

Lesson #1: Plants, Planet, People

Movie Moment!



This video explores the important roles that plants play for life on Earth to exist. **It explores how humans and animals rely on plants, which support their own habitats - providing food, shelter and everyday materials we can find right in our own homes.**

Plants also have essential functions in natural ecosystems too - including regulating oxygen and carbon dioxide in the atmosphere through photosynthesis, preventing erosion and helping cool the planet through transpiration (releasing water). A brief overview of photosynthesis is explored, as well as foodchains and food webs.

The video concludes with a reminder about the impact natural habitats can have for the earth, through destruction and pollution. Students are reminded of the importance of plants for the health of ourselves and our planet, and not to take their presence for granted. Individual actions students can take to help plants thrive are shown.



Stop & Check!

Pause the video at this timestamp to check for your students' understanding.

- How do plants produce oxygen? [02:26]
- What are the ways that you can protect the plants around you? [05:22]

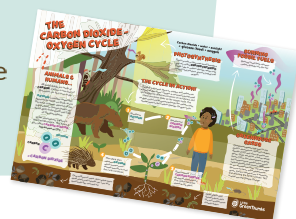
Sight Words to look out for:

- Habitats
- Shelter
- Erosion
- Organism
- Boreal Forest
- Amazon Rainforest
- Photosynthesis
- Carbon Dioxide
- Oxygen
- Food Chain
- Food Web
- Relationship

Did you know?

Plants aren't the only organisms that rely on photosynthesis - some bacteria and algae photosynthesis as well!

Explore this concept further using the Little Green Thumbs Carbon Cycle Poster, found online.



Movie Moment!

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A **Food Chain** demonstrates who eats whom in the wild. All living things - from plants to grizzly bears—need food to survive. A food chain is a linear pathway which demonstrates how energy and nutrients can flow through the ecosystem. Plants are primary producers, and the start of almost all food chains.

Food webs provide a larger, interconnected picture of the relationships and interdependence of several living things that provide food for other living things in the while. A Food Web is a non-linear representation of how energy and nutrients can flow through an ecosystem.

Everything is connected within an ecosystem, even though the roles and needs of particular animals or plants may be unseen. Because of this **interdependence**, one change can have a big influence on the species around it.

Indigenous Connections:

Interdependence between living and non-living species has been a foundation for many Indigenous worldviews in Canada. To help youth better understand these connections, look to a local author, storyteller, or Elder who might be able to provide a local context.

Exploring different representations of the circle of life can also help make these connections clearer for your students. One well-known example of this is the Medicine Wheel, a sacred rock monument important to many First Nations communities. The wheel outlines the four directions and the circle of life. ****Note that medicine wheels are not used by all First Nations communities, and their teachings should not be appropriated. Consult with your local community to see if they are in use, and do not build your own.**

Check out the *Teacher Guide* for more inspiration and information.

Science Review

You may choose to explore the following concepts further with students.

Photosynthesis is the process by which green plants use sunlight to create energy, using carbon dioxide and water. When a plant photosynthesises, oxygen is released as a byproduct of this process. Humans and animals breathe oxygen and release carbon dioxide into the air. Plants have an essential role providing the oxygen we breathe.

You would need a large greenhouse of plants to see a significant difference in oxygen in a space. However, when we refer to the Amazon rainforest as the lungs of the planet, we're not joking!

Speaking of the Amazon, the video features our hemisphere's equivalent: the **boreal forest**. This type of forest stretches across Canada and the rest of the Northern Hemisphere.

Did you know?

Canada has 30% of the world's forest, so keeping this national treasure, the boreal forest, healthy keeps the rest of the planet in good health too.

