

PLANET DIVERSITY

**STUDY THE LIFE FOUND IN A SMALL PLOT OF LAND, PRETENDING IT IS ANOTHER PLANET.
DOCUMENT AND SHARE FINDINGS**

Third Grade Next Generation Science Standards Met:

ESS2.E Biogeology

LS2.A Interdependent relationships in ecosystems

LS2.C Ecosystem dynamics, functioning and resilience

LS2.D Social interactions and group behavior in organisms

- 3-LS2-1

LS3.B Variation of traits

- 3-LS3-2

LS4.C Adaptation

- 3-LS4-2, 3-LS4-3

LS4.D Biodiversity and humans

- 3-LS4-4

Pre-Trip Information

[Biodiversity Video](#)

[Biodiversity Information](#)

Materials:

- Plot frames (to designate micro-habitat area)
- Documentation sheet & pencils

Objectives:

- Investigate the diversity of plants and animals in a small plot of land (a planet)
- Document and compare data
- Understand the value of a diversity of ecosystems and life forms

Introduction:

Explain how **biodiversity** is the interaction of living and nonliving components like air, water, climate and environment. Large areas such as forests are **ecosystems** that contain numerous habitats that support diverse populations of **organisms**. **Populations** of organisms show variations in size and structure based on their **adaptation** to their **habitats**.

Activity:

- Divide students into pairs
- Give each pair a plot frame, documentation sheet and pencils

Explain to the students that they are teams of scientists that will use windows to look closely at previously unexplored planets. Once they placed their window on a plot of land it is their job to observe and describe in detail what they see through their window and to get to know their planet as well as they can.

Students should use their documentation sheet to record their findings and draw examples of what they see and gather as much information as they can to report back to their home planet. They can even name their planet!

Students should leave their windows in place, come back together and each pair should join up with another pair and they will each take the other pair to their planet and explain what they have found.

Bring the group back together and collect the windows. Share as a group the differences they each found on their “planets” and discuss how diverse the earth is even in a shared common space such as a forest.

Take the documentation sheets back to class.

Post activity: (to be done in class after trip)

- Have students write up their findings of their microhabitat (planet) as if they are reporting to the head scientist of expedition.
- Have students compare their ‘planets’ and conclude which ‘planets’ (microhabitats) support the most plant and animal life.
 - What about these ‘planets’ makes them able to support so much life?
 - What did the ‘planets’ that did not have support life lack?