**Your lesson plan/**

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| Topic/Lesson Title: **Girls/Women in ICT and STEM** |
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| Methodology: * Interactive and student-centered approach
* Use of digital tools (Mentimeter, [GooseChase](https://studio.goosechase.com/))
* Group activities and collaborative learning
* Discussion and reflection60
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| Aims/Goals or SWBATs (Students will be able to...* Understand the importance of gender equality in ICT and STEM
* Identify key female figures in ICT, mathematics, and computer science and their contributions
* Recognize the contributions of Leonardo da Vinci to various fields
* Develop positive attitudes towards women in these fields
* Collaborate on a group project related to ICT and STEM
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| Age group: 10-15 |
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| Time (Lesson duration): 90 minutes |
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| Materials:* Computers or tablets with internet access
* Projector and screen
* Mentimeter account
* GooseChase app
* Printed materials for group activities
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| Lead-in *What’s going to happen here to introduce your students to the topic?* Time: 10 minutesUse Mentimeter to gather students' opinions on gender equality in ICT and STEM. Questions could include:* "Do you think men and women have equal opportunities in ICT and STEM?"
* "Can you name a famous woman in ICT or STEM?"

Purpose: To introduce the topic and gauge students' initial thoughts. |
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| *What can students predict or do to get started with the lesson?* Time 10 minutesBrief discussion on the import9ance of gender equality in ICT and STEM, referencing to [GOAL 5: Achieve gender equality and empower all women and girls](https://sdgs.un.org/goals/goal5) Purpose: To set the context and objectives for the lesson. |
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| *What vocabulary could teachers focus on? What needs to be pre-taught?* Time: 10 minutesGender equality, ICT, STEM, role model, innovation, coding, software, hardware, algorithm, theorem, invention.Activity: Pre-teach these terms using examples and visuals. |
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| *What kinds of activities can students do to deepen their knowledge?* Time: 40 minutes1. GooseChase scavenger hunt where students find information about notable women in ICT, mathematics, and computer science. Based on [International #GirlsinICT Day](https://www.itu.int/women-and-girls/girls-in-ict/)
2. Group project where students create a poster or digital presentation about a female pioneer in ICT, mathematics, or computer science.
	* **Ada Lovelace**: Known as the first computer programmer.
	* **Hypatia**: An ancient mathematician and philosopher.
	* **Frances Elizabeth Allen**: A pioneer in optimizing compilers.
	* **Joan Clarke**: A cryptanalyst who worked on breaking the Enigma code.
	* …
3. Discussion on Leonardo da Vinci's contributions to various fields, including his work in anatomy, engineering, and art.

**Examples**:* + **Inventions**: Concepts for gliders, helicopters, and parachutes.
	+ **Art**: Famous works like the Mona Lisa and The Last Supper.
	+ **Science**: Studies in human anatomy and engineering.
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1. Research and presentation on **Caterina Sforza** and her contributions to alchemy and medicine.

**Purpose**: To highlight the contributions of women from **Leonardo da Vinci's** era and to show the diverse fields in which women have made significant impacts.  |
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| *What kinds of questions can students answer from the activities? What should they notice or analyze?* Time: 10 minutesQuestions:"What contributions did the women you researched make to ICT, mathematics, or computer science?""How did their work impact their respective fields?""What are some of Leonardo da Vinci's most significant inventions and artworks?"Purpose: To encourage critical thinking and analysis. |
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| *What are other follow up (or homework) activities that can be included?*Activity:Students can write a short essay on how they can contribute to gender equality in ICT and STEM.Purpose: To reinforce learning and encourage personal reflection. |
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| *Other thoughts about this lesson plan:*This expanded lesson plan aims to provide a comprehensive and engaging learning experience, highlighting the contributions of women in ICT, mathematics, and computer science, as well as the significant impact of Leonardo da Vinci on various fields.Additionally, it can be adapted to include local innovators such as Nikola Tesla, Slavoljub Penkala, and Faust Vrančić, showcasing their contributions to science and technology in Croatia. |
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