

TOOLKIT

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- Plant Growth Experiment
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GROWTH MINDSET 1 Values in society

Asturia vzw n. 42

Methodologies: Developing social & cross-cultural interactions

Research suggests that the way in which each of us thinks and acts in daily life can be influenced by the attitudes and values in the cultures to which we belong. When we come into contact with people from different cultural backgrounds we can sometimes encounter in daily life behavior that does not match our assumptions and expectations. We can sometimes even misinterpret other people's behavior in daily life and make incorrect assumptions based on our own cultural background. This can result in confusion, misunderstandings and even conflict. The checklist has been designed to help you identify some of the ways in which your cultural background has had an impact on your behavior in daily life.

Methodology:	Group work	Strategies for developing social & cross-cultural interaction		
Subject	Ethics			
Life skill related	Growth mindset			
Title	Values in society			
Age/Grade	Children of the age of 14			
Timing	60 min			
Suggestion for who facilitate	Children of the age of 14 with a different background who are invited to reflect on some of their own cultural values, and asking them to explore the potential impact of cultural differences as they work in a new country.			
Description of the activity	 Give a copy of the Values in society checklist to the learner. The learner will have probably identified important cultural differ between his or her own approach and that of another culture or country of interest. Discuss some of the following questions with the learner Read each description in order. Decide which behavior is closest to your own. If you identify with statements, choose the one you identify with more often, or in m situations. Mark a score indicating how strongly you tend to exhibit this behaven a different culture of interest to you would probably respond to the statements. Additional activities: Where you have identified important cultural different between you approach and that of people in the culture or country of intervou, consider Are these differences important? How might these differences become apparent in the working environment? How might people from that country or culture perceive your approach? What challenge do these differences present? In what ways might you adapt your behavior to manage and over 			





The values in society checklist

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GROWTH MINDSET 2 Architects of Time

IRECOOP AAS

Template n. 43

Deepen historical understanding through the creation of a collective story.

Develop 'Growth Mindset' competence by promoting collaboration and creativity in narrative construction.

Fostering open-mindedness towards narrative and historical challenges





Methodology:	peer learning and		
Wethodology.	cooperative learning, group work, collaboration		
Subject	History		
Life skill related	Growth Mindset		
Title	Architects of Time		
Age/Grade	12- 14		
Timing	180 minutes		
Suggestion for who facilitate	Necessary Materials: Sheets of paper and pens Large sheets of paper or whiteboard paper Historical resources or texts on narrative creation Online educational resources (if necessary) Activity in small groups. Activities are developed in 3 meeting		
Description of the activity	Lesson 1: Opening Activity :		
	 Discussion on Growth Mindset and Its Application in Collective Storytelling (15 minutes) Begin the lesson by explaining the concept of Growth Mindset, emphasizing how it can be applied in the creation of a collective story. Growth Mindset refers to the belief that abilities and skills can be developed through effort, practice, and continuous learning. Stress the importance of this concept in historical learning and narrative creation. Pose open-ended questions to stimulate discussion among students: What does having a Growth Mindset mean to you? How can it influence how we approach challenges in historical storytelling? Can you share experiences where you have applied this skill during history study or in other situations? Conclude the discussion by summarizing briefly how Growth Mindset can be applied in creating a collective story. Emphasize the importance of being open to new ideas, accepting and learning from feedback, seeing challenges as 		
	opportunities for growth, and set activity goals with the students (e.g., working together to develop an engaging plot and integrating historical elements with flexibility). Analysis of Historical Period (25 minutes): Students explore an assigned historical period, identifying key events and significant figures.		
	Building Historical Context (20 minutes): In groups, students construct historical context for the collective story, considering challenges and opportunities of the era.		
	Example of Lesson 1: During the construction of historical context, students might explore the Renaissance. Each group will select a different aspect, such as art, science, or politics, and create historical context by integrating the challenges and opportunities of that era.		
	Lesson 2: Designing the Collective Story		
	Introduction to Narrative Construction (15 minutes):		





 Discussion on key elements of a story, such as plot, characters, and setting.

Group Work (30 minutes):

 Students, still in groups, develop a plot for the collective story, focusing on the challenges the characters will face.

Presentation and Feedback (15 minutes):

 Each group presents their narrative concept to the class and receives feedback from other students.

Example of Lesson 2: In designing the story, students might develop a plot involving historical figures like Leonardo da Vinci and Galileo Galilei. The challenge will be to flexibly integrate historical facts into creative plots.

Lesson 3: Writing and Collective Reflection

Writing Activity (25 minutes):

 Students, still in groups, begin writing the collective story, focusing on collaboration and integrating historical challenges.

Revision and Editing (20 minutes):

 Groups exchange stories and provide mutual feedback to improve narrative coherence and quality.

Conclusion and Final Discussion (15 minutes):

 Discussion on individual and collective growth during the narrative creation process, highlighting the value of growth mindset.

Example of Lesson 3: During collective writing, students will need to be flexible in negotiating and adapting the plot as new ideas emerge during the creative process. Revision and editing will encourage flexibility in reflecting on necessary changes to improve the story.

Assessment:

Assessment will be based on active participation, creativity in narrative construction, the ability to apply growth mindset in collaboration and writing.

Final Notes

This activity blends history with the "Growth Mindset" competency, encouraging students to work together in constructing a collective story. Narrative creation promotes creativity and critical reflection on personal and historical growth.





GROWTH MINDSET 3 Polygon Area Estimation and calculation

Asociatia Edulifelong

n. 44

Methodologies: Problem-Based Learning

The Growth Mindset Area Estimation Challenge is an engaging activity designed to develop students' problem-solving skills and promote a growth mindset. By decomposing complex polygons into simpler shapes and estimating their areas, students will learn to tackle challenging mathematical problems with confidence and perseverance.

	T	1		
Methodology:	Problem-Based Learning	Growth Mindset Approach Collaborative Learning Reflection		
Subject	Mathematics			
Life skill related	Growth Mindset, Problem-Solving, Critical Thinking			
Title	Polygon Area Estimation and calculation			
Age/Grade	12-14			
Timing	120 minutes			
Suggestion for who facilitate	Mathematics Teachers Activity in small groups.			
Description of the activity	Activity Overview:			
	Getting Started: Introduce the Growth Mindset Area Estin framing it as an exciting adventure where estimation. Emphasize the importance of through difficulties. Procedure:	they will explore the concept of area		
	 Polygon Decomposition: Present students with a complex polygon and explain that their task is to estimate/calculation area Problem-Solving Strategies: Review problem-solving strategies with the students, such as breaking down the problem into smaller parts, using approximation techniques, and making reasonable estimations based on known information. Group Work: Divide the class into small groups and provide each group with a different polygon to estimate the area. Encourage collaboration and teamwork as students discuss strategies, share ideas, and work together to decompose the polygon and estimate its area. Estimation and Calculation: Instruct students to calculate the area of each decomposed shape and then sum the areas to estimate/calculate the total area of the polygon. Ask them to explain their reasoning and justify their obtained results. Encouragement and Reflection: Throughout the activity, provide positive reinforcement and encouragement to students as they tackle the challenge. Celebrate their efforts and achievements, regardless of the outcomes. After completing the estimation, facilitate a reflection session where students discuss their approaches, challenges encountered, and lessons learned. Conclusion: Wrap up the activity by reinforcing the key messages about growth mindset and problem-solving. Encourage students to continue embracing challenges and approaching mathematical problems with confidence and perseverance. Remind them that with effort and persistence, they can overcome obstacles and achieve 			





GROWTH MINDSET 4 Gaining insight into economic processes behind mobile phones and mobile phone services

Asturia vzw n. 45

Gaining insight into economic processes behind mobile phones and mobile phone services.

The final objectives of this task is that learners are able to illustrate that technical systems evolve and improve. They learn making choices when using or realizing a technical system, taking into account the need, the requirements and the available resources. The learners can illustrate with an example of their own choosing how the price of a product is determined and realize that their behavior is influenced by advertising and the media. The learners learn to pay attention to price-quality and sustainable development as well as to consumer rights when purchasing goods and using services;

Methodology:	Group work	Strategies for gaining insight into economic processes			
Subject	Economy				
Life skill related	Growth mindset				
Title	Gaining insight into economic processes behind mobile phones and mobile phone services				
Age/Grade	12 - 14	12 - 14			
Timing	120 minutes				
Suggestion for who facilitate	behind mobile phones and m It is advisable to update activ offers				
Description of the activity	- Compare different mobile p What are the advantages and and how do they compare in - Also compare the calling sul Compare the prices and bene - Finally, also include addition participating in competitions - Also draw attention to the s ringtones or mobile phone ga Step 2: Let the learners put e the cheapest formula is. Step 3: Compare the advertis known and lesser-known pro to attract customers? What is advertising, fame or cost? Points of attention Prepare the lesson well by fir with you. If necessary, bring sididactic material. Keep in mind that there may	Activity in class group Step 1: Price comparison - Compare different mobile phone models, including for example a smartphone. What are the advantages and disadvantages of the different types and brands and how do they compare in terms of cost. - Also compare the calling subscriptions: fixed subscription versus prepaid cards. Compare the prices and benefits of different providers. - Finally, also include additional costs: ringtones and other downloads, costs for participating in competitions and games, all kinds of popular apps, etc. - Also draw attention to the small print of download subscriptions (e.g. for ringtones or mobile phone games). Step 2: Let the learners put everything into tables. Let the learners calculate what the cheapest formula is. Step 3: Compare the advertising slogans, brochures and videos of various well-known and lesser-known providers. What elements or eye-catchers do they use to attract customers? What is their strategy? What are your learners guided by: advertising, fame or cost? Points of attention Prepare the lesson well by finding advertising material in advance and bringing it with you. If necessary, bring your own mobile phone and telephone bill as			





GROWTH MINDSET 5 Plant Growth Experiment

YAEDA

Template n. 46

Methodologies: Inquiry- based learning. Collaborative Learning, Experimental Learning, Reflection, Data Analysis, Scientific Method

Objective: To develop students' growth mindset by engaging them in hands-on experiments that demonstrate the principles of plant growth and the importance of continuous learning and progress.

Methodology:	Inquiry- based learning		
Subject	Biology		
Life skill related	Growth mindset: Belief in one's and others' potential to continuously learn and progress		
Title	Plant Growth Experiment		
Age/Grade	12-14		
Timing	120 minutes		
Suggestion for who facilitate	Biology teacher, science teacher, educator figure Activity in small groups. Activities are developed in 2/3 meeting		
Description of the activity	Introduction to Growth Mindset and Plant Growth		
	Begin with a discussion about the concept of a growth mindset, emphasizing the		
	belief in one's ability to learn and improve over time.		
	Introduce the basics of plant growth, including factors that influence growth such		
	as light, water, soil, and nutrients.		
	Formulating Hypotheses:		
	Divide students into small groups and assign each group a different variable to		
	test (e.g., amount of light, type of soil, amount of water).		
	Each group formulates a hypothesis about how their assigned variable will affect		
	plant growth.		
	Encourage students to think creatively and be open to unexpected results,		
	reinforcing the growth mindset principle that learning comes from both successes		
	and failures.		
	Setting Up Experiments :		
	Groups set up their plant growth experiments, carefully controlling their assigned		
	variable while keeping other conditions constant.		
	Students plant seeds, label their pots, and make initial observations about their		
	experimental setup.		
	Emphasize the importance of meticulous documentation and observation as part		
	of the scientific process.		
	Observation and Data Collection :		
	Over a period of days or weeks, students regularly observe and document the		
	progress of their plants in their journals.Provide a brief in-class observation		
	period where students can measure plant growth, note changes, and discuss their		
	findings with their group members. Encourage students to note any challenges or		
	unexpected results, fostering a mindset of curiosity and resilience.		
	Analysis and Reflection:		
	Groups analyze their data, comparing their initial hypotheses with the actual		
	results of their experiments. Facilitate a class discussion where each group shares		
	their findings, challenges faced, and lessons learned.Lead a reflection session		
	where students discuss how the growth mindset helped them navigate the		
	experiment, particularly in dealing with setbacks or unexpected outcomes.		
1	experiment, particularly in dealing with setbacks of unexpected outcomes.		





GROWTH MINDSET 6 Historical Discoveries

YAEDA

Template n. 47

Methodologies: Inquiry- based learning. Collaborative Learning, Reflection, Goal Setting, Celebration Objective: To develop students' growth mindset by engaging them in a historical exploration where they believe in their own and others' potential to continuously learn and progress.

Methodology:	Inquiry- based learning		
Subject	History		
Life skill related	Growth mindset		
Title	Historical Discoveries		
Age/Grade	12 - 14		
Timing	120 minutes		
Suggestion for who facilitate	History teacher, educator figure Activity in small groups		
	belief in one's ability to learn and improve over time. Share examples of historical figures who demonstrated a growth mindset in overcoming challenges and achieving success. Historical Inquiry Stations: Set up inquiry stations around the classroom, each focusing on a different historical event, figure, or concept. Provide guiding questions and resources for students to explore at each station.		
	Encourage students to approach each station with curiosity and a willingness to learn, emphasizing the idea that understanding history is an ongoing process of discovery. Collaborative Analysis: After exploring the inquiry stations, students gather in small groups to discuss their findings and insights. Facilitate group discussions that encourage students to share their interpretations, ask questions, and challenge each other's perspectives. Emphasize the value of collaborative learning and the diverse viewpoints that contribute to a deeper understanding of history. Reflection and Goal Setting:		
	Lead a guided reflection session where students reflect on their learning experiences and identify areas where they demonstrated a growth mindset. Encourage students to set one specific goal for applying a growth mindset in their future historical inquiries or other academic endeavors. Sharing and Celebration: Invite students to share their reflections and goals with the class, fostering a supportive and encouraging environment. Celebrate the progress made and the potential for continued growth in historical understanding and beyond.		





GROWTH MINDSET 6 Historical Discoveries

YAEDA

Template n. 47

Methodologies: Inquiry- based learning. Collaborative Learning, Reflection, Goal Setting, Celebration Objective: To develop students' growth mindset by engaging them in a historical exploration where they believe in their own and others' potential to continuously learn and progress.

Methodology:	Inquiry- based learning			
Subject	History			
Life skill related	Growth mindset			
Title	Historical Discoveries			
Age/Grade	12 - 14			
Timing	120 minutes			
Suggestion for who facilitate	History teacher, educator figure Activity in small groups			
Description of the activity	Introduction to Growth Mindset: Begin with a discussion about the concept of growth mindset, emphasizing the belief in one's ability to learn and improve over time. Share examples of historical figures who demonstrated a growth mindset in overcoming challenges and achieving success. Some examples could be: Malala Yousafzai, Najat Belkacem, Simona Atzori, Katalink Karikó and Drew Weissman; Anthony Hopkins. Historical Inquiry Stations: Set up inquiry stations around the classroom, each focusing on a different historical event, figure, or concept. Provide guiding questions and resources for students to explore at each station. Encourage students to approach each station with curiosity and a willingness to learn, emphasizing the idea that understanding history is an ongoing process of discovery. Collaborative Analysis: After exploring the inquiry stations, students gather in small groups to discuss their findings and insights. Facilitate group discussions that encourage students to share their interpretations, ask questions, and challenge each other's perspectives. Emphasize the value of collaborative learning and the diverse viewpoints that contribute to a deeper understanding of history. Reflection and Goal Setting: Lead a guided reflection session where students reflect on their learning experiences and identify areas where they demonstrated a growth mindset. Encourage students to set one specific goal for applying a growth mindset in their future historical inquiries or other academic endeavors. Sharing and Celebration: Invite students to share their reflections and goals with the class, fostering a supportive and encouraging environment. Celebrate the progress made and the potential for continued growth in historical			
	understanding and beyond.			
Final notes	It is better to prepare a guideline with questions that could facilitate the discussion between the students, focusing on the topics that have to be achieved.			



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