**Lesson plan**

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| Lesson title: **The importance of access to safe water** |
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| Lesson brief description: Water is essential not only to health, but also to food security, ecosystems and poverty reduction. Students will learn about the importance of access to safe water (SDG 6). They will learn it through game, by the use of Minecraft Education game: **Water Quality** |
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| Time (Lesson duration): 80 min (2 x 40 min) |
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| Methodology: (group, individual, peer assessment, brainstorming, etc…)individual, group |
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| Materials needed: computers with Minecraft installation |
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| Students’ age: 13-14 |
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| Aims/Goals or SWBATs (Students will be able to......)* explain the importance of access to safe water
* explain how they can measure the water quality
* they will learn that we can use machine learning algorithms in water quality testing and anti-pollution efforts
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| Lead-in *What’s going to happen here to introduce your students to the topic?* Time \_5 min\_* Discussion about the Sustainable Development goals
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| *What key-concepts could teachers focus on? What needs to be pre-taught?* Time \_5 min\_* The teacher should focus on the importance of access to safe water
* and the danger to health if we drink contaminated water
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| *List of activities with brief description of each one and time for each one:** The teacher explains to the students how to enter in Microsoft education library and find the world: Water Quality (5 min)
* In that world students will find themselves in a village where most of the people have been getting sick with the same symptoms. The doctors are suspecting that they are drinking contaminated water. The students need to collect water samples from the rivers around the village to create a database. (25 min)
* This database then needs to be analyzed using an artificial intelligence (AI) machine learning algorithm (15 min)
* This algorithm will then find the sources of the pollution, which will make it possible for the students to go to these locations and stop the pollution sources. (20 min )
* Lesson conclusion: (5 min) After they accomplish the goals from the game, the teacher asks questions and the students answer:
1. Why is it important for people to have a water source that is free of pollutants?
2. In this lesson, how did AI help us in cleaning up our water sources?
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| *What are other follow up (or homework) activities that can be included?** *The students should answer a quiz questions about the importance of access to safe water on QUIZIZZ*

<https://quizizz.com/embed/quiz/65856431e60605772b638e5e>* To write a short essay on what they would do to keep the water clean and safe in their immediate environment
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| *What methodology / activities are used for assessment?** Evaluation of the quizizz results
* Evaluation of students' short essays
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| Other thoughts about this lesson plan: |
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