

15 LIFE ON LAND



Goal 15: Life on Land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Terrestrial ecosystems are based on land. There are many different types of terrestrial ecosystems in the world including forests, grasslands, deserts, and tundras. These amazing places are home to a wide range of animals and organisms. The type of life that we find in these ecosystems is dependent on the temperature, the soil, and the amount of water and light available.

World leaders are taking action to protect our forests, prevent desertification, and stop biodiversity loss.

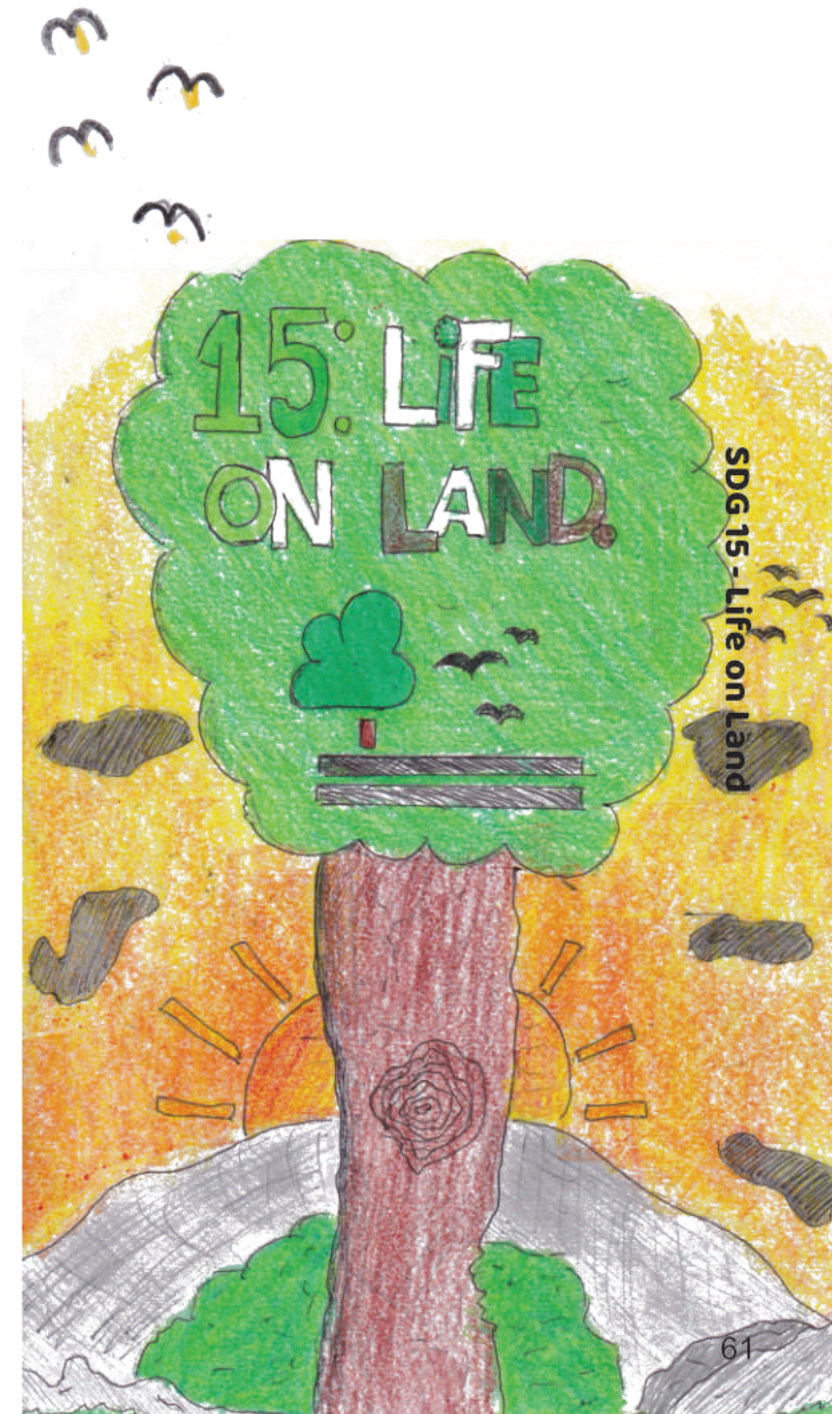
We are now going to explore the importance of healthy soil.

Soil is not dirt

Soil is formed from weathered rock, minerals, and organic materials. As each of the three types of rock –igneous, sedimentary, and metamorphic– have different minerals we can have different types of soils. Soil formation is also influenced by the presence of organisms and microorganisms that can travel in and/or on the soil. Climate also affects soil formation.

Soils have many important roles in nature. They provide plants with water and nutrients essential for growth. Soils are rich in biodiversity providing homes to many organisms and microorganisms including bacteria, fungi, protozoa, nematodes, millipedes, and beetles, to name a few. Soil is also important in capturing carbon dioxide from the atmosphere and helps provide solutions to climate change.

1. Desertification is the the process by which fertile land becomes desert. 2. Biodiversity is all the different kinds of life that live in a particular area. 3. An ecosystem is a community of organisms together with the environments in which they live.

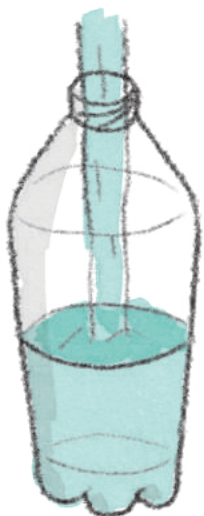


Experiment - Mud Test



What you need:

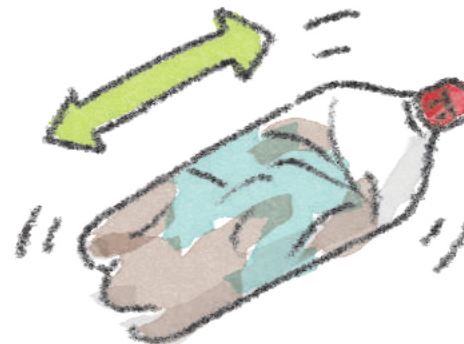
- Some soil
- A transparent bottle
- A funnel
- Water



1. Fill the bottle halfway with water (You can use the funnel for this. Just be sure to dry it before the next step).



2. Using the funnel, add a cup of soil to the bottle (If the soil gets stuck in the funnel you can use a straw to push it through).



3. Shake the bottle to mix the soil and water together. Put the cap on first to avoid making a mess.



4. Wait for the contents of the bottle to settle into the different layers.

Try to identify the different layers in the bottle and compare it to the soil your classmates used. Are there any differences?

What are your thoughts?

Have you learned something new about soil?

What would you do to ensure we protect our life on land?

What Do We Learn From This Experiment?



SDG 15 - Life on Land

Mud Test

Soil is not dirt, it is so much more, and we need to protect our soils to protect our planet.

Soil is made up of many layers that are referred to as horizons. The very top layer is the organic layer and it is composed of humus. Humus is organic material that forms as plants and animals decay. The very bottom layer of soil is the bedrock layer and it contains unweathered rock.

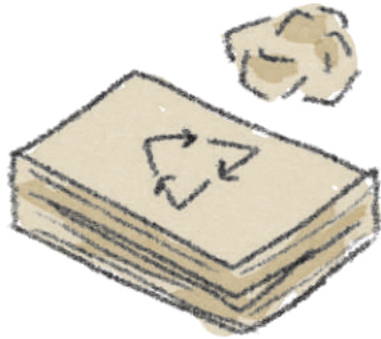
Soil horizons differ in colour and thickness. They also feel different to touch as they have different structures and textures.

There are also many different types of soil based on the different sizes of the soil particles. We can have sand-, silt- or clay-based soil. Each type of soil has unique properties.

Did you see different layers in your mud test? What colours were the different layers? Are some layers thicker than others? Explore the different types of soil a little further in your own time.



What Can We Do?



Recycle used paper.



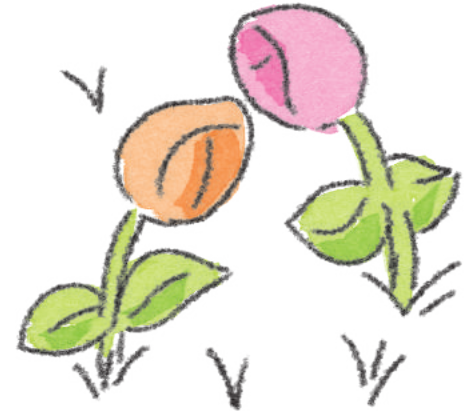
Share what you learn with others and help them to become eco-friendly.

SDG 15 is all about protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably managing forests, combatting desertification, and halting and reversing land degradation and halting biodiversity loss.

It can be hard to know the things we can do in our lives to make a difference, but by following some of the tips on this page we can start making the world better for everyone. You may not think that little changes will make a difference, but everyone making little changes adds up to big change.



Start a nature club in school to explore the local environment and learn how to protect it.



Learn about the plants in the school yard.



Encourage your family to support projects that help to restore and regenerate lands.