



Lesson Time: 15–20 minutes

Here Today, Gone Tomorrow

Objectives & Outcomes

Lesson Objectives: Students will learn some examples of renewable and nonrenewable resources and the difference between them.

Lesson Outcomes: *Students will be able to...*

- classify everyday items as renewable or nonrenewable
- identify environmental resources as renewable or nonrenewable

Subject Area Connection: Science

Background

The Earth provides us with many resources. Some of these like air, water, and the sun are renewable but others are in limited supply such as oil and coal. In this lesson, students will first think about items in their daily lives that they can use again (renewable) and items that are generally for one-time use (nonrenewable). Students will be introduced to thinking about environmental resources as either renewable or nonrenewable. Students will be challenged to answer the question: Is there an unlimited supply of this resource?

“Students will be **challenged to answer** the question: **Is there an unlimited supply of this resource?**”

Getting Ready

Teacher Preparation: To prepare for this lesson, write each term on an index card. Terms include: cloth napkin, water bottle, cloth grocery bag, library book, silverware, juice box, paper envelope, food wrappers, paper napkin, disposable diapers.

Materials Required:

- index cards

Introduction and Modeling

Begin by talking to students about things we use every day. What items do we use over and over and what items do we throw away? Tell students that they are going to classify things as renewable (we can use them again and they do not “run out”) or nonrenewable (we only use them once and they can “run out”). Introduce the idea of items in nature that humans use every day such as gas or electricity in the home. Are these resources renewable or nonrenewable?

Key Vocabulary

renewable resource: items in unlimited supply or ones that can be easily replenished.

nonrenewable resource: items in limited supply that cannot be easily replenished.

Procedure

1. Put students into pairs and give each pair an index card.
2. Ask students to discuss with their partner whether or not the item is renewable or nonrenewable.
3. Students will put their card in a pile based on their decision.
4. Read the cards aloud to the class, beginning with the renewable group and then moving on to the nonrenewable items. Make corrections as needed.
5. Read the descriptor sentences to the class one at a time.* Students will identify the resource described in the sentence and then will discuss as a class whether the resource is renewable or nonrenewable.

*Descriptor sentences to use with the students:

1. This resource is a liquid that comes from the ground. It is processed into a product that we put in our cars to make them run. The car burns the liquid to make the engine go. What am I? Am I renewable or nonrenewable? (Answer: gasoline; nonrenewable)
2. Paper comes from this resource. What am I? Am I renewable or nonrenewable? (Answer: wood; renewable but trees take several years to reach maturity)
3. This resource can turn a pinwheel. What am I? Am I renewable or nonrenewable? (Answer: wind; renewable)
4. Some people put panels on their roofs to collect this resource and use it to heat their home. What am I? Am I renewable or nonrenewable? (Answer: sun; renewable)
5. Soda cans are made from this resource. What am I? Am I renewable or nonrenewable? (Answer: aluminum; nonrenewable but very recyclable)

Discussion Questions

- What happens to nonrenewable resources over time?
- Paper is something many students use each day. Is paper a renewable or nonrenewable resource? Discuss the answer.
- Oil is a nonrenewable resource. Why is it called a "fossil" fuel?

Evaluation

Ask students to look around the classroom and list 6 items, what each is made from, and whether that resource is renewable or nonrenewable.

Tips for Tailoring this Lesson

For Higher Grade Levels

- Challenge students to write their own sentences describing a natural resource and have them share their sentences with the class.
- Ask students to brainstorm a list of renewable and nonrenewable resources.

For Lower Grade Levels

- Ask students to classify items as a whole class rather than in pairs.
- Show students the physical items rather than writing them down on an index card.

Alignment to Standards and Frameworks

Common Core State Standards:

College & Career Readiness

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Anchor Standards for Language

CCRA.L.6 Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Anchor Standards for Reading

CCRA.R.7 Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

Next Generation Science Standards

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4-ESS3-1

Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. *[Clarification Statement: Examples of design solutions to weather-related hazards could include barriers to prevent flooding, wind resistant roofs, and lightning rods.]*