

**10 Lesson plans that directly address the STREAMS Education Vision and based on the Meaning of each of the S.T.R.E.A.M.S. terms. Plus three for overviews of the concept.**

**Grade Level: 3-5 (8-12 year old students).**

**Portugal – Interactideas**

**Lesson Plan 1: STREAMS Education: SCIENCE**

Lesson Title: **Science and Climate Change: How Science Can Help Our Planet**

Grade Level: 3-5 (8-12 year old students)

Lesson Duration: 60 minutes

Objectives:

1. Students will understand the impact of climate change on the planet.
2. Students will learn about the role of science in mitigating the effects of climate change.
3. Students will identify simple ways they can help reduce the carbon footprint.

Materials Needed:

- Projector and screen
- Internet access
- YouTube videos (links provided below)
- Poster paper and markers

Procedure:

Introduction (10 minutes):

1. Begin the lesson by asking students what they know about climate change. Write their responses on the board.
2. Explain to students that climate change is a significant issue affecting our planet, and it is caused by human activities like burning fossil fuels, deforestation, and pollution.
3. Introduce the lesson by telling students that they will learn how science can help address the challenges posed by climate change.

Body (40 minutes):

1. Show students the YouTube video "Climate Change Explained" by National Geographic Kids.
  - Link: <https://www.youtube.com/watch?v=AxuBLBpM0xU>
2. Discuss the video with students and ask them to share what they learned.

3. Introduce the concept of the carbon footprint and explain how it is a measure of the amount of carbon dioxide released into the atmosphere by human activities.
4. Show students the YouTube video "What is a Carbon Footprint?" by KQED.
  - Link: <https://www.youtube.com/watch?v=9I9e3x3C5-A>
5. Discuss the video with students and ask them to share their thoughts and questions.
6. Explain to students that science can help reduce the carbon footprint by developing and promoting renewable energy sources, developing more efficient transportation, and reducing waste.
7. Show students the YouTube video "5 Cool Technologies to Fight Climate Change" by SciShow Kids.
  - Link: <https://www.youtube.com/watch?v=uP6u5Dd24z0>
8. Discuss the video with students and ask them to share their thoughts on how science can help reduce the carbon footprint.

Conclusion (10 minutes):

1. Ask students to work in pairs to create a poster that lists simple ways to reduce the carbon footprint.
2. Provide students with poster paper and markers.
3. Ask students to share their posters with the class, and discuss each suggestion as a class.
4. Wrap up the lesson by reminding students that they can make a difference in the fight against climate change by making simple changes in their daily lives.

Assessment:

1. During the lesson, ask students questions related to the topic to check for understanding.
2. Assess the posters created by students and provide feedback.
3. Ask students to write a short paragraph describing one thing they learned during the lesson and how they plan to reduce their carbon footprint