  Evaluation and assessment method: During the activity: quizzes, infographics, peer assessment, presentation and discussion) Evaluation at the end of activity by students making presentations about the outcomes of the activity. Also, the students complete an evaluation form at the end of the activity.  Digital source: YouTube  Description of the activities (4 lessons): LESSON 1 - EM mud balls Teacher presents the general topic and gives short introduction Students do research on EM balls and do teacher-prepared tasks (calculations) and present the results in a diagram Students make a poster with the findings Students organize a sea-cleaning event  LESSON 2 - Dolphins in the Adriatic Sea Internet search by students on common dolphins Students of tasks Final comparison of the results and discussion  LESSON 3 - SALINITY AND TRANSPARENCY OF THE ADRIATIC SEA Introduction into the topic by the teacher Class discussion Internet research on the problems regarding the topic Students complete the task Final discussion  LESSON 4 - invasive species Introduction into the topic by the teacher Students complete the task (creating a bar chart, a graph) Students make a poster using Canva In all four lessons, students work individually, in pairs and in groups, starting from doing some research so they could complete the task that involve calculating, creating charts, diagrams, infographics and poster where their results are shown.









#### MATHEMATICAL LITERACY - SCIENCE TO IMPROVE OUR PLANET

Connection to curriculum

Mathematical and Scientific literacy

Grade 1 - 4

**Knowledge**: geometry, logarithms, graph of square function (parabola),

exponential functions, statistics

Skills: ICT tools, research, teamwork

Competence: using Mathematics and Biology to raise awareness of some

ecological issues

The expected Outcomes of the Integrated Lesson 1 - Science to improve our planet

Results/ What we learned / Outcomes

**Mathematical Literacy** 

Pupils will collect, analyze and present statistical data presented in different ways (charts, diagrams and Excel tables). They

will create a business strategy by applying the results of statistical analysis.

Effect of the Activity on students and teachers

Conclusions and recommendations

**Mathematical Literacy** 

Students will understand the importance of statistical analysis in business plans. They will employ an analytical approach to problems and strengthen the ability to argue.

At the same time, both teachers' and students' creativity will be boosted since the teachers will be guiding and encouraging students to analyze data and think of new creative solutions to the problems. Through the process of exchanging ideas and encouraging discussion and argumentation, they will also gain some new insights into the subject matter.









Title	ICTs to promote health and physical activity
Subject area	Mathematical Literacy
Description of educational activity	Duration: 30 days Student age: 15 - 18 Organization of the class of pupils: individual, group work, whole class  The aim of the lesson: using technology to promote healthy lifestyle  Support materials: internet sites, handouts, video clips, scientific articles, presentations, electronic devices (smartwatch/smartphone)  Evaluation and assessment method: quizzes, infographics, peer assessment, presentation and self-evaluation  Digital tools: GeoGebra, Bookwidgets, Padlet, Statistica  Activities: LESSON 1- Aerobic and anaerobic activity - mini project (track your progress)  Individually, students reflect on their habits and opinions and complete a short survey)  Students design their own workout plan and track their progress Individually, students compare their habits and opinions before and after the experiment and present the comparison through a bar chart  Students compare their results with each other  LESSON 2 - MARJANSKA SKALINADA (A VERTICAL MARATHON) Marjanska skalinada (a vertical marathon) vs. Split half-marathon - compare, analysis Research on aerobic and anaerobic activity (general information and advantages/disadvantages) Students do calculations (using GeoGebra or other digital tools) Students make a poster presenting their findings Class discussion
Connection to curriculum	Mathematical and scientific literacy grade 1 - 4  Knowledge: statistics, trigonometry, databases, measuring units conversion functions, statistics  Skills: ICT tools, research, teamwork, using digital apps, Math skills  Competence: scientific/research methodology  Digital source: YouTube, workout apps









#### SCIENTIFIC AND TECHNOLOGICAL LITERACY - ICTS TO PROMOTE HEALTH AND PHYSICAL ACTIVITY

The expected Outcomes of the Integrated Lesson 2 – ICTs to promote health and physical activity

#### **Mathematical Literacy**

Results/ What we learned / Outcomes

At the end of the lesson, the students analyze the effect human activity has on the nature, and especially on natural resources. They are able to think of alternatives in order to avoid wasting

they learn how to spend wisely and how to save both money and natural resources.

Effect of the Activity on students and teachers

natural resources, wasting money, so in that way,

#### **Mathematical Literacy**

Conclusions and recommendations

With the help of mathematical models, students understand what happens to natural resources and possible damage to the nature caused by human activity. Also, they are able to come up with alternatives and become aware that sometimes spending more money means saving the nature.

Teachers understand that using real life problems to teach mathematical concepts makes it easier for students to understand the subject matter (ratio, calculating volume, conversion of units).









Title	Science to improve our planet
Subject area	Media Literacy
Description of educational activity	Duration: 6 hours Students age: 15 - 18 Organization of the class of pupils: Group work; Individual work  The aim of the lesson: To raise awareness of the importance of the availability of accurate information and joint action with the aim of preserving the environment and biodiversity.  Support materials: - The Ball  Description of the activities BRAINSTORMING  1. First part of the lesson describes today's ecological problems that significantly affect the quality of life of people and other living beinggs. Students are introduced to the most common environmental problems of today through the following excercises:  Exercise 1: - By throwing a ball, students randomly choose one of the major environmental problems of the present and briefly describe it. Some of the most important ones are: - Acid rain - Greenhouse effect - Global warming - Rising sea levels - Soil pollution - Ozone holes - Uncontrolled deforestation - Lack of drinking water Teacher gives the announcement of the main topicThe drop that went around the world The focus of the topic is on water.  Task 1: Students can investigate why water is a substance with unusual properties. The 3:16-minute video Unusual Water can also help them in their research https://www.youtube.com/watch?v=mPpKhxtFflQ  Predicted results: - Why do we call Earth the Blue Planet? Approximately three-quarters of the Earth's surface is covered by water, so when viewed from space, the Earth shines with a bluish glow The water envelope around the Earth is called the hydrosphere. It includes all liquid and frozen surface water, underground water retained in the soil and rocks, and water vapor in the atmosphere. Of the total amount of water, 96.5% is oceans and seas, 1.7% glaciers, 1.7% surface and underground water and 0.001% water in the atmosphere.









• Water is the main ingredient of all living things. Water is the most common chemical compound in the human body. The proportion of water in the human body changes with age. For example, the proportion of water in a newborn's body is 80%, in adulthood a person has 60 to 65%, and in old age 55%. All chemical reactions in cells take place in water. This is why lack of water causes death faster than lack of food.

- Drinking water supplies have been reduced by increasing pollution of natural waters. Substances that cause pollution can come from different sources. Fertilizers and pesticides used in agriculture seep from the soil into water and pollute it. Municipal wastewater contains organic waste, detergents, compounds of heavy metals, oil derivatives and various other substances that reach natural waterways. There, they are broken down in oxidation processes, consuming the available dissolved oxygen, which results in the death of living beings.
- Water consumption and reduction of drinking water supplies is most pronounced in areas with the largest number of inhabitants. It is obvious from above that there is less and less clean water on Earth. Therefore, we must pay much more attention to preserving quality living conditions.

### Description of educational activity

#### Exercise 2:

Life cycle in a bag (water circulation)

Experiment procedure:

https://www.youtube.com/watch?v=VZB44\_X0pFw

#### Instructions:

• For this experiment, students will need a plastic bag with a zipper in which they will put sand/gravel (approximately 1 cm high), add about \( \frac{1}{4} \) cup of colored water and place it on a sunny window or under bright light. With a waterproof felt-tip pen, have them draw the parts of the water cycle that they depict. Let the students stick the bags on a sunny window and observe for a few days and draw conclusions. Meanwhile, let the students draw predictions of what the circular flow of water looks like in nature.

#### Questions for discussion:

- · What do you think will happen?
- · Why do you think that?
- · What really happened?

#### Exercise 3:

- Teacher presents the video about floods in the Republic of Croatia and the region (Županja) or any similar video refering this issue. (This video is produced by Croatian students in cooperation with the Native Museum of the town of Županja)
- The goal is to show some of the ultimate consequences of climate change on the lives of people, animals, and cultural assets.
- After watching the video let students discuss and express their opinions on this phenomena.









#### Exercise 4:

- The amount of rainwater is expressed in millimeters, and when it is said that 1 mm of rain has fallen, it means a layer of water 1 mm thick on 1 m 2
- Teacher sets the students to the task of calculating how many liters of water that is.
- Teacher devides the students into groups and go out into the yard with them when you expect it to rain and place open models of cubes and cuboids in the yard. The number of models depends on number of student groups.
- Leave the models for 24 hours and then have the students measure how much water has entered them.
- After the measurement, each group will calculate how many mm of rain fell during the measurement interval
- · Let the groups compare their results
- Let the students discuss with their parents what is their monthly household water consumption as well as the price for 1 m3.
- Teacher talks to the students about the benefits of rainwater harvesting
  while emphasizeing the fact that they are not only economic, but also
  ecological. By collecting the rainwater we reduce the possibility of
  erosion and flooding and save water from underground sources. Final
  conclusion is sociological as well while taking care on wather we
  become more resistant to droughts and prevent the climate changes.
- Let the students display their results and conclusions on a common Padlet wall or any other application tool you find suitable.

#### 2. In the second part of the lesson students can investigate the data on monthly amount of precipitation in their cities.

- Based on collected informations, and information on how much water their household consumes per month, they can make a calculation on number of rainy months that should satisfy for their monthly water needs.
- https://www.climatestotravel.com/climate/croatia/zagreb
- Precipitation amounts to 515 millimeters (20.3 inches) per year. It ranges from 20 mm (0.8 in) in the driest month (July) to 65 mm (2.6 in) in the wettest (December). Therefore, the rains are not abundant, even though they are quite frequent from October to May. Here is the average precipitation.

# 3. In the third part of the lesson teacher gives a Project task to the students Teacher informs students on their Country state of the art regarding laws, agreements and civil rights possibilities that enabels them to act personally and positively towards their future regarding 21. Century burning issues in environmental and water protection.

In democratic societies, people have the right to free access to information in the field of environmental protection, as well as the right to participate in decision-making processes on environmental issues. And yet, during a long series of years, the state of the environment, as well as the impact of various activities on it, were kept secret. The Republic of Croatia signed and ratified the Aarhus Convention (1988), which stands on 3 pillars:

1st Pillar Right to access information

- 2. Pillar Right to public participation in decision-making on environmental issues
- 3. Pillar Right to access justice in environmental matters

Description of educational activity









It obliges the government to include the public in the decision-making process in the case of waste management projects and activities, industrial production, construction of dams and roads, mining, energy and chemical production, as well as other activities, but also to leave enough time to prepare a response. Moreover, the authorities are obliged to organize a public hearing for each individual proposed project. If citizens feel that they are not provided with free access to necessary information or participation in decision-making, they can seek their rights in court. In this case, the authorities must ensure free or very open access to justice.

The role of civil society organizations in education for sustainable

The role of civil society organizations in education for sustainable development CSOs have been engaged in raising the awareness of citizens and institutions for years, and work on a kind of marketing that promotes sustainable development and various types of education, starting from basic information about sustainable development, its importance, to concrete measures that each of us, as well as the public sector, can undertake.

#### Project task - Youth Media Challenge: Engineering for Good

- Students will put themselfs in the role of journalists and interwiev their peers, their parents/families and citizents by prompting possible questions for discussions. This will require students to analyze information about environmental/water topics and build arguments supported by evidence.

#### Questions:

- Are you an optimist or pessimist about our ability to take on Climate Change?
- · Is Earth Running Out of Water?
- What would be you personal contribution in taking personal responsibility for water issues?
- Is the government taxation the best way to slow climate change?
- · Which is the role of new technologies in conservation efforts?
- How can civil wrights movements effect on environmental changes?...etc.
- Students will make a report about the information collected through interwiews
- Students will make a short video to communicate their solutions on water issues with an emphases on the role of civil society organizations in education for sustainable development.
- The video can be published throught various media channels, starting their school web-pages up to the online nationwide showcase.
- The video will represent useful material for potential actions on this topic reaching civil society organisations or Government bodies as decision makers.

Connection to

Description of

educational activity

#### Grade: 4

Curriculum: Biology, Environment, Civil society, Media literacy Knowledge: Science and systems knowledge based on water's unique scientific properties and its significance for living systems; Local knowledge encompasing an understanding of local water sources, water infrastructure, and current water demands and uses;









Connection to curriculum	Functional knowledge representing a bridging knowledge set that connects water-related knowledge to real world applications by underscoring the difference between how water is currently used and how water should be used.  This includes awareness of how to use water sustainably, how to conserve, and how to protect and/or restore water.  Skills: Behavioral skills on water literacy including individual action and collective action. Individual action refers to the actions of single persons or households, who make informed and responsible decisions about water resources that have the capacity to reduce individual impact on water quality and water quantity. In contrast, collective action refers to the water-conscious actions of a large group of people. It is the act of making informed decisions at a societal level, in order to reduce the collective impact of humans.  Competences: Water-related knowledge represented by the attitudes and values competences set. Water literacy will include competences on attitudes toward watershed health, a scientific water attitude, regionally-specific elements such as valuing the role and function of the country water resources.	
Short description of digital sources	Unusual Water, https://www.youtube.com/watch?v=mPpKhxtFf1Q	
The expected Outcomes of the Integrated Lesson 1 - Science to improve our planet		
Results/ What we learned / Outcomes	Media Literacy  High school students will identify the specific pending issues that need to be tackled in relation to the main implementation challenges related to Water and Water Resources Management.  They will make proposals on the role of different actors and how they can contribute, specifically Governments (including local governments), civil society, and media.	
Effect of the Activity on students and teachers		
Conclusions and recommendations	Media Literacy Benefits for Students:  1. Improved Critical Thinking Skills: Water-knowlidge and media literacy enable students to think critically and make informed decisions based on evidence and data.  2. Enhanced Communication Skills: students are enabled to express their ideas clearly, effectively and appropriately.  3. Improved Understanding of Science Concepts: Allows students to develop a deeper understanding of science concepts and to see the relevance of science in their everyday lives.	









Effect of the Activity on students and teachers

#### **Media Literacy**

#### **Benefits for Students:**

- 1. Improved Critical Thinking Skills: Water-knowlidge and media literacy enable students to think critically and make informed decisions based on evidence and data.
- 2. Enhanced Communication Skills: students are enabled to express their ideas clearly, effectively and appropriately.
- 3. Improved Understanding of Science Concepts: Allows students to develop a deeper understanding of science concepts and to see the relevance of science in their everyday lives.
- 4. Increased Awareness of Media Influence: Helps students to understand how media messages influence their beliefs, behaviors, and attitudes.
- 5. Increased Engagement: Interdisciplinary approach in the classroom leads to student better understanding of environmental/water suistanibility topic.

Conclusions and recommendations

#### **Benefits for Teachers:**

The knowledges on water issues highlight that the concept of water literacy is multi-faceted and complex. Identification of common elements and knowledge sets provides a holistic framework for water literacy on which teachers can build their personal and specific teaching knowlidges on the topic.

This can improve:

- Teachers pedagogical skills when promoting student-centered learning and allow students to become active learners.
- Teachers content knowledge: Integrating literacy, scientific and media literacy ensures teachers become more knowledgeable and competent in their subject matter.
- Teachers increased creativity: While integrating different subjects teachers are allowed to become more creative and innovative in lesson planning and delivery.
- Improved Collaboration: With integrated literacy, scientific and media literacy, teachers are encouraged to collaborate with their peers in different subjects to create cohesive lesson plans, and work together in develop complementary materials that help students better engage and understand the interconnectedness of different subjects.









Title	ICTs to promote health and physical activity
Subject area	Media Literacy
Description of educational activity	Duration: 4 hours (45 minx4) Students age: 15 - 16 Organization of the class of pupils: Group  The aim of the lesson: To make the students aware of the link between physical activity and health, which directly affects the quality of life. To introduce them to some ITC apps. that can improve their physical activities and wellbeing.  Support materials: - tables with daily activities (diary) - materials with a description of projects implemented by individual European countries with the aim of promoting physical activity among young people - colored self-adhesive tape  Description of the activities  1. First part of the lesson: Students are introduced to the fact that physical activity is a basic human need from birth to old age.  Teachers introduction: The human body is primarily built for regular physical activity enables optimal functioning and development. It is for this reason that there is an inextricable link between physical activity and health, which directly affects the quality of life. Children are today less physically active due to a sedentary lifestyle, which has large health consequences. Therefore, it is important to influence children's activity from an early age.  Opening Question: Do you practise any sports? Do you exercise regularly? How many minutes a day do you spend exercising? Do you think regular physical activity is important? Why is exercise beneficial?  Teacher: The modern way of life has changed the life habits, not only of adults, but also of children. Children increasingly use fast food and large quantities of sweet (carbonated) drinks. Research has shown that the consumption of sweet fruit juices is one of the main culprits of obesity in children. Children spend more and more time indoors with computers and television, and they walk less and less from home to school. On the other hand, watching television is associated with an increased intake of fast food and a decreased intake of fruits and vegetables.  The consequence of the above is the increasing obesity in children. The fact t









#### 2. Part of the lesson

#### Student exercises:

Exercise 1: Igra Školice (hopscotch)

Hopscotch is an old game that dates back to Rome and there are many variations, and we will show you some.

#### Instructions:

- Draw squares on the floor with tape and mark them with numbers.
- The player will stand in front of the square marked with the number one
- The player throws a pebble into the square.
- Then he jumps into the square using one leg, jumps to the last square, turns around and when he stops on square

number 1 again, takes a stone and jumps out.

- Then he throws a stone into field number 2, jumps to the end, turns around, picks up a stone in another field and jumps out and so on until he conquers all the fields.
- If the player fails to hit the given field, stands on the line or loses balance and touches the floor with his hands, he loses his turn and then the opponent plays.
- When the opponents take their turn, the player continues playing where he left off.
- The winner is the one who finishes all the boxes first!
  In our version of the game, each field can have a special task with the topic related questions (proposed questions are attached).
  For randomised pop-up questions students can use e.g. Test-moz application (https://testmoz.com/)

Description of educational activity

#### Exercise 2: The game of parliament

- Divide students into pairs
- Randomly assign each pair a sheet with a description of activities and programs related to the promotion of physicalactivity and health in certain countries of the European Union.
- After familiarizing themselves with the material, they introduce the same to the other students.
- Following a discussion of the advantages and disadvantages of individual projects. Which project would you choose as the best one?

  Students can use aplication for comunication and interactive learning ALTII (https://audit.altii.online/)

#### 3. part of the lesson

Students take the role of urban gardens architect.

- They use the digital tool Padlet to design urban gardens on the roofs of their city buildings.
- They choose the plants they will grow with regard to the amount of light, water availability and other abiotic factors.
  - For this they can use e.g. Blossom app (https://blossomplant.com/)
- Finally they present their virtual gardens on Padlet.

#### 4. part of the lesson – Media promotion - Flash mob

**Exercise 3**: Dance lesson Jerusalema (https://www.youtube.com/watch? v=6efHtpJK-Ns2)

- Students will learn a few simple steps on the world-famous Jerusalema song.
- Students practice the steps and at the very end they record a video for the Flash-mob presentation.









- The performing video is produced and published on social networks and chanells promothing popular culture and health.

#### Project task - Food marketing

**Task 1.** Teacher devides student in groups and introduces them with following topics:

- Group 1. Food Marketing Series: Teen Module (https://youtu.be/qy4utlhtdXl)
- Group 2. How Food Commercials Are Made (https://youtu.be/d7iSFl5cp84)
- Group 3. Neuromarketing: How Brands are Manipulating Your Brain (https://youtu.be/nNbDw4NUf-Q)
- Group 4. Marketing food to children (https://youtu.be/0bop3D7-dDM)
- Group 5. What social media is teaching us about food, life, and health (https://youtu.be/zFqyYO-WdUE)
- Students present their impressions and opinions at open discussion

#### Task 2. Advertisements of "Real Foods"

Students are to create their own catchy, colourful advertisements or marketing campaigns for "real" foods. But first, what is a "real food"?

Some examples might be: fruits, vegetables, whole grains, sustainability produced animal products, foods made from scratch, foods that promote health and well being...

While making successful advertisements consider:

- The target audience
- The medium (e.g. TV, radio, newspaper, magazines, billboards)
- · Slogans (e.g. Croatia Grows the Most "A-Peeling" Apples!)
- Jingles (if making a TV or radio advertisement)
- · Choice of colours, font, pictures or graphics to reach the target audience
- · Any "hooks"
- · Nutrition or Health Claims
- You might also choose to add a local food element to the project, asking students to research what is grown or produced locally in their Country for their ad.

#### Concluding Ideas: Strategies for YOU!

- Analyze packaging thoroughly. What marketing techniques are they using? What are they trying to cover up? Are they targeting you especially?
- Don't always buy the most expensive product thinking it's going to be the better (in taste, texture and nutrition).
- Don't be fooled by characters, celebrities or bright colours on ads. Celebrities are being paid to do a job – they might not really use or eat that product!
- Buy foods without packaging (fresh fruits and vegetables for example). Shop around the outside of the supermarket this is where the less processed food is.
- Turn down the TV or radio during advertisements.
- Let your taste buds and food knowledge be the judge don't let other people infuence you just because it's "cool" or trendy.
- Feed your body well for the most energy, vitality, strength and brainpower!

Description of educational activity









Grade: 1

Curriculum: Biology (Botanics), Physical education, Media literacy

**Knowledge:** Understanding the fundamental connection between physical activity and overall health and quality of life.

Awareness of the impact of modern lifestyle choices on physical activity levels and health, including sedentary habits and dietary preferences. Knowledge of various ICT applications that can enhance physical activities and promote well-being.

**Skills:** ICT Skills: Proficiency in using ICT tools and applications to support and enhance physical activity and well-being.

Data Management: Competence in recording and analyzing personal physical activity data using mobile devices and applications. Critical Thinking: Evaluating the advantages and disadvantages of different projects and programs aimed at promoting physical activity and health. Communication and Presentation: Effectively conveying information about projects and initiatives related to physical activity and health to peers. Design and Planning: Utilizing digital tools to create and plan urban gardens, considering factors like light, water availability, and other environmental conditions.

Competences: Healthy Living: Demonstrating the ability to integrate ICT tools into daily life for the purpose of maintaining a healthy and active lifestyle. Digital Literacy: Applying digital skills to access, evaluate, and utilize information related to physical activity and well-being. Collaboration: Working together in pairs or groups to understand and present projects promoting physical activity and health. Critical Analysis: Assessing food marketing strategies and discerning between real and potentially misleading claims. Media Literacy: Analyzing and interpreting media messages related to food marketing, and making informed choices about nutrition and well-being.

These knowledge, skills, and competences are designed to empower students to make informed decisions about their health and physical activity while leveraging ICT tools for their well-being. They also foster critical thinking and digital literacy skills that are essential for navigating today's information-rich environment.

Short description of digital sources

Connection to

curriculum

- Food Marketing Series: Teen Module (https://youtu.be/qy4utlhtdXI)
- How Food Commercials Are Made (https://youtu.be/d7iSFI5cp84)
- Neuromarketing: How Brands are Manipulating Your Brain (https://youtu.be/nNbDw4NUf-Q)
- Marketing food to children (https://youtu.be/0bop3D7-dDM)
- What social media is teaching us about food, life, and health (https://youtu.be/zFqyYO-WdUE)
- Testmoz (https://testmoz.com/)
- ALTII (https://audit.altii.online/)
- Jerusalema https://www.youtube.com/watch?v=6efHtpJK-Ns2
- Blossom (https://blossomplant.com/)









The expected Outcomes of the Integrated Lesson 2 - ICTs to promote health and physical activity

#### **Expected Results/Outcomes:**

- Increased Awareness of the Importance of Physical Activity: Students will have a deeper understanding of the critical connection between regular physical activity and overall health and well-being. They will recognize the impact of sedentary lifestyles on their health. Familiarity with ICT Applications: Students will become acquainted with various ICT applications and tools that can be utilized to enhance their physical activities and promote a healthier lifestyle.
- Improved Data Management Skills: Students will have the ability to record and analyze their physical activity data using mobile devices and applications, enabling them to make informed decisions about their fitness routines.
- Enhanced Critical Thinking: Through discussions and evaluations of different projects promoting physical activity and health, students will develop critical thinking skills, allowing them to assess the effectiveness and potential benefits of various initiatives.
- Competence in Using Digital Tools for Design and Planning: Students will gain proficiency in using digital platforms like Padlet and Blossom for creating urban gardens, taking into account environmental factors like light, water availability, and more.
- Media Literacy and Awareness of Food Marketing Strategies: Students will learn to critically analyze food marketing techniques and differentiate between genuine health claims and potentially misleading messages.
- Improved Communication Skills: Students will be able to effectively convey information about projects and initiatives related to physical activity and health to their peers, demonstrating enhanced communication abilities.
- Application of Knowledge in Real-Life Scenarios: Students will be able to apply the knowledge and skills gained in the lesson to their everyday lives, making informed decisions about their health and well-being.
- Increased Digital Literacy: Students will develop digital literacy skills that allow them to access, evaluate, and utilize
- information related to physical activity and well-being in an increasingly digital world.
- Collaborative Learning: Through group activities and discussions, students will have opportunities to work together, share
- ideas, and learn from one another, fostering a sense of collaboration and teamwork.

#### What We Learned:

The lesson emphasizes the importance of physical activity for overall health and quality of life. It highlights the impact of modern lifestyle choices on physical activity levels and health outcomes.

Students gain knowledge about various ICT applications that can support and enhance physical activities and promote well-being.

Results/ What we learned / Outcomes









The expected Outcomes of the Integrated Lesson 2 - ICTs to promote health and physical activity

Results/ What we learned / Outcomes

They learn how to use digital tools to plan and design urban gardens, considering environmental factors.

The lesson also teaches critical thinking skills in evaluating projects and programs aimed at promoting physical activity and health.

Students develop media literacy skills, enabling them to critically analyze food marketing strategies.

Overall, the lesson equips students with a holistic understanding of the relationship between physical activity, health, and the role of ICT in promoting well-being. It empowers them to make informed choices about their lifestyle and health habits.

Effect of the Activity on students and teachers

#### **Media Literacy**

**Students** will identify current uses for and impacts of technology in society as well as recognising the rapidly evolving and dynamic nature of technology. They understand the ways in which technology is shaping the way society and workplaces function for example mobility, 24/7 access etc. and its possible implications for future use. Students understand the benefits of wearable technology especially on health and wellbeing (fitness, sleep tracking or health and food).

#### Effect of the Activity on Students:

- Increased Awareness: Students become more aware of the importance
  of physical activity and its direct impact on their health and quality of
  life. They gain a better understanding of the risks associated with a
  sedentary lifestyle.
- Digital Competence: Students develop digital competence as they learn to use various ICT tools and applications for tracking physical activity and planning healthy routines.
- Critical Thinking: The activity enhances critical thinking skills by encouraging students to evaluate different initiatives promoting physical activity and health. They learn to assess the effectiveness of such projects.
- Collaborative Learning: Through group exercises and discussions, students engage in collaborative learning, sharing ideas and opinions with peers. This promotes teamwork and communication skills.
- Media Literacy: Students gain media literacy skills by analyzing food marketing strategies, helping them make informed choices about the foods they consume.
- Practical Application: The activity equips students with practical knowledge and skills that they can apply to their daily lives to make healthier choices and incorporate physical activity into their routines.

#### Conclusions and recommendations









#### **Effect of the Activity on Teachers:**

- Teachers will discover how integration of advanced and appropriate ICT systems can help to increase physical activity in schools. Positive outcomes of integration of effective ICT systems for increased physical activity can improve teaching and learning environment, gain higher overall quality and accessibility of education and learning motivation.
- Enhanced Teaching Strategies: Teachers learn how to integrate digital tools and ICT applications into their teaching methods, making lessons more engaging and relevant.
- Cross-Disciplinary Approach: Teachers are exposed to a crossdisciplinary approach that combines biology, physical education, and media literacy, expanding their horizons and teaching methods.
- Promotion of Critical Thinking: Teachers are encouraged to promote critical thinking in students through discussions and evaluations of health-related initiatives.
- Technological Proficiency: Teachers improve their technological proficiency as they explore and implement various digital platforms and applications in the classroom.
- Collaboration and Networking: The activity fosters collaboration among teachers, allowing them to share ideas and teaching strategies. They can also network with educators from other institutions, promoting the exchange of best practices.

#### Conclusions:

- The activity effectively addresses the need to raise awareness about the importance of physical activity and its connection to health among students.
- It successfully integrates ICT tools into the curriculum, enhancing students digital competence. The cross-disciplinary approach enriches the learning experience by connecting biology, physical education, and media literacy.
- Critical thinking skills are promoted through the evaluation of healthrelated initiatives and food marketing strategies.
- The activity encourages collaborative learning and teamwork among students.

#### **Recommendations:**

- Encourage the integration of similar cross-disciplinary activities that promote health and well-being into the curriculum.
- Provide ongoing training and support for teachers to enhance their digital literacy and teaching methods.
- Promote further collaboration among teachers, both within the institution and with educators from other schools, to share best practices and innovative teaching approaches.
- Continue to emphasize the importance of media literacy to help students critically assess marketing messages related to food and health.
- Explore opportunities for expanding the use of ICT tools in other subject areas to enhance student engagement and learning.
- Evaluate the long-term impact of such activities on students health habits and well-being to measure the effectiveness of the curriculum integration.

Conclusions and recommendations









# FINANCIAL LITERACY - SCIENCE TO IMPROVE OUR PLANET

Title	Science to improve our planet
Subject area	Financial Literacy
Description of educational activity	4 hours (180 min) Students age: 15 - 16 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The aim of the lesson is to make pupils understand the terms carbon footprint, its causes and social and economic consequences, eco-friendly houses and their role in decreasing carbon footprint and thus economic consequences. Students will also compare the cost of living in a common house and an eco-friendly passive house.  Support materials: Internet, carbon footprint calculator, linoit, Padlet, Canva, Genial.ly  Handouts:  presentations_Genial.ly  videos  padlet  linoit  Evaluation and assessment method: The students will be able to calculate their own footprint. Pupils design their own eco-friendly house and explain how each part of it can contribute to the decrease of carbon footprint. The students will be able to present their own eco-friendly houses. Also, the students complete an evaluation form at the end of the activity. Peer assessment  Effect of the activity on students and teachers: STUDENTS: Pupils understand how modern technologies can contribute to the decrease of carbon footprint and consequently to the lower cost of living.  TEACHERS: Teachers can apply the activities in their own subjects.  Description of the activities: 1. Brainstorming: students answer the following simple questions: 1. How do you come to school? 1. How often do you charge your mobile? 1. How many electrical appliances do you have at home? 1. How often do you by clothes?  Carbon footprint explanation:  Before the teacher's explanation students try to write their own suggestions to the following tool:  http://linoit.com/users/tatianachocholova/canvases/Carbon%20footprint









# FINANCIAL LITERACY - SCIENCE TO IMPROVE OUR PLANET

Now the teacher can explain what it is, the presentation is prepared in aenial.ly:

https://view.genial.ly/63da4314c686c40012af41ea/presentation-science-to-improve-our-planet

The presentation includes also a video explaining the topic. It's up to the teachers if they use it or not. Students calculate their carbon footprint: There is the link inserted in the presentation:

https://climate.selectra.com/en/carbon-footprint/calculator

- 2. Now students work in groups and try to write as many consequences as they can. There is a table in the presentation showing the most common ones
- 3. Ask students if they think that we can measure the cost of carbon footprint and if yes what is taken into consideration a short discussion.
- 4. Now the teacher explains the explanation is included in the presentation.

Description of educational activity

- 5. What we can do about it? Students have a lot of knowledge of this topic so they can write their suggestions here:
- https://padlet.com/taanya1jakub/carbon-footprint-7gimbdyjwm6t5br of course each teacher will create their own Padlet or use any other platform.
- 6. Ask students if they know what eco-friendly houses are and if they can name any types.

Explanation: presentation with a short video and types of such houses.

7. Students will find out how much energy used for heating can be saved in a passive house compared to a standard

house. Given the prices of energy in their country they will try to calculate how much money they could save.

- 8. Students will design their own eco-friendly house and explain how each part of it can contribute to the decrease of carbon footprint. They can use Canva, Genial.ly, etc. for their outcomes.
- 9. The students present their designs and describes their houses and how they houses will work.

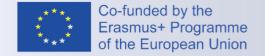
Connection to curriculum

Grade: Secondary: 1.-2. Grade Curriculum: Financial Literacy

**Knowledge:** Pupils understand how modern technologies can contribute to the decrease of carbon footprint and consequently to the lower cost of living

Skills: Pupils are able to find and understand the prices of energy in their country. They will improve their digital skills, analyzing skills, communication skills. They will improve their skills in creating outcomes in Canva, Genial.ly. As well within these activities their social skills and Teamwork will be enhanced.

**Competence**: Pupils know what houses can save them money and at the same time protect the environment.









# FINANCIAL LITERACY - SCIENCE TO IMPROVE OUR PLANET

Short description of digital sources	<ul> <li>https://climate.selectra.com/en/carbon-footprint#what-is-carbon-footprint (digital tool for counting the carbon footprint)</li> <li>https://climate.selectra.com/en/carbon-footprint (digital tool for counting the carbon footprint)</li> <li>https://www.youtube.com/watch?v=8q7_aV8eLUE (youtube video for explaining the carbon footprint)</li> <li>https://www.edf.org/true-cost-carbon-pollution (internet source about the true cost of carbon pollution)</li> <li>https://news.stanford.edu/2021/06/07/professors-explain-social-cost-carbon/#Definition (internet source about the social cost of carbon)</li> <li>https://www.weforum.org/agenda/2022/12/climate-europe-gdp-emissions/(internet source about the cost of climate change)</li> <li>https://climate.selectra.com/en/advice/eco-house (internet source about Eco-friendly houses: Characteristics, prices and examples)</li> </ul>
I ne expected Out	comes of the Integrated Lesson 1 – Science to improve our planet
Results/ What we learned / Outcomes	At the end of the lesson pupils understand how modern technologies can contribute to the decrease of carbon footprint and consequently to the lower cost of living. They are able to find and understand the prices of energy in their country and know what houses can save them money and at the same time protect the environment. They design their eco-friendly house.
Effect of the Activity on students and teachers	
Conclusions and recommendations	Financial Literacy  Pupils are able to distinguish between eco-friendly economical housing and conventional way of living. Teachers will be provided with new resources which they can implement in their lessons and they will be encouraged to educate themselves in up to date topics and information.









Title	ICT to promote health and physical activity
Subject area	Financial Literacy
Description of educational activity	Duration: 3 hours (135 min) Students age: 15 - 16 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The aim of the lesson is to make pupils aware of the importance of physical activities leading to a healthy lifestyle and applications which can help them to achieve it. Students will also understand the importance of insurance in the case of an illness or other life situations that can have a negative impact on their financial situation.  Support materials: Internet, apps, Canva, Genial.ly  Handouts:  presentations  Evaluation and assessment method: Pupils create a list of applications helping people to lead a healthy life. They create a comparison of the financial impact of a healthy and unhealthy lifestyle. Also, the students complete an evaluation form at the end of the activity. Peer assessment.  Effect of the activity on students and teachers: STUDENTS: Students will also understand the importance of insurance in the case of an illness or other life situations that can have a negative impact on their financial situation.  TEACHERS: Teachers can apply the activities in their own subjects.  Description of the activities:  Brainstorming: Students will identify pictures depicting healthy lifestyles and explain their choice.  They will discuss what they personally do to be healthy. (a teacher can ask about nutrition, physical activities, stress, sleep, outdoor activities, education)  Chritical thinking activity: Debate on the following theme:  Obese people should pay higher levies to the health insurance company. The students are divided into 2 teams. Their task is to find three pros and three cons. They should use the internet where they have to find some supporting information from the health insurance company and social insurance company. The teacher must be careful while leading this debate as it shouldn't lead against the obese people as some people can suffer from obesity from health issues.  Students will work in pairs and try to find a connection of health









Description of educational activity	Questions:  Why should we take care about our health?  Is health connected with finances?  How can our lifestyle influence our financial situation?  A teacher can ask students how much time they spend doing any physical activities.  There are many online applications which can help us to stay healthy. Ask students if they know any and if which of them they use.  Task:  Students will make a list of the most useful apps they can find with their uses. They can use any platform to make it.  The aim of the next step is to make students understand that when doing sports or any other activities they can get injured and in that case they can lose their income. Here a teacher will explain the concept of insurance. In the following presentation I explained the Slovak system of insurance so if used in a different country this part needs to be adjusted. https://view.genial.ly/640899dd2ded6f0011b8436/presentation-insurance-ict-to-promote-health-and-physical-activity  Outcome  Financial comparison – the students work with the internet where they do their research about the prices of groceries and medical treatments and medication.  Their task is to make a comparison of the prices of the groceries (fruit, vegetable) which are considered as healthy food thus the price of a healthy lifestyle versus unhealthy lifestyle ( the prices of cigarettes, alcohol, medication needed for curing high cholesterol level or high blood pressure, etc.)  Their task is to compare the expenses of a person living a healthy lifestyle versus a person living an unhealthy lifestyle.  The students create this comparison in Canva, Genial.ly, Prezi, etc
Connection to curriculum	Grade: Secondary: 12. Grade Curriculum: Financial Literacy  Knowledge: Students understand how the system of insurance in their country works. They understand they financial consequences of a healthy and unhealthy lifestyle.  Skills: They can use some health promoting applications. They will improve their digital skills, analysing skills, communication skills. They will improve their skills in creating outcomes in Canva, Genial.ly. As well within these activities their social skills and Teamwork will be enhanced.  Competence: Students are aware of the importance of physical activities.
Short description of digital sources	<ul> <li>https://www.who.int/news-room/fact-sheets/detail/physical-activity#:~:text=Regular%20physical%20activity%20is%20proven,of%20life%20and%20well%2Dbeing (internet source about How much of physical activity is recommended)</li> <li>https://www.saia.sk/_user/documents/Euraxess/publikacie/Social_security_Slovakia_11_2014-final_bookmarks.pdf (internet source about Social security and health insurance in Slovakia - your rights and duties)</li> <li>https://www.employment.gov.sk/en/social-insurance-pension-scheme/social-insurance/social-insurance-2.html</li> </ul>









The expected Outcomes of the Integrated Lesson 2 – ICT to promote health and physical activity

**Financial Literacy** 

Results/ What we learned / Outcomes

At the end of the lesson pupils understand the importance of physical activities leading to a healthy lifestyle and pplications which can help them to achieve it. Students also understand the importance of insurance in the case of an illness or other life situations that can have a negative impact on their financial situation.

Effect of the Activity on students and teachers

Conclusions and recommendations

**Financial Literacy** 

Students understand how the system of insurance in their country works. They can use some health promoting applications.

Students are aware of the importance of physical activities.

Teachers will be provided with new resources which they can implement in their lessons and they will be encouraged to educate themselves in up to date topics and information.









#### SCIENTIFIC AND TECHNOLOGICAL LITERACY - SCIENCE TO IMPROVE THE ENVIRONMENT

Title	One small step in the surroundings
Subject area	Scientific and technological literacy
Description of educational activity	Duration: 9-10 sessions Students age: 12-16 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The objective of this lesson is to improve the knowledge and commitment of our students with the natural environmental medium through close resources that we have in the high school, making them conscious that individually and with small actions everybody can help the planet.  Support materials: Internet Videos  Description of the activities TASK 1: Introduction to the lecture by showing the video The age of man: The Anthropocene After watching the video, students debate about these topics: What are the main environmental problems mentioned? What inconvenient facts did Vikings face up to? What did it happen with the Maya civilization? What's did it happen with the Maya civilization? What's did it happen in Edo? List the main initiative that are proposed in the video. Brainstorm: environmental concerns that we can help reduce with our actions.  TASK 2: Teacher from two different subjects, biology and ICT, give a lecture (30 min) to the class introducing and briefly explain the topics: Environmental impacts Overexploitation of natural resources The energy problem Pollution Waste management Protecting the environment  TASK 3: Students will individually analyze the measurements of the weather station that is located in the high school. The data obtained from it will be used in order to analyze:  The change of temperatures over time The relationship between temperature and pollen production The relationship between the water registered and the water accumulated in the reservoirs









#### SCIENTIFIC AND TECHNOLOGICAL LITERACY - SCIENCE TO IMPROVE THE ENVIRONMENT

Description of educational activity	TASK 4: The youngest students will participate in a day of collective waste collection in the surroundings, and they will deposit the waste in the correct trash cans.  TASK 5: The oldest students of the fourth course, working in groups, will prepare a video based on the waste collection, taking photos, asking the participants, showing the trash cans, measuring the quantity of rubbish obtained and other curiosities. They will take the images with the iPhone and they will edit them in a video.  TASK 6: Students will prepare a trash can locator map. They will use a customized google map where they locate the different bins. When the mouse approaches the bin symbols a photo and a question will appear that should be answered by them.  ITC applications:  1. Google maps  2. Video editor: Kdenlive  3. Mobile editor: iMovie  Assessment  Procedures:  Observation of individual and team work.  Evaluation of the final product of each team: the video quality and the trash locator map.  Degree of participation in the waste collection activity.  Criteria:  Appropriate use of digital applications  Use of scientific language  Appropriate use of vocabulary  Pronunciation and speaking skills  Creativity
Connection to curriculum	Grade: Secondary, 1- 4. From Biology and ICT curricula:  SKILLS  - Critical thinking about ecological issues  - Speaking fluency  - Correct use of vocabulary  - Creativity in the final products: ability for catching target audience.  - Learn to use different digital tools  KNOWLEDGE  - Identify the main impacts of human beings in the environment.  - Become committed to promote a better environment in a local way.  - Become aware of the rubbish that people throw recklessly to the ground.  - Appreciate a clean and healthy environment  - Use image, audio and video capture devices and use specific software to edit the information and create new materials in various formats  - Carry out activities that require sharing resources in local and virtual networks.









#### SCIENTIFIC AND TECHNOLOGICAL LITERACY - SCIENCE TO IMPROVE THE ENVIRONMENT

Connection to curriculum	COMPETENCES  1 Linguistics  Reinforce and achieve natural medium vocabulary.  Present communications, comments, or questions to the rest of students.  2 Mathematics  Analyze data from the weather station.  Represent data in graphs showing the variation in temperature, quantity of pollen or water accumulated.  Interpret graphs and draw a possible relationship between different atmospheric factors.  3 Social  Be respectful of the natural surroundings.  Reject activities that cause degradation in the environment.  Value of small actions can have a great effect when carried out by everybody.  4 Digital  Present information using available sources and organize data.  Use ICT to make, edit and present photos, videos and graphs.  Manage strategies to identify and solve hardware and software problems and take advantage of and critically analyze the information provided.
Short description of digital sources	<ul> <li>Video: The age of man: The Anthropocene:         https://youtu.be/wJAbHssn0Gl     </li> <li>Trash can locator map: RECYCLING: RUBISH BINS AROUND THE SCHOOL</li> <li>https://www.google.com/maps/d/edit?mid=1MbzS4FVirWZiIFMAjkTq-5e1KOCkwlM&amp;amp;usp=sharing</li> <li>https://www.google.com/maps/d/edit?         mid=1Kxxi5yFtz3Q0fGrJHjjgzodzPCI_jq4&amp;amp;usp=sharing</li> <li>https://www.google.com/maps/d/u/0/edit?         mid=1tVyhunhnMXheR_OzlIg0ycCC0vdiLMg&amp;amp;usp= sharing</li> </ul>
The expected Outcor	nes of the Integrated Lesson 1 – Science to improve the environment
	Scientific and Technological Literacy
Results/ What we learned / Outcomes	By the end of the lesson students will develop an awareness of the need to be individually responsible in order to improve our local and global environment.  They will learn how to disseminate their ideas using media tools.









### SCIENTIFIC AND TECHNOLOGICAL LITERACY - SCIENCE TO IMPROVE THE ENVIRONMENT

Effect of the Activity on students and teachers	
	Scientific and Technological Literacy
Conclusions and recommendations	Students and teachers will be more committed to the local and global environment and more conscious of the negative effects of our individual actions.  We will be more prone to collaborating with local actions promoted by private or public organizations.
	Students have developed communicative skills.









### SCIENTIFIC AND TECHNOLOGICAL LITERACY - ICTS TO IMPROVE HEALTH AND PHYSICAL ACTIVITY

Title	Active health
Subject area	Scientific and technological literacy
Description of educational activity	Duration: sessions Students age: 15-16 Organization of the class of pupils: frontal, individual, in groups  The aim of the lesson: The objective of this lesson is to improve the health conditions of our school population through a set of activities that imply the acquisition of health awareness and the mindfulness of how closely related health and activity are.  Support materials: Internet Videos Handouts  Description of the activities TASK 1: Introduction to this topic by listening a video: Sports for health: Talking mental health Students will analyze the positive effects of sports in mental health. Brainstorming: They will propose other positive effects of exercising on physical health.  TASK 2: Introductory lecture (30 min) to health and diseases that can be improved by exercising: Obesity High blood pressure Cardiovascular diseases Diabetes Colon and breast cancer Mental disease: depression, anxiety, TOC, hyperactivity, etc.  TASK 3: In order to compare the variation of a set of factors linked to health, students will measure them before and after carrying out a medium-effort activity. They will measure the following variables:  Heartbeat rate Blood pressure Breathing rate Temperature Oxygen saturation level Weight All these measurements will be recorded in a table by our students to analyze them at school.  TASK 4: The data will be represented in tables and graphs. Students, working in groups of two people, should analyze them and make conclusions.









### SCIENTIFIC AND TECHNOLOGICAL LITERACY - ICTS TO IMPROVE HEALTH AND PHYSICAL ACTIVITY

Description of educational activity	TASK 5: Students will prepare an exercise area locator map. They will use a customized google map where they locate the different zones suitable for exercising in the surroundings. When the mouse approaches the area symbol a photo and the main characteristics of this area will appear. ITC applications:  1. Google maps  TASK 6: A healthy habits presentation will be prepared by our students to show the most important points that will help us to achieve and maintain a good state of health.
Connection to curriculum	From Biology, Physical Education and Technology curriculum:  SKILS  Learn to use reliable digital sources of information and classify the data obtained  Critical thinking about sources and information  Speaking fluency  Correct use of vocabulary  Creativity in the final products: ability for catching target audience.  Learn to use different digital tools  KNOWLEDGE  Be aware of the relationship between health and physical activity.  Analyze the different variables that can be modified through physical activity.  Identify the main physical and mental diseases that can improve with a healthy lifestyle and exercising on physical activity.  Search, select and interpret scientific information from the use of various sources.  Transmit selected information accurately using various media.  Use scientific information to form your own opinion and argue about problems related to health and exercise.  Use specific software to edit the information and create new materials in various formats  Collaboratively participate in various ICT tools. Respect for property rights.  COMPETENCES  1- Linguistics  Convey information properly to present information, results, and conclusion.  Express the need to have healthy habits to maintain a good state of health.  2- Mathematics  Analyze tables and graphs that show a set of health variables that can
	<ul> <li>be measured easily in high school.</li> <li>Calculate percentages, create graphs, and analyze data.</li> <li>3 Social</li> <li>Develop awareness of appropriate habits in order to maintain a good state of mental and physical health.</li> <li>Know and value the acquisition of behaviors and healthy habits.</li> </ul>









### SCIENTIFIC AND TECHNOLOGICAL LITERACY - ICTS TO IMPROVE HEALTH AND PHYSICAL ACTIVITY

Connection to curriculum	<ul> <li>Be conscious of the diverse types of illnesses that can develop due to sedentariness.</li> <li>Be able to promote a healthy lifestyle among their relatives and acquaintances.</li> <li>4 Digital <ul> <li>Search for information using available sources and organize data to answer the questions posed.</li> <li>Use ICT to prepare written reports, tables and graphs (Word, Excel, etc), or make a presentation in a program</li> <li>designed for it (Office Presentation) and design maps (Google Maps).</li> <li>Manage and process abundant and complex information in solving real problems, making decisions, and working in</li> <li>collaborative environments.</li> </ul> </li></ul>	
Short description of digital sources	<ul> <li>Video: Sports for health: Talking mental health: https://youtu.be/TrjEU97AeQ0</li> <li>Exercise areas locator map: HEALTHY HABBITS: OUTDOOR AND INDOOR SPORT FACILITIES AROUND THE SCHOOL</li> <li>https://www.google.com/maps/d/u/0/edit? mid=1FMEEXCaowekhSbxSDrTastSvSZFwCpw&amp;amp;usp=sharing</li> <li>https://www.google.com/maps/d/u/0/edit? mid=1tpWVscipeWBCb79gwE2Y2LevVRoycPl&amp;amp;usp</li> </ul>	
The expected Outcomes of the Integrated Lesson 2 –Active health		
Results/ What we learned / Outcomes	Scientific and Technological Literacy  By the end of the lessons students will learn and appreciate the health-exercise intimate linkage and will be able to transmit and promote a healthy lifestyle encouraging physical activity.	
Effect of the Activity on students and teachers		
Conclusions and recommendations	Scientific and Technological Literacy  Students and teachers will develop a more responsible awareness of the effect exercise has on physical and mental health.	









# Module 3 Worksheets



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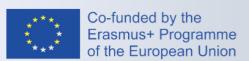






# INTEGRATED CURRICULUM - LESSON PLANS

# MODULE 4 - MATHEMATICAL LITERACY









## MATHEMATICAL LITERACY - PERCENTAGE

Title	Percentage (Math and healthy lifestyle)
Subject area	Mathematical Literacy
Description of educational activity	Students age: 14 - 19 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson:  Students will analyze statistical data (charts, graphs and diagrams)  Students will understand the application of statistics in everyday life  Students will understand how various apps work on mathematical principles  Students will create infographics presenting their findings and results  Support materials:  Handouts (worksheets)  PowerPoint presentations  Charts and diagrams  Video materials  Evaluation and assessment:  Quizzes (digitally created)  Self-assessment (using rubrics)  Evaluation surveys (Google Forms)  Peer assessment (using rubrics)  Presentations (student-created)  Effect of the activity on students and teachers:  Better engagement  Higher motivation  Understanding the importance of the subject matter in everyday life  Description of the activities: First lesson - introduction to the concept of percentage and general overview with examples that show how they are used in everyday life (PowerPoint presentation)  Healthy diet - a personal diet - the importance of knowing the appropriate distribution of nutrients within a single meal (in percentages)  Second lesson - Students prepare an introduction to statistical analysis (basic information and key terms) - a presentation (a research task)  Discussion - the relationship of statistics and sports (focus on football)  Students are divided into groups (each group is assigned with one question concerning statistics and football; they discuss it in pairs and then they share their conclusions)  Age in football - student do basic calculations to get themselves familiar with the procedures and terms  Teacher explains the main terms and the main procedures  Students do statistical analysis of a football club in a half-season









## MATHEMATICAL LITERACY - PERCENTAGE

They are presented with charts, bars and diagrams containing the most important data (age of the players, how successful they have been when it comes to wins/losses, scored and conceded goals, penalties, etc.)

Students work in groups (each group with a different set of data)

Final discussion - THINK - PAIR - SHARE - the importance of statistical analysis in sports (both amateur and professional)

- Modern apps and a healthy lifestyle students' presentation on the benefits of walking and having an active lifestyle + an overview of different pedometers used to count steps (included some other functions, depending on the type of pedometer)
- Students take part in a survey (Mentimeter, Google forms, etc.) concerning their habits when it comes to using step counter apps - once they have the results, they conduct a class discussion and reach a conclusion
- Measuring heart rate (using a device and using your fingers compare how effective and accurate each approach is)
- On the move students work in two groups; first group: students do a series of exercises to compare the number of steps before and after, to compare the heart rate before and after the exercise; the difference should be presented using percentage and the results should be presented as infographics;
- second group: penalty shootout one students shoots penalties, the other
  is the goalkeeper and they take turns; other students take notes and
  again, analyze the data; all the results are presented in percentages
  (infographics)
- Math and football "mens sana in corpore sano" A sound mind in a sound body - Football pitch statistics (PowerPoint presentation introduction of key terms and the most important information)
- Students start with a few simple tasks (calculating the area, mean values examples of famous Croatian footballers, calculating a distance)
- Football formations in groups, students prepare presentations on famous football coaches focusing on the football formations they implemented class discussion which one is the most successful / effective one?
- A coach for a day students work in two groups; they are presented with the data after 14 matches playing in one formation and after 12 matches playing in another formation. Students are supposed to calculate how effective each formation was, compare the results of each group and the results should be presented in percentage. Students create a poster (infographics).
- The teacher conducts a class discussion (Should the coach always stick to the same formation? Why/ why not? The importance of statistics in Kinesiology?)

Description of educational activity

Connection to curriculum

Grade: 1-4

**Cross-curricular connection**: Computer science, Foreign language, Croatian, Physical Education, Biology

**Skills and competencies**: digital skills, mathematical skills, social skills, linguistic skills









## MATHEMATICAL LITERACY - PERCENTAGE

Bibliographic reference to be used during the activity	<ul> <li>Pletikosić, Barišin, Jukić Matić, Gortan, Vujasin Ilić, Dijanić: Matematika 1</li> <li>Dakić, Elezović: Matematika 3</li> <li>MATEMATIKA I SPORT, Mario Erak, Matka 21 (2012./2013.) br. 81</li> <li>Zdenko Kosinac: Hodanje i trčanje kao terapija i pozitivni atribut zdravlja Život i škola, br. 27 (1/2012.), god. 58., str. 153. –166. (https://hrcak.srce.hr/file/125433 )</li> <li>Matematika i nogomet, Miriam Brücker, 2016.</li> </ul>		
Short description of digital sources	YouTube videos (examples of statistical analysis) https://ematematika.hr/hr/matematika/bpid/27		
The expected Outcon	The expected Outcomes of the Integrated Lesson 1 - Percentage (Math and healthy lifestyle)		
Results/ What we learned / Outcomes	Mathematical Literacy  Students will be able to approach any form of statistical data in a critical manner (knowing how to interpret the data and how to use it in their everyday life).  Students will use the knowledge they acquire to understand the importance of physical activities and how food supplements should be used wisely.		
Effect of the Activity on students and teachers			
Conclusions and recommendations	Mathematical Literacy  The students will develop a higher motivation for learning and they will be better engaged in the learning process. Teachers will understand how implementing real-life examples and situations in their teaching helps with improving students' motivation and engagement.		









# MATHEMATICAL LITERACY - FUNCTIONS IN REAL LIFE

Title	Functions in real life
Subject area	Mathematical Literacy
Description of educational activity	Title: Demographics and shaping the future Duration: 3.5 hours Students' age: 14-17 Organization of the class of pupils: frontal, group work, individual presentation  The aim of the lesson: Investigate the demographic issues of Europe and countries involved in this Erasmus project. The main focus was to calculate and graphically present population and age structure projections, and to connect those results with pupils personal choices considering future college and occupation.  Evaluation and assessment method: Evaluation at the end of activity by students making presentations about the outcomes of the activity. Also, the students complete an evaluation form at the end of the activity.  Support materials: internet, ICT, Excel tables, handouts, Mentimeter, Canva, Padlet  Description of the activity:  Students listen to the introduction to the activity.  Students use the link to find the population number of their own country and fill in the needed data in an Excel table.  Using the population projection formula, students calculate future population predictions. Using the mentioned numbers, they create a linear graph in Excel and recognize the function.  Students work with Excel tables that show the age structure numbers for their own country. For the future predictions of numbers considering age structure, students use GeoGebra as a tool that allows them to present results with different functions. By analyzing the graph, students read the number projections of age structure.  Relying on the above mentioned activities and results, students create presentations that focus on their future choices about college/occupation that are made according to demographic results.
Connection to curriculum	Skills and competences: digital skills, analyzing skills  Use of reliable demographic statistical data  Creating Excel tables  Creating graphs in Excel using data  Visualization of data  Team work  Recognize the mathematical function  Connect demographic data with real life personal choices  Work in GeoGebra  Make population predictions  Creating argumentation from the data









# MATHEMATICAL LITERACY - FUNCTIONS IN REAL LIFE

Short description of digital sources

- https://ourworldindata.org/age-structure (internet source for demographic and economy data)
- https://www.mentimeter.com/ (digital tool for interactive classroom)
- https://hr.padlet.com/ (digital tool for interactive classroom)
- https://www.canva.com (digital tool for making posters and presentations)
- https://www.geogebra.org (digital tool for graph making and geometry)

The expected Outcomes of the Integrated Lesson 2 – Functions in real life

#### **Mathematical Literacy**

Results/ What we learned / Outcomes

With the activity "Demographics and shaping the future" we wanted to show students that demographic data is not an isolated area with no connections to our personal lives. By using the data and using mathematics to predict the future numbers based on ongoing trends, students are supposed to make their own personal future decisions based on their calculations. By doing so, students realize that by using the scientific method, they can make reliable predictions about what the future will look like, and according to that, make personal choices that are most adequate for the future realities. The outcomes of the activity: use of scientific method, data collection, data analysis, data visualisation, create argumentation based on data.

Effect of the Activity on students and teachers

#### **Mathematical Literacy**

Conclusions and recommendations

The conclusion is that this type of activity, where the subjects involved (mathematics and demography) are put in context of real life and especially students' personal life, lead to the best learning outcomes. The same conclusion refers to the teachers as well. There is a surplus of a teacher's motivation when the subject involved has a direct impact on students' introspection. The recommendation is that we should all try to continue finding ways of achieving that.









Title	Percentage (Math and healthy lifestyle)
Subject area	Media Literacy
Description of educational activity	Duration: 14 days Student age: 15 – 18 Organization of the class of pupils: individual, pair work, group work  The aim of the lesson: use percentages in everyday life - becoming aware of healthy eating habits  Support materials: - Internet sites - Video clips  Evaluation and assessment method: Self evaluation of personal calorie intake in percentage  Description of the activities: 1. Part of the lesson - Questionnaire about eating habits/favorite food/beverages (e.g. healthy food, junk food, unhealthy habits, age/gender/ physical activity etc.) - Presentation of top five results  - 2. part of the Lesson – Research - Find the official table of nutritional values (e.g FDA, National Institute of Health, WHO) by using the official websites. E.g. https://www.euro.who.int/_data/assets/pdf_file/0005/355973/ENP_eng.pdf - Analyze calorie values of the top five dishes/meals/beverages from the questionnaire Compare with the table of daily intake of calories according to your age Use the following formula:
	percentage of daily calorie intake in a meal = $\frac{average\ calorie\ intake\ in\ a\ week}{total\ daily\ calorie\ intake} \times 100$
	<ul> <li>3. part of the Lesson – Personal research</li> <li>Students take personal Diary of 7-day daily intake of food and drinks</li> <li>Calculate the calorie value for each day using the previously mentioned website</li> <li>Calculate the average daily calorie intake by using the formula:</li> </ul>
	average calorie intake in a week = $\frac{sum \ of \ calories \ of \ 7 \ day \ intakes}{7 \ (days)}$
	Present personal daily intake of calorie values in percentage:
	$percentage\ of\ daily\ calorie\ intake\ in\ a\ meal = \frac{average\ calorie\ intake\ in\ a\ week}{total\ daily\ calorie\ intake} \times 100$









#### · 4. part of the Lesson – Media presentation

- Students will create the social media profiles/page with suggested daily menu in accordance with the healthy eating daily habits.
- The profiles will contain videos with ingredients, preparation process, percentages of the meal compared to the recommended daily intake. (Use the following formula to calculate daily intake:

Description of educational activity

percentage of daily calorie intake in a meal =  $\frac{average\ calorie\ intake\ in\ a\ week}{total\ daily\ calorie\ intake} \times 100$ 

#### **Additional activities and Considerations:**

Feedback and Discussion: Incorporate class discussions or group reflections at various points in the lesson plan to encourage students to share their findings and insights.

Accessibility: Be mindful of students who may have dietary restrictions or health conditions that affect their dietary choices.

Ensure that the lesson plan accommodates diverse needs.

Ethical Considerations: Encourage responsible use of social media and respect for privacy when sharing personal data.

Grade: Secondary, 2. - 4.

Curriculum: Mathematical Literacy; Media Literacy

#### Knowledge:

- Mathematical Knowledge: Students will gain a solid understanding of percentages, including how to calculate percentages, interpret data related to percentages, and apply percentage calculations in real-life situations.
- Nutritional Knowledge: Through research and analysis of calorie values and nutritional data, students will acquire knowledge about the nutritional content of common foods and beverages, including their calorie values, macronutrients, and micronutrients.
- Health and Wellness Knowledge: Students will become more knowledgeable about the concept of healthy eating habits, the importance of balanced nutrition, and the relationship between diet and overall health
- Data Analysis Skills: They will learn how to collect, organize, and analyze data related to their personal eating habits, enabling them to draw meaningful conclusions from their observations.

#### Skills:

- Math Skills: Students will develop strong mathematical skills, particularly in the area of percentages, which are applicable in various real-life situations such as budgeting, finance, and data interpretation.
- Research Skills: Through activities like finding nutritional values and conducting personal research, students will enhance their research skills, including online research, data collection, and data analysis.
- Critical Thinking: They will develop critical thinking skills by evaluating their own eating habits, comparing them to recommended guidelines, and making informed decisions about their diet.

Connection to curriculum









Connection to curriculum	<ul> <li>Data Interpretation: Students will learn how to interpret data related to calorie intake and use this information to make adjustments to their diet and lifestyle.</li> <li>Presentation Skills: The media presentation activity will help students develop skills in creating and presenting information effectively, including creating social media content, making videos, and explaining complex concepts in a clear and engaging manner.</li> <li>Digital Literacy: Through online research and social media creation, students will improve their digital literacy skills, including online navigation, website use, and content creation.</li> <li>Competences: <ul> <li>Health Literacy: Students will develop competence in understanding and applying principles of health literacy, which includes making informed choices about their diet and lifestyle.</li> <li>Mathematical Competence: They will acquire competence in mathematical skills, particularly in the context of percentages, which is a fundamental math skill applicable in various life situations.</li> <li>Data Literacy: By collecting and analyzing data, students will enhance their data literacy, enabling them to make data-</li> <li>informed decisions in their daily lives.</li> <li>Media Literacy: Through creating social media content, students will develop media literacy skills, including the ability to critically evaluate and create media messages.</li> <li>Lifelong Learning: Students will gain the competence of lifelong learning by understanding the importance of continuously monitoring and adapting their eating habits to maintain a healthy lifestyle.</li> <li>Problem-Solving: The lesson plan encourages problem-solving competence by challenging students to identify and address dietary issues and make practical changes to improve their health.</li> </ul> </li> </ul>
Short description of digital sources	Google Docs forms https://www.euro.who.int/data/assets/pdf_file/0005/355973/ENP_eng.pdf https://www.webmd.com/diet/healthtool-food-calorie-counter
Expected Outcomes of the Integrated Lesson 1 - Percentage (Math and healthy lifestyle)	

#### **Media Literacy**

In the context of media literacy, lesson plan on percentages, math, and healthy lifestyle can yield several valuable results,

lessons, and outcomes for students. Here are the key takeaways in terms of media literacy:

1. Critical Evaluation of Information: Students will learn to critically evaluate information from various sources, particularly from the internet sites and video clips provided in the lesson plan. They will

develop the ability to assess the reliability, credibility, and accuracy of online resources, which is a crucial aspect of

media literacy.

Results/ What we learned / Outcomes









Expected Outcomes of the Integrated Lesson 1 - Percentage (Math and healthy lifestyle)

- 2. Creation and Sharing of Media Content: Through the media presentation activity, students will gain practical experience in creating and sharing media content. They will learn how to produce videos, write captions, and use social media platforms to convey information effectively. This hands-on experience is essential for building media literacy skills.
- 3. Awareness of Media Influence: Students will become more aware of how media, including social media, can influence peoples perceptions and behaviors, especially in the context of healthy lifestyle choices. They will learn to discern between reliable health-related information and potentially misleading or biased content.
- 4. Ethical Media Use: By creating social media profiles/pages with suggested daily menus, students will learn about responsible and ethical media use. They will understand the importance of providing accurate information to the public and respecting privacy when sharing personal data.
- 5. Media as an Educational Tool: Students will recognize the educational potential of media, especially when it comes to disseminating information about healthy eating habits. They will understand how media can be a powerful tool for raising awareness and promoting positive behavior change.
- Results/ What we learned / Outcomes
- 6. Communication Skills: Through the media presentation activity, students will enhance their communication skills, including the ability to convey complex ideas clearly and concisely in a multimedia format. This skill is essential in the digital age, where effective communication is key.
- 7. Engagement with Diverse Media: Students will engage with various forms of media, including websites, video clips, and social media platforms. This exposure will broaden their media literacy by familiarizing them with different media formats and their unique characteristics.
- 8. Reflective Thinking: As students create media content about healthy eating habits, they will engage in reflective thinking. They will consider how media can influence peoples perceptions of what constitutes a healthy diet and how they can contribute to more accurate and beneficial messaging.
- 9. Empowerment: Media literacy empowers students to be discerning consumers and creators of media content. They will learn that they have the agency to make informed choices about the information they consume and the content they produce.
- 10. Lifelong Media Literacy Skills: Ultimately, this lesson plan aims to instill lifelong media literacy skills. Students will carry the ability to critically assess media content and responsibly use media as a means of communication into their future endeavors, whether in education, career, or personal life.









Effect of the Activity on students and teachers

#### **Media Literacy**

Overall, this lesson plan not only imparts mathematical and nutritional knowledge but also equips students teachers with essential life skills and competences related to critical thinking, data analysis, and healthy decision-making, which are highly valuable for their personal development and future endeavors.

In summary, this lesson plan not only teaches students about percentages and healthy lifestyle choices but also equips them with essential media literacy skills that are increasingly important in our digital age. It empowers them to navigate, evaluate, and contribute to media content effectively and responsibly.

#### **Effects and Impacts on Teachers:**

- Increased Content Knowledge: Teachers who implement this lesson plan
  may deepen their understanding of mathematical concepts related to
  percentages and nutritional knowledge. This can enhance their subject
  matter expertise.
- Pedagogical Skills: They can develop new pedagogical skills related to incorporating real-world applications into their teaching, fostering critical thinking, and engaging students in hands-on activities.
- Media Literacy Skills: Teachers can improve their own media literacy skills by guiding students through the process of creating and evaluating media content. This can benefit their ability to find and use educational resources effectively.
- Reflective Practice: Teachers may become more reflective in their teaching as they assess the effectiveness of this lesson plan and consider how it can be adapted to meet the needs of different student populations.

#### Conclusions:

- Integration of Subjects: The lesson plan successfully integrates mathematics and health education, demonstrating the potential for interdisciplinary teaching to enhance students understanding of both subjects.
- Real-World Relevance: The lesson plan effectively connects mathematical concepts to real-life situations, emphasizing the practical application of percentages in daily life, specifically in making healthy lifestyle choices.
- Media Literacy Enhancement: The lesson plan enhances media literacy skills, emphasizing the importance of critical thinking and ethical media use in an age of information abundance.

#### **Recommendations:**

- Professional Development: Encourage teachers to participate in professional development workshops or courses related to interdisciplinary teaching and media literacy. This can further enhance their skills in delivering such lessons effectively.
- Adaptability: Encourage teachers to adapt and modify the lesson plan to suit the specific needs and interests of their students. Flexibility in lesson design allows for customization to different grade levels and learning styles.

Conclusions and recommendations









Effect of the Activity on students and teachers

Conclusions and

recommendations

- Collaboration: Promote collaboration among teachers within and across subject areas. Encourage educators to share their experiences with similar interdisciplinary approaches, fostering a culture of collaboration and innovation.
- Assessment and Feedback: Encourage teachers to collect feedback from students about their experiences with the lesson plan. This feedback can inform improvements and adjustments for future implementations.
- Sustainability: Consider ways to sustain the integration of media literacy and interdisciplinary teaching into the curriculum. This may involve incorporating similar approaches into other subjects or grade levels.
- Resource Sharing: Establish a platform or community where teachers can share additional resources related to media literacy, healthy lifestyle education, and interdisciplinary teaching.
- In conclusion, the lesson plan not only benefits students but also has the
  potential to enhance teachers content knowledge, pedagogical skills, and
  media literacy capabilities. By recognizing these impacts and providing
  support and resources, schools and educational institutions can foster a
  culture of innovative and effective teaching practices.









Title	Functions in real life
Subject area	Media Literacy
Description of educational activity	Duration: 10 hours (600 minutes) Student age: 15 – 18 Organization of the class of pupils: frontal, individual, pair work, group work  The aim of the lesson: this lesson plan combines mathematics, media literacy, creativity, and teamwork to engage students in meaningful learning experiences. It aims to make trigonometry more accessible and relevant while developing a range of skills that are valuable in the digital age.  Support materials:  - Internet  - Video clips  - Art  Handouts:  - Presentations  - Photos  - YouTube clips  Evaluation and assessment method: Statistics collected from the number of viewing/sharings/comments/likes from media channels/social networks  Description of the activities:  1. The first part of the lesson — watching the musical video: The primary aim of this lesson plan is to demonstrate the practical application of trigonometric functions in everyday life. By watching a musical video and exploring the legend of Pulling of Mrduja students will identify instances where mathematics and trigonometry can be applied to real-world scenarios.  - Before watching the video, the students are given the task to notice where they can apply mathematics.  - Watching musical video of sailing boat by David Gray - Sail Away (https://www.youtube.com/watch?v=rkB5bM_54sc)  Predicted students' answers are:  1. dimensions of the sails  2. acute angle between most and the little sail (recognizing the rectangular triangle)  3. acute angle between mast and the little sail (recognizing the rectangular triangle)  4. boat dimensions  5. waves height (by using trigonometric functions)  6. part of the day (using position of the sun relative to the horizon)  7. range of seagull wings  The initial activity involving the musical video "Sail Away" by David Gray encourages students to actively observe and identify mathematical concepts within the video. This can help students recognize the relevance of trigonometry in the context of sailboat dimensions, angles, and other factors
	related to navigation and the sea.









#### 2. The second part of the lesson – legend of "Pulling of Mrduja"

- Teacher gives the task to the students to investigate and collect as much information as possible about the popular story related to the legend of "Pulling of Mrduja". Students can use internet, applications, social networks
- o Best of Brač destination management agency: https://bestofbrac.com/brac-event/pulling-of-mrduja-2/
- The official site of the Tourist Board Split-Dalmatia County:

https://www.dalmatia.hr/discover/pulling-of-mrduja

- · Students are presenting the legend of "Pulling of Mrduja" by using some of the following possible links and internet sites:
- Best of Brač destination management agency: https://bestofbrac.com/brac-event/pulling-of-mrduja-2/
- The official site of the Tourist Board Split-Dalmatia County: https://www.dalmatia.hr/discover/pulling-of-mrduja
- Video from the offshore: https://www.youtube.com/watch?v=c3YKOUIf4xA
- Video from the air: https://web.facebook.com/watch/?v=777752009441460
- Narrative story about the legend.
- · After the students' feedback, the teacher announces the topic of trigonometric functions in everyday life.
- · Teacher revises trigonometric functions (20 minutes) using handouts of trigonometric functions of triangle.
- Now that the students are introduced to useful resources, they start with the following exercises:

#### Task 1. Pair work

- · While watching the videos observe and name the positions and situations where you recognize the possibility of applying trigonometric functions.
- Teacher writes down students' ideas on the whiteboard and makes a good choice od main terms that will be used in following exercises.

#### Expected answers are:

- 1. dimensions of the sails
- 2. acute angle between bow of the ship and mast (recognizing the rectangular triangle)
- 3. acute angle between mast and the little sail (recognizing the rectangular
- 4. boat dimensions
- 5. observers' distance from the shore....

The teacher makes notes on the board of students' answers if they fit the list and adds the ones not mentioned.

#### Task 2. Group work

Students are divided in five groups (4-6) with one topic/task assigned to each

Exercise 1: Calculate the area of the sail if the angle and the height of mast is meters (Look at Picture 1).

Exercise 2: Using Picture 2 – geographical map of the islands of Brač and Šolta, calculate the distance between the most remote points of the islands. Exercise 3: Using Picture 3 – geographical map of the islands of Brač and Šolta, calculate the distance between the farthest point of Brač and central point of Mrduja.

Description of educational activity









**Exercise 4**: Sail boat sailed from Mrduja and after 6.3 km of sailing changed the direction for 142° clockwise. It sailed in that direction for 20 minutes and then again changed his direction for 82° clockwise to sail back to Mrduja. How far is the sail boat from Mrduja at that moment?

**Exercise 5**: Calculate how many meters of rope is approximately needed to encompass the Mrduja

Hint: Calculate the circumference of Mrduja if you know that the radius of the island is 0,08 km. (Look at Picture 4).

The teacher gives them handouts with 5 and trigonometric functions that students will use while solving the exercises.

### 3. Third part of the lesson – making the model of the Regatta and promotional video in each group

The teacher gives to the students' instructions about the process of making the model sail boats and islands (suggested video is https://www.youtube.com/watch?v=NcieP3uy4Dc or any other by your

Students are presenting their results and chose the best one for future promotion touristic video.

- 1. Each group makes separate film about competition for winning the Mrduja and the best video wins the prize
- 2. The students post the wining video on different social media or publish it on YouTube channels.
- 3. Offer your wining promotional video to public touristic agencies.

#### Instructions for making the promotional video:

1. make your sail boats for regatta

personal choice).

- 2. connect each boat with a thread
- 3. use shallow-bottom plastic container and fill it with the water
- 4. make the islands by using bigger stones
- 5. immerse the islands and sail boats into the water
- 6. encompass the model of the island of Mrduja with a pulling thread
- 7. each student chose his sail for pulling the Mrduja
- 8. prepare camera for filming
- 9. add music and sound effects
- 10. vote the best according to the following criteria

#### Criteria for choosing the best video:

- 1. Is the video attractive? Why/why not?
- 2. Do the models add to the message of the video? Why/why not?
- 3. Do the music and sound effects add to the message? Why/why not?

Students participating in this lesson plan on " Functions in real life " will acquire a diverse set of knowledge, skills, and competences that span various domains.

Connection to curriculum

Description of

educational activity

#### Knowledge:

Mathematical Knowledge: Students will deepen their understanding of trigonometric functions, including sine, cosine, and tangent, and how these functions can be applied to real-world scenarios.

Real-world Applications: They will acquire knowledge of how mathematical concepts, particularly trigonometry, can be applied to solve practical problems related to navigation, measurements, and modeling.









Media Literacy: Students will develop knowledge about media literacy, including how to critically analyze media content, create engaging media, and use online platforms responsibly.

Local History and Culture: Through the exploration of the legend of Pulling of Mrduja students will gain knowledge about local history and culture, expanding their horizons beyond mathematics.

#### Skills:

Mathematical Skills: Students will enhance their mathematical skills in trigonometry, geometry, and problem-solving. They will learn to apply trigonometric functions to solve real-life problems.

Research and Information Literacy: Engaging in research to investigate the legend of Pulling of Mrduja will develop students research and information literacy skills, including how to gather, evaluate, and present information effectively.

Media Production Skills: Through the creation of promotional videos, students will develop media production skills, including video recording, editing, and presentation. They will also learn how to add music and sound effects. Presentation Skills: Students will improve their ability to present information to an audience, both orally and visually, as they share their findings about the legend and present their promotional videos.

Critical Thinking: Analyzing media content, evaluating research sources, and solving mathematical problems will enhance students critical thinking skills. Creativity: The model-making and video production activities encourage creativity as students design sailboats, islands, and promotional videos.

Connection to curriculum

#### Competences:

Mathematical Competence: Students will develop competence in trigonometry, enabling them to apply mathematical principles to solve real-world problems.

Media Literacy Competence: They will gain competence in analyzing media content, creating media, and using online platforms responsibly. This competence is crucial in the digital age.

Research Competence: Engaging in research activities will foster competence in gathering, evaluating, and presenting information effectively, which is valuable across disciplines.

Digital Competence: Students will improve their digital competence by using technology for research, video production, and online sharing of content. Creativity and Innovation Competence: The model-making and video production tasks encourage creative thinking and innovation as students design and present their ideas.

Communication and Collaboration Competence: Working in groups and presenting their findings and videos will enhance students ability to communicate and collaborate effectively.

Cultural Awareness: Exploring the local legend adds to students cultural awareness and appreciation of their region's history and traditions.

In summary, this lesson plan not only imparts mathematical knowledge and skills but also nurtures media literacy, research, creativity, and various competences that are highly valuable in both academic and real-life contexts. It provides students with a well-rounded learning experience that bridges mathematics with practical, real-world applications and media literacy.









Short description of digital sources

- https://www.youtube.com/watch?v=rkB5bM\_54sc
- https://hr.wikipedia.org/wiki/Mrdujska\_regata
   https://bestofbrac.com/brac-event/pulling-of-mrduja-2/
- · https://www.dalmatia.hr/discover/pulling-of-mrduja
- https://www.youtube.com/watch?v=c3YKOUIf4xA
- https://web.facebook.com/watch/?v=777752009441460

The expected Outcomes of the Integrated Lesson 2 – Functions in real life

#### **Media Literacy**

In the context of media literacy, this lesson plan titled Functions in real life offers several valuable results, lessons, and outcomes for students. The key takeaways in terms of media literacy are:

- Critical Media Consumption: Students learn to critically analyze media content by examining the musical video and other online resources. They gain the ability to identify mathematical concepts and real-world applications within media, fostering a habit of critical thinking when consuming media.
- Media Production Skills: The lesson plan provides students with hands-on experience in creating media content, including promotional videos. They learn how to use technology, record videos, edit content, and add music and sound effects. These skills are transferable and applicable in various digital media contexts.
- Ethical Media Use: Through the creation and sharing of media content, students learn about responsible and ethical media use. They understand the importance of providing accurate information, respecting copyrights, and considering the impact of their media creations on audiences.
- Audience Engagement: By sharing their promotional videos on social media and online platforms, students gain insight into audience engagement. They can track statistics like views, comments, likes, and shares, which helps them understand how audiences interact with digital content
- Media Literacy Competence: The lesson plan contributes to the development of media literacy competence, as students become more proficient in analyzing, creating, and evaluating media messages. They gain the skills needed to navigate the digital media landscape effectively.
- Creative Storytelling: Students learn the art of creative storytelling through the creation of promotional videos. They understand how to use visuals, narratives, and sound to convey messages effectively, which is a fundamental aspect of media literacy.
- Media's Role in Promoting Local Culture: Exploring the legend of Pulling of Mrduja and presenting it through media showcases the role of media in preserving and promoting local culture and history. Students learn that media can be a powerful tool for cultural preservation and sharing.
- Digital Citizenship: Students practice responsible digital citizenship by posting their videos on social media and online platforms. They consider the ethical implications of their content and interactions with online communities.

Results/ What we learned / Outcomes









The expected Outcomes of the Integrated Lesson 2 – Functions in real life

- Problem-Solving and Decision-Making: Through the process of creating promotional videos, students encounter challenges and make decisions about content, presentation, and audience engagement. This fosters problem-solving and decision-making skills in a digital media context.
- Peer Review and Feedback: Students engage in peer review and feedback processes during the evaluation of promotional videos. This reinforces the importance of constructive criticism and collaboration in media production.
- Media Impact and Influence: As students create and share media content, they gain insights into the potential impact and influence of media messages on audiences. They become more discerning consumers and creators of media.
- Digital Empowerment: Through the creation and sharing of media, students experience the empowerment that comes with using digital tools and platforms to communicate ideas and stories. They realize their ability to amplify their voices and messages in the digital realm.
- In summary, this lesson plan not only enhances students mathematical knowledge and skills but also equips them with essential media literacy skills and competences. It fosters a deeper understanding of the role of media in our lives, empowers students to use media responsibly and creatively, and encourages critical thinking in the digital age.

Effect of the Activity on students and teachers

#### **Media Literacy**

The implementation of this lesson plan titled Functions in real life has distinct effects and impacts on both students and teachers. Here's an analysis of these impacts along with some conclusions and recommendations:

#### **Impact on Students:**

- Increased Engagement: The lesson plan, with its real-world applications and hands-on media production activities, fosters high levels of student engagement. Students are more likely to be motivated and enthusiastic about learning trigonometry and media literacy in this interactive and creative context.
- Improved Mathematical Understanding: Students gain a deeper understanding of trigonometric functions by applying them to practical scenarios. They see the direct relevance of mathematics in solving real-life problems, which can lead to improved math comprehension and appreciation.
- Media Literacy Development: The lesson plan enhances students' media literacy skills. They learn to critically analyze media content, create their own media, and use digital tools responsibly. These skills are essential in the digital age and can benefit students in various aspects of their lives.

Results/ What we learned / Outcomes

Conclusions and recommendations









Effect of the Activity on students and teachers

- Problem-Solving Skills: Students develop problem-solving skills as they
  tackle mathematical challenges and make decisions about creating
  effective media content. These skills are transferable and valuable beyond
  the classroom.
- Creativity and Innovation: The model-making and video production activities stimulate students creativity and innovation.
- They learn how to convey complex ideas in creative ways, an important skill in both media and problem-solving.
- Collaboration and Communication: Group work and presentation activities promote collaboration and communication skills.
- Students work together to solve problems, present findings, and create media content, enhancing their ability to work in teams and convey ideas effectively.
- Cultural Awareness: Exploring the local legend adds a cultural dimension to the lesson. Students become more aware of and connected to their local history and culture, fostering a sense of pride and identity.

#### **Impact on Teachers:**

- Enhanced Pedagogical Skills: Teachers gain experience in delivering interdisciplinary lessons that integrate mathematics and media literacy.
   This can enhance their pedagogical skills and creativity in designing engaging lessons.
- Media Literacy Proficiency: Teachers become more proficient in teaching media literacy concepts and guiding students in media creation. They learn how to incorporate media literacy into their teaching repertoire.
- Innovative Teaching Practices: The lesson plan encourages teachers to adopt innovative teaching practices that combine traditional instruction with hands-on activities and technology. This can lead to more dynamic and effective teaching methods.
- Increased Awareness of Student Interests: Teachers gain insights into students interests and strengths through the creative aspects of the lesson. This awareness can inform future lesson planning and individualized instruction.

#### Conclusions:

- Engagement is Key: The lesson plans success lies in its ability to engage students through practical applications and creative media activities.
   Engaged students are more likely to grasp complex mathematical concepts and develop media literacy skills.
- Real-World Relevance: By connecting mathematics and media literacy to real-life scenarios and local culture, the lesson plan makes learning meaningful and relatable for students.
- Media Literacy Integration: The integration of media literacy into mathematics instruction is effective in developing students critical thinking and digital literacy skills.

#### Recommendations:

 Professional Development: Offer teachers professional development opportunities focused on interdisciplinary teaching, media literacy, and creative lesson planning. This can further enhance their skills in delivering such lessons effectively.











Effect of the Activity on students and teachers

- Resource Accessibility: Ensure that both teachers and students have access to the necessary materials and technology for media production, including cameras, editing software, and internet access.
- Feedback and Reflection: Encourage teachers to collect feedback from students about their experiences with the lesson plan.
- This feedback can inform improvements and adjustments for future implementations.
- Collaboration: Promote collaboration among teachers within and across subject areas. Encourage educators to share their experiences with similar interdisciplinary approaches, fostering a culture of collaboration and innovation
- Sustainability: Consider ways to sustain the integration of media literacy and interdisciplinary teaching into the curriculum. This may involve incorporating similar approaches into other subjects or grade levels.

In conclusion, this lesson plan effectively combines mathematics and media literacy to create a dynamic and engaging learning experience for students. It has the potential to not only improve students' mathematical understanding but also equip them with crucial media literacy skills. For teachers, it offers opportunities to enhance their teaching practices and innovate in the classroom.

Conclusions and recommendations







# FINANCIAL LITERACY - PERCENTAGE

Title	Percentage (Math and healthy lifestyle)
Subject area	Financial Literacy
Description of educational activity	2 hours (90 min) Students age: 15 - 16 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The aim of the lesson is to make pupils understand the term Inflation and its impact on our daily life and economy.  Support materials: Internet  Handouts: presentations_Genial.ly worksheets videos  Evaluation and assessment method: Pupils create a shopping basket for their household focusing on food commodities related to a healthy diet and they will calculate the inflation rate of those commodities.  Effect of the activity on students and teachers: STUDENTS: Pupils understand how inflation can influence our purchasing behavior TEACHERS: Teachers can apply the activities in their own subjects.  Description of the activities: 1. Brainstorming: How often do you go shopping? Do you mostly buy healthy food? Do you compare prices in time?  2. Loans – Questions for discussion: a) What happens when prices of goods rise in time? b) What do we call this phenomenon? c) Have you lately noticed any changes in prices?  1. Presentation by a teacher ( cca 90 min.) – students first watch a ECB video explaining inflation. A teacher using a Genial.ly presentation explains types of inflation, its impact on our daily life, the importance of price stability. At the end of the lesson the teacher can verify students' knowledge using a Kahoot game.  Posters – students make a table in which they will compare price of the food stuff they buy on the daily basis and thus they will compare price of the food stuff they buy on the daily basis and thus they will compare price of the food stuff they buy on the daily basis and thus they will compare price of the food stuff they buy on the daily basis and thus they will compare price of the food stuff they buy on the daily basis and thus they will create their shopping basket. Using the information they will calculate the inflation rate for the goods they normally buy. Final outcome









# FINANCIAL LITERACY - PERCENTAGE

Connection to curriculum

Grade: Secondary: 1.-2. Grade Curriculum: Financial Literacy

Knowledge: Pupils understand the term Inflation and its impact on our daily

Skills: They can find relevant information about prices of the food

commodities they regularly buy

Competence: Pupils can compare prices in time and calculate the inflation

rate.

Short description of digital sources

- https://www.ecb.europa.eu/ecb/educational/pricestab/html/index.en.html
   an online video explaining price stability
- https://www.economicshelp.org/blog/2656/inflation/different-types-of-inflation/ an online resource explaining types of inflation
- https://www.youtube.com/watch?v=3RDK69Htk4g a Youtube video explaining the issue of consumer price index
- https://www.ecb.europa.eu/ecb/educational/pricestab/shared/movie/EZB \_Booklet\_2011\_EN\_web.pdf? d2cdc628fdac27180f0be9322682b1fc - an online booklet on the importance of price stability
- https://create.kahoot.it/share/economic-indicators-inflation/839af5a2-4cb6-4779-888a-b69bedc6b4ce - An online game for revising the topic

The expected Outcomes of the Integrated Lesson 1 - Percentage (Math and healthy lifestyle)

#### Media Literacy

Conclusions and recommendations

Financial Literacy: At the end of the lesson pupils understand the term Inflation and its impact on our daily life and purchases they do.vThey can find relevant information about prices of the food commodities they regularly buy. Pupils can compare prices in time and calculate the inflation rate. Scientific and Technological Literacy

Scientific and recimological

**Mathematical Literacy** 

Effect of the Activity on students and teachers

#### **Media Literacy**

Conclusions and recommendations

Financial Literacy: Pupils are able to evaluate the inflation rate and its impact on their daily life. Teachers will be provided with new resources which they can implement in their lessons and they will be encouraged to educate themselves in up to date topics and information.

Scientific and Technological Literacy

**Mathematical Literacy** 









Title

# FINANCIAL LITERACY - FUNCTIONS IN REAL LIFE

Functions in real life

Subject area	Financial Literacy
	Duration: 2 hours (90 min) Students age: 15 - 16 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: The aim of the lesson is to make pupils understand interests charged by financial institutions when lending us some money. Within the lesson students will use a formula to count simple and compound interests. The main aim of the lesson is to make students aware of the fact that interest rate is not the only determinant showing the cost of a loan.  Support materials: - Internet  Handouts: - presentations_ Genial.ly - worksheets - videos  Evaluation and assessment method: Pupils create a table comparing interest rates and Annual percentage rate (APR) in different banks.
Description of educational activity	Effect of the activity on students and teachers: STUDENTS: Pupils understand how interest rates are charged by financial institutions when lending us some money. They are also aware of the fact that interest rate is not the only determinant showing the cost of a loan. TEACHERS: Teachers can apply the activities in their own subjects.  Description of the activities:  1. Brainstorming: What do people usually borrow money for? How do they make decisions? What information do they look for if they want to ask for a loan?  2. Loans – Questions for discussion: a) Can you remember what types of loans we have already been talking about? b) What is an interest rate c) What is APR? d) Which of them gives more relevant information about the cost of a loan?  1. Presentation by a teacher ( cca 90 min.) – students first learn some terms related to bank loans ( lender, borrower, saver, principal). Then they are introduced to the term interest rate and watch a video showing its importance. Later a teacher explains what a simple interest is and introduces a formula to calculate it. The next step is a compound interest and comparison of it to the simple one. Demand for money graph is explained. 2. Posters – students make a table comparing interest rates and APR of loans in different banks – final outcome









# FINANCIAL LITERACY - FUNCTIONS IN REAL LIFE

Connection to curriculum	Grade: Secondary: 12. Grade Curriculum: Financial Literacy  Knowledge: Pupils understand how interest rates are charged by financial institutions when lending us some money. They are also aware of the fact that interest rate is not the only determinant showing the cost of a loan.  Skills: They can find relevant information about bank loans  Competence: Pupils can decide according to interest rates and APRs whether a loan is favourable for them.
Short description of digital sources	<ul> <li>https://www.bankofengland.co.uk/knowledgebank/what-are-interest-rates - an online source explaining interest rates</li> <li>https://youtu.be/L-mT7o-OPkY - a Youtube video explaining why interest rates matter</li> <li>https://www.cuemath.com/commercial-math/simple-interest/ - a Internet source about simple interest rates</li> <li>https://youtu.be/INK95khKvSk - a Youtube video about compound interest rates https://youtu.be/jMoLkEcGHCo - a Youtube video explaining why compound interest work</li> <li>https://quizizz.com/admin/quiz/627b59179b31f6001eea0ad1/interest-rates - an online game for revision of the topic</li> </ul>
The expected Outcomes of the Integrated Lesson 2 – Functions in real life	

Results/ What we learned / Outcomes

**Financial Literacy**: At the end of the lesson pupils understand how interest rates are charged by financial institutions. They are also aware of the fact that the interest rate is not the only determinant showing the cost of a loan. They can find relevant information about bank loans. Pupils can decide according to interest rates and APRs whether a loan is favourable for them.

Effect of the Activity on students and teachers

Conclusions and recommendations

**Financial Literacy**: Pupils are able to evaluate the impact of borrowing money from a financial institution on their budget according to the interest rates and APR. Teachers will be provided with new resources which they can implement in their lessons and they will be encouraged to educate themselves in up to date topics and information.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY PERCENTAGE

Title	Percentage
Subject area	Scientific and Technological Literacy
Description of educational activity	Students age: 15 - 17 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: To contribute so that students know how they can have a healthier diet and consider the importance of percentages on it.  Support materials: Internet ICT Presentations Video materials  Handouts: Video — Canva (Scientific poster)  Description of the activities: TASK 1: Introduction to the lecture by showing the following video: https://www.youtube.com/watch?v=7MIE4G8ntss  TASK 2: Teacher from Biology give a lecture (30 min) to the class in order to introduce and explain the topics: Topics to start with: Diet: concept Food and nutrients types Healthy and balanced diet Nutrients WHO recommendations: what are my nutrients recommendations?  TASK 3: In Biology class, students gather their own data about: Their MBI Their daily energy needs according to age and lifestyle Their nutrients requirements. To do so, they consult these websites: https://nutritiondata.self.com/ https://www.sciencelearn.org.nz/images/568-macronutrient-percentages https://multimedia.efsa.europa.eu/drvs/index.htm  TASK 4: In Biology class, in teams of 3 or 4 they design a diet for: A) A diabetes teenager (14 years old, 48 kg, 165 centimeters) who wants to maintain weight b) An active teenager who wants to gain weight (15 years old, 54 kg, 175 centimeters).









# **SCIENTIFIC AND** TECHNOLOGICAL LITERACY -PERCENTAGE

Links to consult:

https://fdc.nal.usda.gov/

https://dtc.ucsf.edu/living-with-diabetes/diet-and-nutrition/understandingfood/

https://nutritiondata.self.com/

- TASK 5: In the ICT class, in groups of 3 or 4, students create percentages graphs with the data gathered on the previous sessions (TASK 3) (Microsoft Excel...).
- TASK 6: FINAL PRODUCT. In the ICT class students learn to create a video with the obtained results. Application or web pages to produce videos:
- o Windows Media Player
- o Powtoon
- o Filmora
- o Clipchamp

#### **Assessment**

- · Procedures:
- Rubric for each of both areas: Biology and ICT
- Observation of individual and team work
- Evaluation of the final product of each team
- · Criteria:
- Appropriate use of digital sources of information
- Use of scientific language
- Use the scientific method in the research
- Text and images quality
- Use of creating video tools
- Appropriate vocabulary
- Creativity

#### From Biology and ICT curricula:

- Learn to use reliable websites about data on nutrients and healthy lifestyle.
- Critical thinking about sources and information
- Speaking fluency
- Correct use of vocabulary
- Creativity in the final products: ability for catching target audience.
- Learn to use graph designer tools.

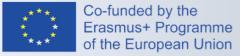
#### Connection to curriculum

Description of

educational activity

#### **KNOWLEDGE:**

- Calculate the suitable percentages of each nutrient in a balanced diet and recognize its principal foods.
- Create balanced diets using data about the different food groups and its caloric value.
- Interpret data about their energetic requirements depending on the
- Use equations and nomograms to calculate the basal caloric expenditure and for physical activity, body mass index and percentage of corporal fat.
- Valorate a balanced diet for a healthy life.
- Analyze the food components for a balanced diet.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY -PERCENTAGE

	FERCENTAGE
Connection to curriculum	- Know and explain how to acquire habits and conduct to promote and maintain health and prevent nutritional diseases.  - Communicate the selected information in a concise manner using different tools.  - Discuss the importance of a balanced diet in a healthy lifestyle.  COMPETENCES  1 Linguistics  - Express the need to maintain a balanced diet and expose the delicate balance that is established between food and the development of certain diseases.  - Describe the main concepts of the unit: components of a balanced diet, composition of food and its energy value, energy expenditure daily, etc.  2 Mathematics  - Interpret diagrams and apply formulas that allow calculating caloric expenditure baseline depending on the physical activity performed.  - Analyze and develop caloric tables of the necessary foods for a balanced diet and interpret graphs of daily energy expenditure according to the activity carried out.  - Apply problem-solving strategies and select techniques for calculating the appropriate percentages of nutrients in a balanced diet, recognizing the main foods that contain them and developing balanced diets.  3 Social  - Know and value the acquisition of behaviors and habits that favor the care and attention of the daily nutritional demands of the body.  4 Digital  - Use ICT to produce written reports in a word processor (Word, Pages, etc.), or make a presentation in a program designed for this (Powerpoint, Keynote, Prezzi, etc.), a video, a set of murals or explanatory panels, etc.; results can also be published of the conclusions in a blog or on a web page on the Internet. It is advisable to include in the reports photographs, graphs and videos made during the search for information.  - Develop image, audio and video content and develop capabilities to integrate them into various productions.  - Configure and use properly the main Internet browsers and elaborate and publish content on the web integrating textual, numerical, sound and graphic information
Bibliographic eference to be used during the activity	Jimenez, L. Lo que dice la ciencia sobre dietas, alimentacion y salud. Plataforma Editorial. ISBN: 9788416429554. 448 pages.
hort description of digital sources	Healthy and balanced diet:  https://nutritiondata.self.com/ https://www.nutrition.org.uk/healthy-sustainable-diets/healthy-and-sustainable-diets/a-healthy-balanced-diet/?level=Consumer  Nutrient requirements: https://fdc.nal.usda.gov/



Bil refere durir

Short



https://fdc.nal.usda.gov/fdc-app.html#/food-details/334194/nutrients https://www.sciencelearn.org.nz/images/568-macronutrient-percentages https://www.efsa.europa.eu/en/topics/topic/dietary-reference-values





# SCIENTIFIC AND TECHNOLOGICAL LITERACY PERCENTAGE

The expected Outcomes of the Integrated Lesson 1 - Percentage (Math and healthy lifestyle)

Scientific and Technological Literacy

Results/ What we learned / Outcomes

At the end of the lesson students will develop a more critical attitude against an unhealthy lifestyle based on a poor diet and a more critical attitude against "miracle diets" and fast food. They will learn how to disseminate their ideas using media tools as well.

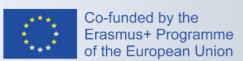
Effect of the Activity on students and teachers

Scientific and Technological Literacy

Conclusions and recommendations

Students are now aware that not all food is advisable for a healthy life. They are more committed about the necessity to compare the caloric intake according to their own lifestyle.

Teachers have learnt that working about percentages with diet is a very good, appealing and intuitive approach for learning.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY FUNCTIONS

Title	Functions
Subject area	Scientific and Technological Literacy
Description of educational activity	Students age: 15 - 17 Organization of the class of pupils: frontal, individual, group work  The aim of the lesson: To achieve that the students use mathematical functions to solve problems of real life such as reducing our impact on climate change.  Support materials: Internet ICT Video materials Presentations  Handouts: Canva (Scientific poster)  Description of activities TASK 1: Introduction to the lecture by showing the following video: https://www.youtube.com/watch?v=_uSlysiyurg TASK 2: Teacher from two different subjects, Mathematics and ICT, give a lecture (30 min) to the class in order to introduce and explain the topics: Topics to start with: What is a function? Types of functions Vensim Biology class, in groups of 3-4, students explores the following everyday situations shaped with mathematical functions: Vinding the height of a volcano, mountain, tree  Exponential and logarithmic functions. Vinding the time it takes for a bacteria culture to reach a count of 50000.  TASK 4: In ICT class, groups of 3-4 students are presented with a program (Microsoft Excel) and answer several questions about it. Candle: each hour a candle burns down the same amount. Bus: a group of people rent a bus for a day. The total cost of the bus is shared equally among the passengers. Car: my car loses about half of its value each year.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY FUNCTIONS

$\cdot$ TASK 6: In Biology class, the following concepts will be introduced (carbon	
dioxide emission, global warming, energy sourcesIn ICT, in groups of 3-4	
students using Vensim program they built a model about carbon dioxide	
emissions in which PIB, and use of renewable or non-renewable energy	
sources influence, simulate and test the model in different conditions.	

• TASK 7: FINAL PRODUCT: In ICT class, in groups of 3-4 students they create a scientific poster with Canva or another design program with the obtained results in TASK 5.

### Description of educational activity

#### **Assessment**

#### **Procedures:**

- Rubric for each of both areas: Biology and ICT
- Observation of individual and team work
- Evaluation of the final product of each team

#### Criteria:

- Appropriate use of digital sources of information
- Use of scientific language
- Use the scientific method in the research
- Text and images quality
- Use of creating graphs and simulation tools
- Appropriate vocabulary
- Creativity

#### From Biology and ICT curricula:

#### **SKILLS**

- Learn to use reliable websites about data on economical and energy
- Critical thinking about sources and information
- Speaking fluency
- Correct use of vocabulary
- Creativity in the final products: ability to represent results.
- Learn to use graph designer tools.
- Learn to use a simulator program

### Connection to curriculum

#### KNOWLEDGE:

- Identify the different types of energy revealed in everyday phenomena and in simple experiences carried out in the laboratory
- Know and compare the different energy sources used in daily life in a global context that involves economic and environmental aspects.
- Assess the importance of responsible consumption of energy sources.
- Identify the most important resources of the planet, explaining its types, possible uses and characteristics.

#### **COMPETENCES**

#### 1.- Linguistics

- Define accurately natural resources, energy, carbon footprint and other vocabulary related to energy.
- Explain in writing the use of energy resources in the current and future world.









# SCIENTIFIC AND TECHNOLOGICAL LITERACY FUNCTIONS

Connection to curriculum	2 Mathematics and scientific  -Obtain numerical data about renewable and non-renewable resources from graphs, tables and schemes.  -Identifies the different types of energy that are used in everyday situations by explaining the transformations from one form to another.  -Compares the main sources of energy for human consumption, based on the geographical distribution of their resources and environmental effects.  - Analyzes the predominance of conventional energy sources over alternatives, arguing the reasons why the latter are not yet developed.  -Compares data on the evolution of global energy consumption by proposing measures that can contribute to individual and collective savings.  3Social  -Valorate the importance of the social impact of the use of energy in the wellbeing index in the world.  -Discuss the use of renewable resources as a way of reducing environmental impact.  4 Digital  -Use ICT to produce written reports in a word processor (Word, Pages, etc.), or make a presentation in a program designed for this (Powerpoint, Keynote, Prezzi, etc.), scientific poster, a video, a set of murals or explanatory panels, etc.; results can also be published of the conclusions in a blog or on a web page on the Internet. It is advisable to include in the reports photographs, graphs and videos made during the search for information.  -Develop image, audio and video content and develop capabilities to integrate them into various productions.  - Configure and use properly the main Internet browsers and elaborate and publish content on the web integrating textual, numerical, sound and graphic information
Bibliographic reference to be used during the activity	Rachel L. Carson. Primavera silenciosa. Drakontos. ISBN: 9788416771172. 416 pages. 2016
Short description of digital sources	Gross domestic Product  https://data.worldbank.org/indicator/NY.GDP.MKTP.CDž  Use of energy in the world  https://ourworldindata.org/explorers/energy? facet=none&country=USA~GBR~CHN~OWID_WRL~IND~BRA~ZAF&Total+or+Breakdown=Select+a+source&Select+a+source=Fossil+fuels&Energy+or+Electricity=Electricity+only&Metric=Annual+generation  https://ourworldindata.org/energy#country-profiles  https://ourworldindata.org/energy-key-charts  https://ourworldindata.org/energy Vensim https://vensim.com/freedownload/









# SCIENTIFIC AND TECHNOLOGICAL LITERACY FUNCTIONS

The expected Outcomes of the Integrated Lesson 2 – Functions in real life

Results/ What we learned / Outcomes

#### Scientific and Technological Literacy

At the end of the lesson students will develop a more precise view of daily phenomena. They will learn how to study and quantify the use of energy as a way of reducing carbon footprint.

Effect of the Activity on students and teachers

Conclusions and recommendations

#### Scientific and Technological Literacy

Students are now aware that mathematics can be used for understanding daily real life situations in different contexts.

They are more committed to the necessity to increase the use of renewable sources of energy to reduce pollution, environmental impacts and carbon footprint.

Teachers have learnt that working about mathematical functions in real life is a very good, appealing and intuitive approach for learning about daily common situations.









## Module 4 Worksheets



Klik HERE or scan QR code for downloading Module 4 worksheets!









## PILOT ACTIVITY REPORT









## PILOT ACTIVITY REPORT

The Erasmus+ Integrated Literacy in Action Project (ILA) incorporated a series of pilot activities aimed at testing and refining project outcomes in real educational settings. These pilot activities were crucial in assessing the practicality and effectiveness of the integrated literacy approach developed within the project.

The project conducted four rounds of pilot testing, each corresponding to the integrated literacy modules developed during the project. These pilot tests involved students and teachers from partner schools who actively participated in implementing the integrated lesson plans. The goals of these pilot activities were to:







- Evaluate the feasibility of integrating various subjects (Media, Finance, Science and Technology, and Mathematics Literacy) within a proposed lesson plan.
- Assess the impact of integrated lessons on students' learning outcomes, motivation, and engagement.
- Gather feedback from teachers and students to identify areas for improvement in the lesson plans and teaching methodologies.
- Determine the practical challenges and opportunities of implementing integrated literacy in diverse educational contexts.











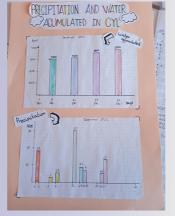


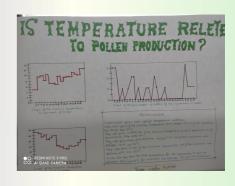
## PILOT ACTIVITY REPORT

Main purpose of the Erasmus+ LTTA piloting activity derives from the results of the Expert teachers work during the Open class activity after each project module (4) within the project partners institutions. This activity consisted following components:

- Selection of approximately 1 class of the partners school students
- Carrying on the piloting activities (Testing the integrated lesson planes in real situation, within the regular teachings and Curriculum)
- Conducting Survey/Evaluation among the students after the piloting is done
- Collecting relevant survey data
- Conducting evaluation among the teachers pair-colleagues (getting their their opinion and suggestions for possible improvements)
- Making presentations (graphs, charts etc.)
- Reporting on P2 piloting activity in order to present the results so that they can be disseminated
- Implementation the results in the mutual Case Study as part of the major projects outcome ILA Integrated Curriculum.



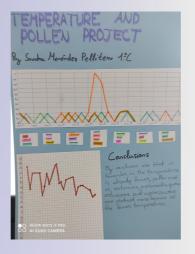




This activity facilitated the integration of project results into standard curricula, ensuring a broader student population could benefit from the ILA project's outcomes.

The insights gained from the pilot activities have positioned the ILA Project for long-term sustainability. Project partners and stakeholders are committed to continuing the integration of literacy principles into regular curricula beyond the project's duration. This includes further developing and refining the integrated curriculum, expanding teacher training programs, and collaborating with educational authorities to integrate integrated literacy into broader educational policies.













## PILOT RESULTS

#### **PILOT RESULTS CROATIA, SPLIT**

KLIK on LINK!





### PILOT RESULTS CROATIA, ZAGREB

KLIK on LINK!

PILOT RESULTS SLOVAKIA, ROZNAVA

KLIK on LINK!





PILOT RESULTS SPAIN, LEON

KLIK on LINK!









## LTTA AND EXPERT-TEACHERS OPEN CLASS









## **OPEN CLASS 1 - EXPERTS ON LITERACY -**INTEGRATED CURRICULUM (ZAGREB, **CROATIA**)

The development of innovative teaching materials, leading to the final project outcomme -Integrated Curiculum, was conceived as an ongoing and collaborative endeavor involving Expert teachers. These educators embarked on a continuous journey to craft engaging and meaningful tasks that facilitated student connections with information. The process commenced during C5, where participating teachers were presented with opportunities to explore areas of interest where their expertise was limited or modest. Through this journey, they embarked on a transformative process that led to several direct benefits:

Improved Pedagogical Skills: Teachers honed their teaching strategies, emphasizing studentcentered learning, which empowered students to take on active roles in their education.

Enhanced Content Knowledge: Teachers expanded their depth of knowledge and competence across various subject matters, enabling themselves to be more versatile educators.

Increased Creativity: The integration of different subjects fostered an environment where teachers could unleash their creativity and innovation when designing lessons and delivering them to students.

Improved Collaboration: Working on the integration of scientific, mathematical, media, and financial literacy encouraged teachers to collaborate with their colleagues from different subject areas. This collaboration resulted in the creation of the first 8 cohesive lesson plans and complementary materials that helped students grasp the interconnectedness of various subjects.

Prof. Development:The integration of diverse subjects prompted teachers to seek professional development opportunities that familiarized them with new pedagogical styles, teaching tools, technologies, and contemporary trends in education.

Guided by expert teachers, students engaged in hands-on projects derived from integrated lesson plans. This practical experience empowered students to apply their learning, fostering critical thinking and problem-solving skills.

Open Class 1 - Experts on Literacy was implemented simultaneously with LTTA Module 1 Integrated Media Literacy (C1). Physical attendees of the C5 activities were Expert teachers from II. Gymnasium Split and X. Gymnasium Ivan Supek. Virtual attendees were Expert teachers from IES ERAS DE RENUEVA, Spain and Pavol Jozef Safarik Gimnazium, Slovakia. The proposed activities were carried on during 5 days in accordance to the previously developed Plan. Expert teachers (8) exchanged good practices and work on designing 2 Lesson Plans, integrating contents from different subjects (Media, Finance, Science and Technology and Mathematics Literacy) around the leading Media Literacy topic. Proposed themes for the C5 were: Fake news and Young influencers. These themes were selected because their potentials in the linking concepts and ability to lead to deeper understanding and correlation between proposed subjects and Media Literacy. Expert Teacher Teams worked together, finding connections that cut across single content areas and finnaly produced 8 interconnected lesson plannes. This was the first step to the Projects main outcomme, The ILA Integrated Curriculum.

The last day of LTTA Expert teachers joined their students and present their results - Intergrated Lessons. Students were assigned to work on small projects that came out of Expert-teachers lesson plannes and finnaly presented their results at the end of the session.



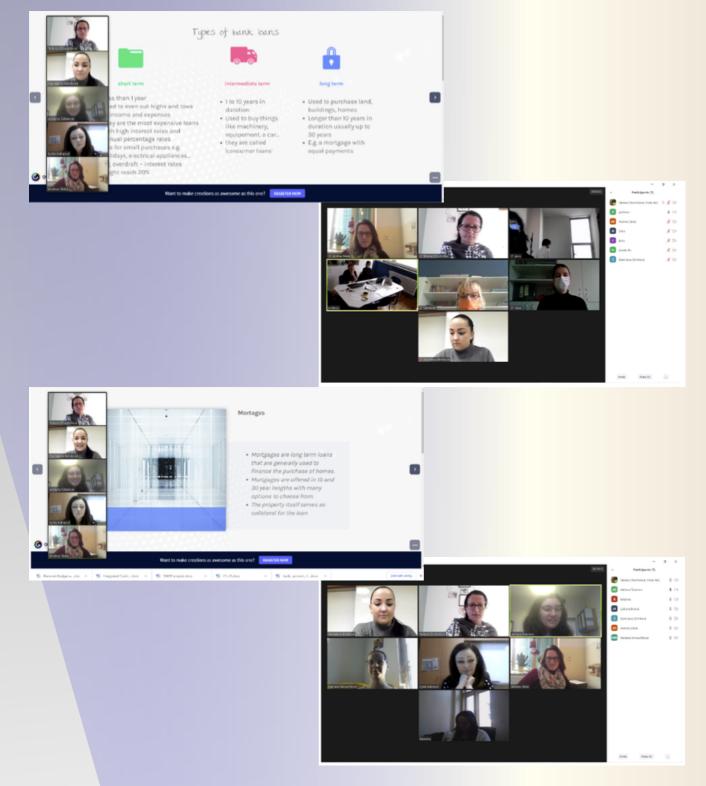






# OPEN CLASS 1 - EXPERTS ON LITERACY - INTEGRATED CURRICULUM (ZAGREB, CROATIA)

On their return, Expert teachers started to implement the pilot testing (P2) activities for 2 Intergrated Lessons that came out as the result of Module 1 - Media Literacy. This activity included more students in each of the partners schools and helped in integration of the projects results in regular learning processes and Curicula.











# OPEN CLASS 2 - EXPERTS ON LITERACY - INTEGRATED CURRICULUM (SPLIT, CROATIA)

Open Class 2 - Experts on Literacy represented the 2nd step towards final project outcome - Integrated Curriculum. It was implemented simultaneously with LTTA Module 4 Integrated Mathematical Literacy (C8). Physical attendees of the C8 activities were Expert teachers from II. Gymnasium Split, X. Gymnasium Ivan Supek, IES ERAS DE RENUEVA, Spain and Pavol Jozef Safarik Gimnazium, Slovakia. The proposed activities were carried on during 5 days in accordance with the previously developed Plan. Expert teachers (8) exchanged good practices and worked on designing 2 Lesson Plans, integrating contents from different subjects (Media, Finance, Science and Technology and Mathematics Literacy) around the leading Integrated Mathematical Literacy topic. Proposed themes for the C8 were: Percentages (Math and healthy lifestyle) and Mathematical functions in real life. These themes were selected because of their potential in linking concepts and ability to lead to deeper understanding and correlation between proposed subjects and Mathematical Literacy. Expert Teacher Teams worked together, finding connections that cut across single content areas and finally produced 8 interconnected lesson plans. This was the second step to the Project's main outcome, ILA Integrated Curriculum.

The last day LTTA Expert teachers joined their students and presented their results - Integrated Lessons. Students were assigned to work on small projects that came out of Expert-teachers lesson plans and finally presented their results at the end of the session.

On their return, Expert teachers started to implement the pilot testing (P13) activities for 2 Integrated Lessons that came out as the result of Module 4 – Integrated Mathematical Literacy. This activity (described in Other Project Events) included more students in each of the partners schools and help integrating the projects results in regular learning processes and Curricula.

Participating in Open Class 2 - Experts on Literacy, which aligned with LTTA Module 4: Integrated Mathematical Literacy (C8), proved to be a highly beneficial experience for both expert teachers and their students. Here are the key ways in which their participation benefited them:

Enhanced Teaching Skills: Expert teachers had the opportunity to refine their teaching skills by collaboratively designing 8 integrated lesson plans. This experience contributed to the development of more effective teaching strategies that prioritized student engagement and active learning.

Expanded Subject Knowledge: By integrating content from various subjects, expert teachers broadened their subject knowledge. This comprehensive understanding allowed them to deliver more holistic and interconnected instruction, benefitting their students.

Interdisciplinary Thinking: Working together to find connections across different subjects fostered an interdisciplinary mindset among expert teachers. This approach encouraged innovative teaching methods leading to student seeing the interconnectedness of various subjects.

Empowered Students: Expert teachers guided their students in working on small projects derived from the integrated lesson plans. This practical experience empowered students to apply their learning, enhancing their critical thinking and problem-solving skills.









# OPEN CLASS 2 - EXPERTS ON LITERACY - INTEGRATED CURRICULUM (SPLIT, CROATIA)

Improved Presentation and Communication: The final presentation of results by both expert teachers and students provided an opportunity to enhance presentation and communication skills. These skills are valuable not only in educational settings but also in various real-world contexts.















# OPEN CLASS 3 - EXPERTS ON LITERACY - INTEGRATED CURRICULUM (ROŽNAVA, SLOVAKIA)

Participation in Open Class 3 marked the 3rd step in the project's progression towards developing the ILA Integrated Curriculum. Expert teachers who attended the Open Class 3 gained a deep understanding of best practices in integrated financial literacy education. They had the opportunity to collaborate with peers from diverse educational backgrounds, allowing for the exchange of innovative teaching methods and strategies. Designing interconnected lesson plans that integrated content from multiple subjects (Media, Finance, Science and Technology, Mathematics) enhanced their pedagogical skills and broadened their teaching approaches. The interconnected lesson plans created during this activity served as a foundation for future project activities and Integrated Curriculum final outcome. Expert teachers improved their teaching practices and pedagogical skills through collaboration and the creation of integrated financial literacy lesson plans. These enhanced teaching practices extended beyond the project, benefiting their students in various subject areas and fostering a more holistic approach to education. In summary, participation in this activity benefited the involved participants by advancing their teaching and learning experiences, promoting international collaboration and cross-cultural exchange, and contributing to the development of innovative teaching materials.

Guided by expert teachers, students engaged in hands-on projects derived from integrated lesson plans. This practical experience empowered students to apply their learning, fostering critical thinking and problem-solving skills.

The integration of financial literacy into regular curricula and the enhancement of teaching practices aligned with the project's goal of improving literacy competencies and fostering a deeper understanding of financial concepts among students and educators.

Open Class 3 - Experts on Literacy (Module 2. Integrated Financial Literacy (C6)) was implemented simultaneously with LTTA Module 2. Integrated Financial Literacy (C2). Physical attendees of the activities were Expert teachers from II. Gymnasium Split, X. Gymnasium Ivan Supek, IES ERAS DE RENUEVA, Spain and Pavol Jozef Safarik Gimnazium, Slovakia. The proposed activities carried on during 5 days in accordance with the previously developed Plan. Expert teachers (8) exchanged good practices and worked on designing 2 Lesson Plans, integrating contents from different subjects (Media, Finance, Science and Technology and Mathematics Literacy) around the leading Integrated Financial Literacy topic. Proposed themes for C6 were: "Spending and saving" and "Travel agency". These themes were selected because of their potential in the linking concepts and ability to lead to deeper understanding and correlation between proposed subjects and Financial Literacy. Expert Teacher Teams worked together, finding connections that cut across single content areas and finally produced 8 interconnected lesson plans. This was the third step to the Projects main outcome, ILA Integrated Curriculum.

The last day of the LTTA Expert teachers joined their students and presented the results of C6 – Integrated Lessons. Students were assigned to work on small projects that came out from Expert-teachers lesson plans work and finally presented their results at the end of the session.

On their return, Expert teachers started to implement the pilot testing (P4) activities for 2 Integrated Lessons that came out as the result of Module 2. Integrated Financial Literacy. This activity included more students in each of the partners schools and helped in integration of the projects results in regular learning processes and Curricula.









## OPEN CLASS 4 - EXPERTS ON LITERACY - NTEGRATED CURRICULUM (LEON, SPAIN)

Participating in Open Class 4 - Experts on Literacy, particularly focusing on Module 3: Scientific and Technological Literacy (C7) and its concurrent LTTA Module 3: Integrated Scientific and Technological Literacy (C3), proved highly advantageous for both expert teachers and their students, offering a range of valuable benefits:

Advanced Teaching Skills: Expert teachers honed their teaching abilities by developing integrated lesson plans. This experience translated into more effective, student-centered teaching strategies, promoting active learning among students.

Expanded Content Expertise: Collaboratively integrating content from various subjects broadened expert teachers' knowledge base. This comprehensive understanding allowed them to deliver more holistic and interconnected subject matter instruction.

Interdisciplinary Thinking: Working together to find synergies across diverse subjects cultivated a strong interdisciplinary mindset. This approach encouraged innovative teaching methods and nurtured connections between different subjects, enriching the learning experiences for students.

Empowered Students: Guided by expert teachers, students engaged in hands-on projects derived from integrated lesson plans. This practical experience empowered students to apply their learning, fostering critical thinking and problem-solving skills.

Open Class 4 - Experts on Literacy (Module 3. Scientific and Technological Literacy (C7)) was implemented simultaneously with LTTA Module 3. Integrated Scientific and Technological Literacy (C3). Physical attendees of the activities were Expert teachers from II. Gymnasium Split, X. Gymnasium Ivan Supek, IES ERAS DE RENUEVA, Spain and Pavol Jozef Safarik Gimnazium, Slovakia. The proposed activities carried on during 5 days in accordance with the previously developed Plan. Expert teachers (8) exchanged good practices and worked on designing 2 Lesson Plans, integrating contents from different subjects (Media, Finance, Science and Technology and Mathematics Literacy) around the leading Integrated Scientific and Technological Literacy topic. Proposed themes for C7 were: "Science to improve our planet" and "ICTs to promote health and physical activity". These themes were selected because of their potential in linking concepts and ability to lead to deeper understanding and correlation between proposed subjects and Scientific and Technological Literacy. Expert Teacher Teams worked together, finding connections that cut across single content areas and finally produced 8 interconnected lesson plans. This was the fourth step to the Project's main outcome, ILA Integrated Curriculum.

The last day the LTTA Expert teachers joined their students and presented the results of C7 - Integrated Lessons. Students were assigned to work on small projects that came out from Expert-teachers lesson planners work and finally presented their results at the end of the session.

On their return, Expert teachers started to implement the pilot testing (P4) activities for 2 Integrated Lessons that came out as the result of Module 3. Integrated Scientific and Technological Literacy. This activity (described in Other Project Events) includes more students in each of the partners schools and helps integration of the projects results in regular learning processes and Curricula.







# OPEN CLASS 4 - LEON, SPAIN

## OPEN CLASS 4 - EXPERTS ON LITERACY - INTEGRATED CURRICULUM (LEON, SPAIN)

















## REPORT ON LTTA ZAGREB, CROATIA

First Erasmus+ ILA project module was dedicated to media issues. Physical attendees of the Module 1, Integrated Media Literacy activities were students and teachers-mentors from II. Gymnasium Split and X. Gymnasium Ivan Supek. Virtual attendees were students and teachers-mentors IES ERAS DE RENUEVA, Spain and Pavol Jozef Safarik Gimnazium, Slovakia.

The activities were carried out in accordance with the plan and program as follows:

Day 1 After the Warm-up activities participants carried out a workshop Video Games and Media Literacy conducted by dr. sc. Ilija Barišić. As a result of the workshops practical part students were describing the mechanics of the games, their position as a player and mechanisms and effects of the fake news spreading. In the afternoon students and their teachers enjoyed a costumed Guided tour - Zagreb, learning of the culture, customs and tradition of the capital city and Croatia.

Day 2 Workshop - Advertising, conducted by Dr. sc. Ilija Barišić, dealt with the topic of advertising. After the lecture, students were involved in the practical segment, producing various materials (advertisements, posters, clips) connecting advertising with the needs of teaching, learning and media presence in everyday life and school. In the afternoon, students and their teachers visited the Museum of broken relationships.

Day 3 was dedicated to Emotions and Media and Film Literacy.

Lecture Emotions and Media was presented by school psychologist Marija Roth. Special observations were focused on Neuromarketing in Social media networks. Participants learned how the media use their emotions (emoticons) for advertising purposes.

Film Literacy Workshop, conducted by Dr.sc. Ana ĐordiĆ presented topics such as: What is film literacy and why is it important; Basic terms of Film Theory (Taylor&Timberlake), Film language and techniques. They watched and analysed: Commercial Whodoneit; Film Sweetie (Aldo Tardozzi); Bitcoin Boy.

Day 4 - Field trip to Samobor including the workshop in Medičarna craft factory.

Day 5 Joint activities: Expert teachers and students

Last day of the LTTA was in the light of joint activities. Open Class-Expert teachers presented their findings in the form of integrated lesson plans, combining media topics with Mathematics, Finances, and Scientific&Technological Literacy. In the evening the participants gathered for the Farewell event where students and teachers of X. Gymnasium organized a Christmas Fair and Live

First module activities engaged the assistance of school journalists, media literacy and music groups that monitored and documented all events of LTTA-Zagreb. Because of the specific requirements, due to the fact that within very short time notice events turned into blended LTTA, additional Team (15 teachers and 20 students) contributed to the implementation of LTTA Media Literacy. All LTTA activities were evaluated (Google docs questionnaires) and documented on photographs and videos.

During the Integrated Media Literacy Module 1 the participants learned how various forms of media channels and appearances affect their daily lives and learning processes. From implemented workshops and lectures, in cooperation with their mentors and Expert-teachers, they've learned about the possibilities of incorporation of the C1 results into everyday learning/teaching processes and subject curricula. The implementation of the C1 activities deepened their knowledge on information that media distribute or impose. They learned about different ways of filtering and usage of media information via lectures and







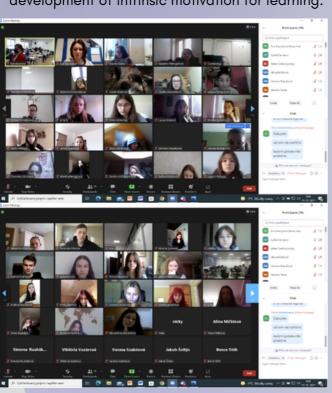


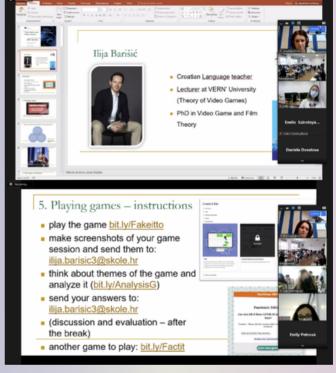
#### REPORT ON LTTA ZAGREB, CROATIA

practices provided by media specialists. They understood the interconnection of Media Literacy with other subjects (Mathematic, Science and Technology, Media, Finances) while developing and mastering the skills such are: Time management; Prioritisation; Goal setting; Problem solving; Analytical and critical thinking; Teamwork; Leadership; Public speaking; Debating. Students and teachers' participation in C1 activities gave them new passion about the Media issues, increasing their abilities for critical evaluations and thinking, helping them to concentrate and learn how to manage their personal and academic time better. It is expected that consequently this will improve their grades and form more positive attitudes toward higher academic aspirations as well as the outlook of their school in general.

Specific conditions of virtual surroundings (blended) improved students' presentation and communication skills.

The students and teachers participation in the C1 activities improved as well their abilities to critically observe and decode the cultural, social, political and ideological aspects of media usage while bringing them wider perspective and newly gained confidence while supporting the development of intrinsic motivation for learning.

















#### REPORT ON LTTA SPLIT, CROATIA

By taking into account safety of all participants, due to the possible risk situations caused by the war in Ukraine, all partners agreed on a proposition to switch the Module 2 in Slovakia with Module 4 which was consequently held in Split, Croatia.

Second Erasmus+ ILA LTTA was dedicated to the mathematical issues. Attendees were students and teachers-mentors (4) from II. Gymnasium Split, X. Gymnasium Ivan Supek, Zagreb, IES ERAS DE RENUEVA, Spain and Pavol Jozef Safarik Gimnazium, Slovakia.

The activities were carried out in accordance to the proposed plan and program as follows:

Day 1 introduced lectures and workshops: "Forking Our Way Through Math Menu", "Percentage", "Food waste and the environmental impact of food production and consumption".

Day 2 put emphasis on connection between Mathematics and Sports: "Math and sports - statistical analysis and football", " Math - Count On Me "," On the Move ", "Math and football - Football formations-steps and distance measurement". Students obtained results and made infographics presenting their observations and mathematical analyses. Afternoons Escape Room, held in the narrow city centar contained dynamic and funny tasks. Students were solving mathematical tasks within the story of an epidemic of an infectious disease.

Day 3 was dedicated to the Functions in real life - Demographics: Shaping the future. Students investigated demographic and population trends in their country (How has the age structure of the population changed in a certain period of time?). By using GeoGebra analyses and mathematical functions, students predicted how demographic trends may affect the choice of young people's future occupation by age groups. In the afternoon students visited the Meštrović Gallery.

Day 4 - On the field trip to the island of Brač participants visited local stonemasons craft workshop, observed the ways of processing stone and learned about local history.

Day 5 - Joint activities: Open Class-Expert teachers presented their findings in the form of Integrated lesson plans (8), combining Mathematical topics with Media, Finances and Scientific&Technological Literacy. Students were assigned to one team-activity derived from Open Class lesson plans and presented their results in front of all participants. In the afternoon everyone gathered for the Farewell event where all students and teachers participated in Pub-Quizz competition.

During the first 3 days students presented the results of the P19 activities related to the: Countries national dishes with an emphasis on the percentage of certain nutrients in the diet; Surveys on healthy living habits; Selection of their cities monuments performing measurements by usage of trigonometric functions and a clinometer.

School teachers Sanja Vitaljić, Ana Pavičić Lešić, Marin Borzić, Karmen Šesnić, Sanda Ilić prepared and conducted all lectures and workshops for Module 4, Split. All activities were evaluated (GD questionnaires) and documented by photografies and videos.

During the Integrated Mathematical Literacy Module 4 the participants learned how various mathematical topics affect their daily lives and learning processes. From implemented workshops and lectures, in cooperation with their mentors and expert-teachers from Open Class activity, they've learned about the possibilities of incorporation of the C4 results into everyday learning/teaching processes and subject curricula. The implementation of the C4 activities deepened their knowledge on possible connections between Mathematical and other curriculum subjects.









## REPORT ON LTTA SPLIT, CROATIA

Via lectures and practices they understood the interconnection of Mathematical Literacy with other subjects (Media, Natural sciences, Finances) while developing and mastering the skills such are: Time management; Prioritisation; Goal setting; Problem solving; Analytical and critical thinking; Teamwork; Leadership; Public speaking; Debating. Students and teachers participation in C4 activities gave them new passion about Mathematical issues, increasing their abilities for critical evaluations and thinking, helping them to concentrate and learn how to manage their personal and academic time better. It is expected that consequently this will improve their grades and form more positive attitudes toward higher academic aspirations as well as the outlook of their school in general. The students and teachers participation in the C4 activities improved as well their abilities to critically observe and decode the cultural, social, political and ideological aspects of media usage while bringing them wider perspective and newly gained confidence while supporting the development of intrinsic motivation for learning.





















## REPORTON LTTA ROŽNAVA, SLOVAKIA

Pavel Jozef Šafárik Gymnasium hosted the third LTTA module of the Erasmus+ Integrated literacy in action project from October 10th - 14th, 2022.

The activities of Financial literacy Module took place in the Pavol Jozef Šafárik Gymnasium, at historical sites, in the museums of the Rožnava - KoŠice region, as well as in the institution of the National Bank of Slovakia in city of Košice. Within a five-day program, our hosts covered the theme of financial literacy through a series of contemporary topics from this area. In the introductory part, the students individually presented their schools, cities and countries within the previously assigned topic "Travel Agency". These are the results of individual partner schools that are created within the framework of pre-activities for each individual module. In the forthcoming days, participating students and their teacher-mentors of the partner schools, participated in workshops and lectures: "Financial planning", "Old age pension schemes", "Let's think about money", "Investment and pension". The LTTA program also included different outdoor activities connected with the Financial topics: Visit to Calvary memorial site, Gombasek cave, Museum complex of the Betliar castle, Rožnava tower and visit to the city of Košice (guided tour). Students and their mentors participated in an Escape room game and the workshop where our hosts presented traditional Slovak cuisine. On the last day of this module, the expert teachers conducted a selected activity from the Open class - Expert teacher activity with the students. The participants solved tasks from the new teaching units, incorporated in the final result of the Erasmus+ ILA project - Integrated Curriculum. The way our hosts traditionally welcomed us with bread and salt, so in the final farewell event of this LTTA, they performed beautiful traditional Slovak dances for the participants.

During the LTTA Integrated Financial Literacy Module 2 the participants learned how various topics from the area of Finances affect their daily lives and learning processes. From implementing workshops and lectures, in cooperation with their mentors and expert-teachers from Open Class activity, they've learned about the possibilities of incorporating the results into everyday learning/teaching processes and subject curricula. The implementation of the C2 activities deepened their knowledge on possible connections between subjects of Finance Literacy and other curriculum subjects. Via lectures and practices provided by financial specialists they learned about various and contemporary ways on handling, planning, saving and investing money for their own, their families and their communities future benefits. They understood the interconnection of Financial Literacy with other subjects (Media, Natural Sciences&Technology, Mathematic) while developing and mastering the skills such are: Time management; Prioritisation; Goal setting; Problem solving; Analytical and critical thinking; Teamwork; Leadership; Public speaking; Debating. Students and teachers participation in C2 activities gave them new passion about the finances issues, increasing their abilities for critical evaluations and thinking, helping them to concentrate and learn how to manage their personal and academic time better.







## REPORTON LTTA ROŽNAVA, SLOVAKIA



















## REPORT ON LTTA LEON, SPAIN

Last Erasmus+ ILA LTTA was dedicated to the Integrated Scientific and Technological topics. Attendees were students (31) and teachers-mentors (4) from project partners schools.

The activities were carried out in accordance to the proposed plan and program as follows:

Day 1 – After the Ice breaking activities and Opening ceremony students presented the results of the pre-work activities – Countries traditional sports (Spain – Lucha Leonesa, Slovakia – Ice-hockey, Croatia, Split – Picigin, Croatia, Zagreb – Alka) followed by practice on the different traditional sports on school yard and lawn. In the afternoon participants visited Cathedral Gymkana in the Leon City center. By using a mobile app. Actionbound, students followed some clues while discovering different monuments and special interesting city places.

Day 2 activities named "Science to improve our planet" encompassed visiting the Castle of Ponferrada, Light Museum and trekking and sightseeing Las Médulas. Participants enjoyed physical activities and an amazing landscape created as a direct product of human influence and engineering technology "destruction of the mountain" – gold mining dating to the Roman period.

Day 3 started with the participants visit to the City Hall and meeting with Major of Léon. Students continued with the pre-work presentations about "Knowing historical scientific men and women" of their Countries followed by Workshop-Experimental activities on Biotechnology guided by members of the Biotechnologists Association of León. Last activity of the day was organized at the University of Léon where participants had the opportunity to observe and try out the real Flight simulator.

4th Day was dedicated to ICT helping health and physical activity. Participants were trekking and sightseeing at Sabero. After the physical activities, physical and chemical parameters directly related to sports practice were monitored. By use of the appropriate ICT devices they measured the degree of oxygen saturation, blood pressure, and body temperature. During the second part of 4th day activities students and their mentors visited Riaños most beautiful swing in the world and enjoyed the boat trip on Riaño reservoir.

Day 5 was in light of Joint activities: Open Class-Expert teachers assigned one activity derived from Open Class lesson plans to their team and finally students presented their results in front of all participants.

Final event took place at the Schools garden where participantes planted a beautiful Ginkgo biloba tree as a tolkien and remembrance to our Erasmus+ ILA project. Principal IES Eras de Renueva Mr. Julio Carlos Fernández Domínguez, together with Mª Adoración Candelas González, Erasmus+ coordinator organized the ceremony of awarding the final certificates and formally closed the LTTA activities of the Erasmus+ ILA project in a touching and emotional way.

While participating LTTA - Module 3 students were presented with good examples on how the technology can improve people's lives. They become aware of the various technological possibilities, from ancient history to recent state of the art ones. Implemented activities allowed students to contact young researchers and modern scientific techniques encouraging scientific vocations or at least the interest of students about science. They were also very physically active, all with the aim of gaining awareness of important environmental issues of today as well as issues on a personal level - the importance of human health. They successfully created links with the accompanying technological achievements and available IT applications that can positively help them in their daily lives.







## REPORT ON LTTA LEON, SPAIN





























## RESULTS ON PREWORK ACTIVITIES

Pre-work 1-4 activity represented various stages of preparation, introduction, and implementation of activities related to media, financial, science and mathematics literacy, with a focus on student engagement and collaboration between students within and across partner schools. For each Module (1-4) Activity leader created: **Explanatory videos** as the instruction on Module main theme with specific tasks for participating students; **Guidance instructions** with clear objectives and expectations finally resulting with students presentations, surveys, questionnaires, project-logo, graphs and videos.

Purpose of this activity was students/mentor-teachers introduction to the major topic so that they could be more efficient in carrying out the activities that took place during the LTTA 1-4.

#### PREWORK SPLIT, CROATIA

KLIK on LINK!





PREWORK ZAGREB, CROATIA KLIK on LINK!

#### PREWORK ROZNAVA, SLOVAKIA

KLIK on LINK!





PREWORK LEON, SPAIN KLIK on LINK!









## CONCLUSION

The last decade has confronted teachers and students with radical changes in educational processes. The "explosion" of knowledge, fragmented teaching schedules, concerns about curriculum evaluation and the lack of connections and relationships between disciplines are often mentioned in recent studies (Jacobs 1989; Lipson, et al. 1993; Cromwell 1989) and European literacy projects (EU HGHGL, 2012., PISA 2018., PIRLS 2016., ADORE 2009., Eurydice 2011.; EU HLGEL, 2012.) state as reasons for attempting educational processes towards the integration of knowledge. Concerns about national literacy achievement levels and high dropout rates have put the spotlight on any educational change that can lead to increased student achievement. Integration is emerging as one of the possible successful solutions.

It is widely acknowledged that the ability of young individuals to draw connections, solve problems from multiple perspectives, and incorporate insights from various fields will be crucial for their future success. The ILA Integrated Curriculum approach provides an ideal setting for valuable instructional techniques such as cooperative learning and interdisciplinary classrooms, fostering a greater awareness of connections between content areas. Such a learning environment supports academic and social needs while nurturing stronger student-teacher relationships.

A central objective of the Erasmus+ ILA Project is to enhance students' exposure to essential skills. Instead of limiting comprehension strategies to a single subject, teaching these strategies across multiple disciplines provides students with more opportunities to apply them. Integration offers a way to overcome the fragmented and irrelevant acquisition of isolated facts, transforming knowledge into practical tools for learning new information and ultimately achieving comprehensive literacy skills. By fostering connections across different areas of study and emphasizing overarching concepts, integration enables students to engage in meaningful, real-life activities leading to a deeper understanding of information and improved retention, ultimately enhancing their literacy skills and intrinsic motivation.

Throughout the exchange of best practices and Learning, Teaching, and Training Activities (LTTA), Project Expert-Teachers turned to an Integrated Curriculum rooted in real-life contexts to address teachers' most common inquiries. In the process of creating challenging, enjoyable, and meaningful tasks that facilitate student engagement with information, participating teachers had the chance to explore various areas of interest, even those where their expertise was limited. Both teachers and students seized the opportunity for growth, reflection, and exposure to diverse perspectives, strengthening their roles and professions.

Tangible outcomes of the ILA Project activities are showcased in a Case Study that encompasses LTTA activities and a mutual Integrated curriculum developed through Expert-Teachers' Open Classes. This curriculum spans four subject areas: Media, Finance, Science, and Mathematics.

The intangible results of the Erasmus+ ILA Project are expected to manifest in shifts in the social and educational ethos whenever the benefits of integrated teaching become a focal point for educational policy decision-makers.

Jelena Crnek, teacher Erasmus+ ILA Project Coordinator









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