**Lesson plan**

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| Lesson title:  Climate change: Let’s create a sustainable city |
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| Lesson brief description  Students will learn about climate change and explore sustainable practices by creating a virtual sustainable city in Minecraft. |
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| Time (Lesson duration): 120 minutes |
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| Methodology: (group, individual, peer assessment, brainstorming, etc…) |
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| Materials needed:   1. Computers or tablets with Minecraft Education Edition installed 2. Projector for demonstration 3. Worksheets and pencils 4. Whiteboard and markers 5. Reference materials on climate change and sustainability |
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| Students’ age: 8-10 years old |
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| Goals:  Students will be able to:   * learn what climate change is * know the causes of climate change * know the causes and consequences of global warming * learn about solutions to counteract climate change * know what they can do to help the climate (take responsibility) * are able to share information with others. * take urgent action to combat climate change and its impacts (Goal 13 SDG) * Work collaboratively to create a model of a sustainable city |
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| Lead-in *What’s going to happen here to introduce your students to the topic?* Time 20 min   * Show the article title and the picture sided in <https://www.timeforkids.com/g56/polar-bears-danger/> and activate students’ prior knowledge about climate change * Brainstorming: what is climate change? |
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| *What key-concepts could teachers focus on? What needs to be pre-taught?* Time 30 min  Concepts to focus on:   * Climate change * Greenhouse effect   What to pre-taught   * Sustainability * Renewable energy * Using Minecraft |
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| *List of activities with brief description of each one and time for each one:*     * Watch a YouTube video to introduce climate change: <https://www.youtube.com/watch?v=IJoAcD0oUww> or <https://www.youtube.com/watch?v=v8unGCTWUWI>. Complete the brainstorming that was created before. (10 min) * Discuss the question “What is climate?” *and if* students know the difference between weather and climate. (10 min) * Discuss the role of humans in contributing to climate change and the impact it has on the Earth. What can we do to help ‘fight’ climate change? Students work in groups and given pictures with what is ok and what should we do less to categorise them (15 min) * Greenhouse effect: watch a YouTube video about Greenhouse effect <https://www.youtube.com/watch?v=SN5-DnOHQmE&t=1s>. Discussion about what can we do to reduce the Greenhouse effect. (15 min) * Take a quiz: <https://app.quizalize.com/view/quiz/climate-change-unit-11-8383d97c-4f74-430a-8217-8dada57be385> (5 min) * Students work in groups to build a sustainable city in Minecraft <https://education.minecraft.net/de-de/lessons/global-build-challenge-2021-peace-with-nature> to use the knowledge they gained. (45 min) |
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| *What are other follow up (or homework) activities that can be included?*  They could create a video to present their sustainable city. |
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| *What methodology / activities are used for assessment?*   * Quiz (from Quizalize) and * Asses the product of the sustainable city of students using Minecraft |
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| Other thoughts about this lesson plan:  The teacher could create a scavenger hunt using Goose Chase like “Earth Day Scavenger Hunt” in <https://www.goosechase.com/game/6f4810a57cc746ec95d524349d4640f4/copy/> |
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