25SCHOOLS
FREE LEARNING NOTES FOR ZAMBIA

FORM 1

Geography

Natural resources

Lesson notes for learners · Competence-Based Curriculum

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Your desk, your clothes and the nshima and bread you eat all begin in nature. Natural resources are the materials that come from nature, such as water, air, trees and minerals, and they are essential for life. In this note you learn what natural resources are, how they are grouped, how people find them and why using them carefully matters in Zambia.

AFTER THESE NOTES YOU SHOULD BE ABLE TO

- Say what natural resources are and give examples
- Tell renewable from non-renewable resources
- Name the main groups of natural resources and the methods used to identify them
- Explain why identifying natural resources is important and what makes it difficult
- Describe ways of avoiding the depletion of natural resources

KEY WORDS

natural resource	a material found in nature that people use to live and grow
renewable resource	a resource that replenishes naturally and can be used again and again, such as sunlight, wind and water
non-renewable resource	a resource that is finite and cannot be replaced after use, such as fossil fuels and minerals
sustainable management	using resources wisely so that they last for future generations
depletion	using up a resource until little or none is left
identifying natural resources	understanding the types of resources in nature and the methods used to locate, classify and evaluate them

1 What natural resources are

Natural resources are things found in nature that people use to live and grow. They include water, air, soil, trees, wildlife and minerals. People use them to build homes, make electricity and grow food.

Some natural resources are living, such as plants and animals. Others are non-living, such as rocks, soil and water. Responsible use means avoiding waste, protecting the environment and using resources wisely so that they last for future generations.

As Zambia's population grows, more resources are needed for food, energy and development. This puts pressure on natural resources, so careful management is necessary. Actions such as replanting trees, protecting water sources and reducing pollution support both the people of today and those of the future.

Kind	Examples
Living	Plants, trees, animals, wildlife
Non-living	Rocks, soil, water

Figure 1. Living and non-living natural resources

2 Renewable and non-renewable resources

There are two types of natural resources: renewable and non-renewable.

Renewable resources replenish naturally and can be used again and again. Sunlight, wind, water, land, wildlife and forests are examples. Non-renewable resources are finite. They take a very long time to form and cannot be replaced after use, so they can run out. Oil, coal and other fossil fuels and minerals are examples.

Resources can also be grouped by what they are. Water resources include rivers, lakes, groundwater and rainwater. Forest resources include trees, medicinal plants and bamboo. Energy resources include solar, wind, hydro, geothermal and biomass. Soil and agricultural resources are another group. Fossil fuels include coal, oil and natural gas. Minerals and metals include copper and gold.

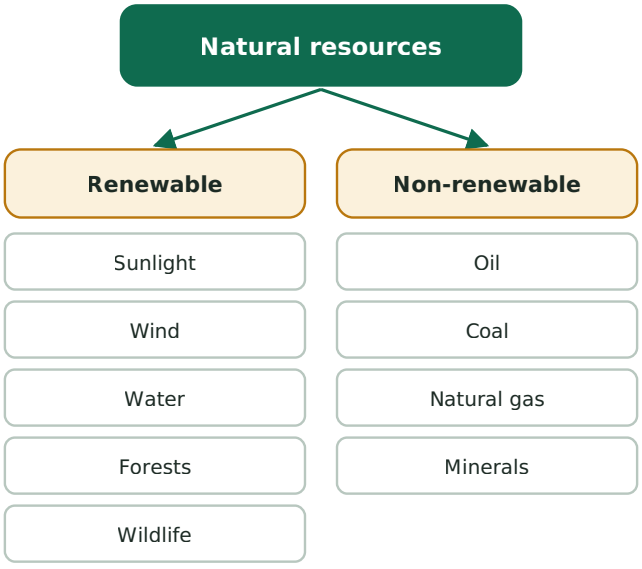

Figure 2. Renewable and non-renewable resources with examples

3 Identifying natural resources

Identifying natural resources means understanding the types of resources in nature and the methods used to locate, classify and evaluate them.

Several methods are used: geological surveys, remote sensing, exploratory drilling, sampling and analysis, field surveys and laboratory analysis. Laboratory analysis confirms the composition and quality of a resource.

4 Why identification matters and what makes it hard

Identifying natural resources is important for three reasons. It brings economic benefits through extraction and trade. It supports sustainable management, because knowing where resources are, how easy they are to reach and their quality helps people plan their use. It supports environmental conservation, because it helps reduce the harm that extraction and use can cause.

There are also challenges. Technological limitations make it hard to reach remote or hard-to-reach areas. Lack of knowledge slows the work. Social and economic factors, such as local communities, government policies and market demand, also play a part.

5 Avoiding depletion

Depletion happens when a resource is used up faster than it can be replaced. Learners can discuss how some resources could be depleted and explain the dangers of depleting natural resources.

Ways of avoiding depletion include displaying posters that teach others how to avoid it and planting trees to avoid depletion of forests. Using resources wisely, avoiding waste and protecting the environment all help resources last.

TRY THIS

Walk around the school surroundings with your exercise book and list as many natural resources as you can see. Sort your list into living and non-living, then into renewable and non-renewable, and share it with your group.

REMEMBER

- Natural resources are things found in nature that people use to live and grow.
- Renewable resources replenish naturally, while non-renewable resources are finite and can run out.
- Natural resources include water, forests, energy, soil, fossil fuels and minerals.
- Geological surveys, remote sensing, exploratory drilling, sampling, field surveys and laboratory analysis are used to identify resources.
- Identifying resources brings economic benefits, supports sustainable management and helps conservation.
- Replanting trees, protecting water sources and reducing pollution help resources last.

? Check yourself

1. What is a natural resource.
2. Name two renewable and two non-renewable resources.
3. Name three methods used to identify natural resources.
4. Give two reasons why identifying natural resources is important.
5. A group of learners at a school near Feira walks around the school grounds and lists a stream, some trees, soil, stones and a few goats. (a) Sort the items into living and non-living resources. (b) Name one renewable resource on the list. (c) Say why careful use of the trees matters.
6. A community in Zambia notices that the population is growing and that more wood, water and land are being used for food and energy. (a) What happens to natural resources as the population grows. (b) Name two actions the community can take. (c) Say why these actions help future generations.
7. A teacher near Feira says that oil and copper can run out but that sunlight and wind will not. (a) Do you agree. (b) Name the type of resource oil and copper belong to. (c) Explain why they can run out.

ANSWERS

1. A thing found in nature that people use to live and grow.
2. Renewable: any two of sunlight, wind, water, forests, wildlife. Non-renewable: any two of oil, coal, natural gas, minerals.
3. Any three of geological surveys, remote sensing, exploratory drilling, sampling and analysis, field surveys, laboratory analysis.
4. Any two of economic benefits, sustainable management and environmental conservation.
5. (a) Living: trees and goats. Non-living: the stream, soil and stones. (b) Any one of the stream, trees or goats. (c) Trees are renewable only if they are replaced, so replanting and wise use help them last for future generations.
6. (a) More resources are needed, which puts pressure on them. (b) Any two of replanting trees, protecting water sources and reducing pollution. (c) They keep resources and the environment healthy so that future generations can also meet their needs.
7. (a) Yes. (b) Non-renewable resources. (c) They are finite and cannot be replaced after use.

Written by 25Schools to follow the Form 1 Geography syllabus of the Zambian competence-based curriculum. Free for learners to read, download and share. More notes and quizzes at 25schools.com.