

Energy—How Things Work

A. Choose the correct option.

1. What is the primary source of energy for all living things?

a. electricity

c. food

b. fuel

d. wind

2. Which of these is a vehicle fuel?

a. piped natural gas

b. petrol

c. air

d. sunlight

3. Which traditional house design helps to keep houses cool in summer and warm in winter?

a. houses with large windows and thin walls

b. houses with small windows and thick walls

c. houses made of glass

d. houses painted black

4. What type of bulb is mentioned as being energy-efficient?

a. incandescent bulb

b. fluorescent bulb

c. LED bulb

d. halogen bulb

5. What type of energy do mills called 'gharaats' in hilly areas use to grind grains?

a. wind energy

b. solar energy

c. energy of flowing water

d. electrical energy

B. Fill in the blanks.

1. Energy is what makes things move, light up, produce sound, do work, and change

2. When air rushes out of a balloon, it generates

3. Plucking rubber bands on a box produces energy.

4. Cooking gas is a

5. Electricity generated using natural sources like wind, water, and the Sun is called energy.

C. Match each type of energy with its correct example.

Type of energy	Example
1. energy from food	a. air coming out of a balloon
2. stored energy	b. a bird flying
3. movement energy	c. sunlight falling on an object
4. heat energy	d. a battery-powered torch glowing

D. Write (T) for true and (F) for false statements.

1. Our brain does not use energy when we are sleeping.
2. Burning wood or coal for fuel causes pollution.
3. If you see a broken wire or something wrong with electricity, you should try to fix it yourself.
4. Most of the electricity we use comes from burning fuels like coal.
5. Ancient ships used massive sails to capture water energy to travel.

E. Circle the odd one out.

1. fan, bulb, heater, book
2. coal, sun, wind, water

F. Answer the questions in one word or one sentence.

1. What causes things to move, light up, or change temperature (either getting warm or cool)?
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2. Which airport in Kerala is powered entirely by solar energy?
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3. What is meant by 'energy efficiency'?
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G. Answer the questions.

1. Describe how the movement of air generates energy.

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2. Explain why ancient ships had massive sails.

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3. List two rules to use electricity safely at home and in school.

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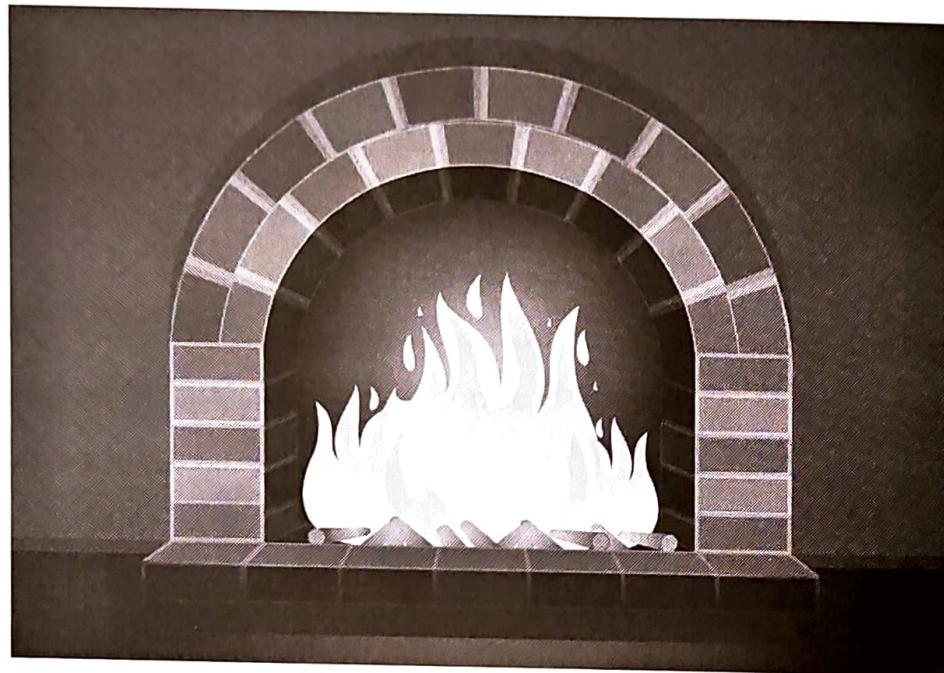
4. Explain how food and fuel are both essential sources of energy for different things. Give examples of how each is used to make things work or move.

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5. Compare electricity generated from burning coal to electricity generated from natural sources like the Sun, wind, and water. Discuss their impact on the environment.

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H. Look at the picture and answer the following questions.



1. What type of fuel is being used in the picture?

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2. Why should we be careful while using this fuel?

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3. State two more uses of this fuel.

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Challenger

1. Walk around in your house and identify five different things that use different forms of energy (for example: movement, heat, light, and sound energy). For each, name the device, the type of energy it primarily uses, and the source of energy.

Device	Type of energy	Source of energy

2. Imagine your home has no electricity for a day. How would you use sunlight for everyday activities like drying clothes, heating water, or cooking food?

3. Do research on how energy was traditionally generated and used before electricity and fuels came into use. Also, mention an interesting example.