

CLIMATE CHANGE LESSON PLAN - What can be done to minimise our Ecological Footprint?

For Grade 1

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Description of Activity: Learners are introduced to the importance of having plants not only for food and shelter but also to help us minimise our ecological footprint. Learners germinate seeds from a tree that will germinate relatively quickly. The learners then plant some of the seedlings and take responsibility in nurturing the trees.

This lesson could be completed over 4 30 min lessons and nurturing of the tree will be long term

Learning Area/s: Natural Science	Learning Outcomes: NS: LO1
Assessment Standard/s: AS2 & AS3: The learner is able to carry out instructions independently and shows or tells what is being done; is able to think about what has been done / found out	Subject Integration: Language, Arts and Culture, Mathematics
Background knowledge required by learners: Some understanding the human activities can put a lot of pressure on the Earth if the consequences are not taken seriously	Materials Needed: seeds of a tree that is indigenous to your area and that will germinate quickly. For example the seeds of the Coral Tree (lucky bean) Polystyrene or plastic trays, cotton wool, water, paper, crayons, yoghurt containers, organic compost

Activity Procedure:

Lesson 1: The teacher asks the learners why they think plants and trees are important for people. Give an example of a desert and, although there are some plants and animals that can survive in desert conditions, not all can and that it is a very harsh environment. Explain how important plants are in their ability to store carbon dioxide, give examples of what produces carbon dioxide, and release oxygen for us to breathe. They are like air filters. Explain that by planting trees we can help to reduce the amount of carbon dioxide in the atmosphere.

Begin the activity of germinating the seeds chosen. The learners must place each seed between two pieces of cotton wool. This is then placed on the polystyrene or plastic tray. The cotton wool is then wetted with water but not so that it starts to float in the water. Learners must monitor their seeds each day and make sure the cotton wool is always damp. It should take approximately two weeks before a root starts to emerge.

Lesson 2: Once the seed has grown a root, prepare some soil and organic compost in order to plant the seedling. Poke holes in the old yoghurt containers for the water to drain and then add the soil mixture. The seedlings must be put in a suitable place that does not receive direct sunlight. The learners must monitor the growth of their seedlings and make sure they are watered sufficiently.

Lesson 3: Once the seedling is a few centimetres in height, the learners can now plant the seedlings into the ground. Make sure you have found a suitable place in the school grounds to plant the tree/s. If you are unable to plant the tree in the school grounds then gain permission to plant the tree in a community area near to the school. Depending on where the tree/s are planted, protection from animals may be necessary in the form of a fence.

Lesson 4: Learners can draw about their experience of growing the seedling and then planting it into the ground. They must also draw their understanding of how planting a tree can help to minimise their ecological footprint

Assessment Method: Teacher assessment of learners understanding of ecological footprints and how this can be reduced