

S3L2: Interdependence/Pollution/Conservation

Dates: 8/17 – 10/29

Key Terms

Pollution²

Air pollution²

Land pollution²

Water pollution²

Resources²

Recycle²

Reduce²

Reuse²

Renewable Resource³

Nonrenewable Resource³

Natural Resource²

Biodegradable³

Non-biodegradable³

Habitats²

Environment²

Aerosol²

Ozone layer²

Littering²

Land¹

Conservation²

Acid rain²

Adaptation²

Survive²

Trait²

Framework for Teaching:

Students Will Be Able To:

1. Classify different types of pollution using real world examples.
2. Compare and contrast different types of pollution
3. Explain the relationship between an ecosystem and pollution.
4. Describe the cause and effect relationship between pollution and survival of organisms.
5. Compare and contrast conservation and recycling.
6. Describe the relationship between recycling and conservation.
7. Define resources and apply the three R's (Recycle, Reduce, and Reuse) to them.
8. Compare and contrast renewable and non-renewable resources.

For the teacher to know for their own understanding and to avoid misconceptions:

1. Natural resources are materials that are used by living things that can be found in nature. Natural resources can be food (i.e. fish, fruits, etc.).
2. Renewable resources can be replaced within a lifetime. Non-renewable resources take multiple lifetimes and must therefore be conserved.

3. Use of land without responsibility can cause many issues in the environment. This includes farming (soil nutrients must have time to renew).
4. Make sure to differentiate between all of the conservation strategies as conservation is specific to needs.

Activities (Suggestions)

- ✓ Oil Spill - The pollution part of this lab addresses this unit. There is a cleanup component that allows for an engineering design challenge.
- ✓ Letter Writing: Have students write a letter to a conservation organization or a politician about their concerns for the environment

Notes:

Students should be transitioning into writing longer explanations and lab reports. Have students write about their observations. This unit lend itself to different types of writing (i.e. narrative, descriptive, persuasive, and expository). This unit also appeals to the social justice paradigm. Cause and effect can be applied to most of this unit as well. Make sure that you tie the pollution unit to the habitat unit so that students get the environmental stewardship piece that is clearly intended.