

Energy Choice Clues

Read how resource choices meet needs and affect places.

4-ESS3-1 "Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment. Clarification Statement: Examples of renewable energy resources could include wind energy..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each energy resource. Circle each use, box each environmental effect, and draw a line from each effect to the resource or group of resources connected to it.

Power From Nature

- ① People use energy every day to light rooms, move buses, and run machines. Energy sources come from natural resources, materials or forces found in nature. Sunlight can be changed into electricity by solar panels. Wind turns turbine blades to make electricity. These resources are renewable because nature replaces them quickly. Using solar panels and wind turbines does not burn fuel, so it can avoid some air pollution.
- ② Water stored behind a dam can also turn turbines to make electricity. This is renewable energy because moving water is renewed by the water cycle. However, a dam can flood land upstream and block a river. Fish and other animals may lose habitat or have trouble moving through the river. People can add fish passages and study dam locations to reduce harm to habitats.
- ③ Coal, oil, and natural gas are fossil fuels. They are nonrenewable because they take millions of years to form. Burning these fuels can provide heat, make electricity, and power cars, but it releases air pollution. Uranium is another nonrenewable natural resource. Its fissile material can be used in nuclear power plants to make electricity. Energy choices can meet people's needs while also changing air, water, land, and animal habitats.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What do solar panels and wind turbines make, and why are sunlight and wind renewable resources?

2 Describe one way a dam can affect animal habitat. What two actions in the passage can reduce harm?

3 Why are coal, oil, and natural gas nonrenewable? Give two uses for fossil fuels from the passage.

4 Compare fossil fuels and water behind dams. What use do they share, and what different environmental effect can each have?

3 YOUR TURN _____ Your own words

Make a four-sentence Energy Choice Note about sunlight, wind, water behind a dam, or fossil fuels. Name its renewable or nonrenewable type, tell one use, describe one environmental effect or benefit, and compare it with a different resource from the passage.

PART 1 • READ AND MARK

Underline each energy resource. Circle each use, box each environmental effect, and draw a line from each effect to the resource or group of resources connected to it. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What do solar panels and wind turbines make, and why are sunlight and wind renewable resources?	They make electricity. Sunlight and wind are renewable because nature replaces them quickly.
2	Describe one way a dam can affect animal habitat. What two actions in the passage can reduce harm?	A dam can flood land or block a river, causing animals to lose habitat or have trouble moving. People can add fish passages and study dam locations.
3	Why are coal, oil, and natural gas nonrenewable? Give two uses for fossil fuels from the passage.	They take millions of years to form. Fossil fuels can provide heat, make electricity, or power cars.
4	Compare fossil fuels and water behind dams. What use do they share, and what different environmental effect can each have?	Both can make electricity. Burning fossil fuels releases air pollution, while a dam can flood land or block a river and harm habitats.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Fossil fuels are nonrenewable resources. People burn them for heat. Burning them releases air pollution. Unlike fossil fuels, water behind a dam is renewable and can make electricity, but a dam can flood land and block a river.

Accept notes that accurately name the resource type, a passage-supported use, and an environmental effect or benefit. Accept supported comparisons, including solar and wind avoiding some air pollution, dams affecting habitats, and fossil fuels releasing air pollution.