

LESSON PLAN TEMPLATE

Teacher's name: Mihaela Kelava	Subject: Computer Science (ICT)	Topic: (t)EC(hn)OLOGY
ESD Skills and Related SDGs: SDG 4 Quality education SDG 9 Industry, innovation, and infrastructure SDG 11 Sustainable cities and communities SDG 12 Responsible consumption and production	Community Relevance and Actions: Students will detect problems in our town, explore them and suggest solutions in a way to propose what could be done. They will tackle pollution, infrastructure, our way of life and habits. Students will be able to: <ul style="list-style-type: none"> • Describe how much natural resources is needed to produce one computer or cellphone • Describe which technology achievements are used every day and how do they affect us • Safely dispose old technology devices • Utilize technology to reduce pollution and preserve life • Describe how can cities become sustainable while using technology (clean energy) How much is today's technology harming our planet? Can technology help reduce pollution? How could cities and education utilize technology in a sustainable way?	Teaching Technique: Learner-centered method Class discussion Pair work
LEARNING OBJECTIVE	Developing digital skills, critical thinking, media literacy. Raise awareness of the environmental issues, learn how to improve way of living.	
ASSESSMENT	Students will play two Kahoot games during the first part of the lesson, create their design during the second part, vote and publish their work.	
MATERIALS	All materials for this lesson are published on the page: https://mihaelakelava.wixsite.com/lessonsforisdg/t-ec-hn-ology	
Parts of the Lesson	Key Details	Key Academic and Learning Topics for Today's Lesson
INTRODUCTION -Daily Routine -Learning Outcome and Agenda -Motivation	Ask students to say a few activities that are conducted with technology now that people did by hand in past (creating clothes, washing clothes, learning sources...). Which technology achievement would they missed the most?	Technology development SDGs
TEACHNG, LECTURE AND MODELING -Engage Student -Key knowledge	Watch presentation Development of technology through history and discuss what will happen with technology in the future (you can prepare Mentimeter or Answergarden for students to post their visions). Let them play Kahoot game (link after presentation) Cellphone is one of the latest achievements. Do you know what it takes to create one cellphone? Watch video.	Sustainable city

	<p>After video finishes, discuss what was wrong in the video? (cellphone wasn't recycled!)</p> <ul style="list-style-type: none"> - What would this kind of behavior result with? - How should we act? Talk about Olympic medals from old devices: https://olympics.com/en/news/designs-of-tokyo-2020-s-recycled-medals-unveiled <p>Discuss next two posters: Pros and cons of using technology – discussion on how to make technology sustainable and environment friendly With and without technology</p> <p>Show students video Smart cities What does smart city mean? (green energy, zero/low waste, recycling, no/low pollution, organic food, big green areas, co-living of people and animals/nature) Let students play Kahoot game.</p>	
<p>ACTIVITY - pair work</p>	<p>Watch four videos (bottom of the page).</p> <p>Introduce creative task: Take a photo of neglected part of your city, replan and remodel photographed place respecting sustainable development. It's common to use filters on your images, now you will have a chance to "filter" part of your city.</p> <p>Taken photo can be printed and you can draw your idea on the photo, or it can be edited in photo editing software. You can take photos from different angles and use one of all of them to create your design.</p>	
<p>CLOSING and ASSESSMENT - Reflect on Learning Outcome -Review Key Points or Common Errors -Relate to Future Lessons</p>	<p>Students present their plan showing the final image and explaining their idea.</p> <p>All pairs publish their work on shared Miro board.</p> <p>Prepare voting and let students vote the best solution. Point on the best smart city principles in final designs.</p> <p>If you have possibility, present it to your local authorities.</p>	
<p>Additional links</p>	<p>For more ideas on how to introduce this topic in your classroom check the link: https://www.earthwiseaction.org/free-sustainable-cities-lesson-plans</p>	