SCIENCE

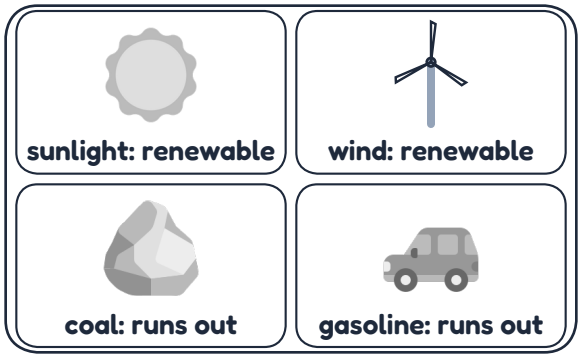
# Renewable and nonrenewable energy

Name _____ Date _____

**I can sort energy sources into renewable and nonrenewable.**

## 1 How it works

We use energy sources to make electricity and to run cars and homes. Renewable sources, like sunlight, wind and moving water, will not run out. Nonrenewable sources, like coal, oil and natural gas, took millions of years to form underground, so once we use them up they are gone. Burning them can also pollute the air, so saving energy helps the planet.




## 2 Renewable or nonrenewable? Circle one.



**wind**

renewable nonrenewable



**trees (planted again)**

renewable nonrenewable



**coal**

renewable nonrenewable



**natural gas**

renewable nonrenewable



**sunlight**

renewable nonrenewable



**oil and gasoline**

renewable nonrenewable

**How did I do?** ☆ ☆ ☆

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# Saving energy

Name _____ Date _____

I can choose ways to save energy.

## 1 Which saves energy? Circle it.

| | | |
|---|---|---|
| 1. | leave the lights on | turn off the lights |
| 2. | walk or bike to school | drive a short way |
| 3. | dry clothes on a line | use the dryer every time |
| 4. | stand with the fridge open | close the fridge quickly |

## 2 Fill in the blanks

Use the words in the box.

out | electricity | renewable | saves

1. Energy from the sun and wind is _____.
2. Coal and oil will run _____ one day.
3. Wind turbines make _____.
4. Turning off lights _____ energy.

How did I do? ☆ ☆ ☆

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# Think like a scientist

Name _____ Date _____

**I can explain the difference between renewable and nonrenewable energy.**

## 1 Think about it

1. Why is sunlight called renewable? _____
2. Why save coal and oil? _____
3. Where would a wind turbine work best? _____
4. Name one way your family saves energy. _____

## 2 True or false? Circle it.

| | | |
|---|---|---|
| **1. Turning off lights saves energy.** | **true** | **false** |
| **2. Sunlight will not run out.** | **true** | **false** |
| **3. Wind turbines make electricity.** | **true** | **false** |
| **4. Coal is a renewable resource.** | **true** | **false** |
| **5. Oil can be made again in a few days.** | **true** | **false** |

## 3 Design a house that gets its energy from the sun and the wind. Label it.

**How did I do?** ☆ ☆ ☆

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# Try it: the energy audit

Name _____ Date _____

**I can find ways to save energy at home or at school.**

## 1 You need

- a clipboard
- a pencil
- a partner
- a home or a school
- 20 minutes

## 2 What to do

1. Visit each room with your partner.
2. Count the lights that are on in empty rooms.
3. Count the things left plugged in or on standby.
4. Write one way to save energy in each room.

## 3 I predict

Which room will waste the most energy?

_____

_____

## 4 What I see

| Room | Lights or devices left on | How to save |
|---|---|---|
| kitchen | | |
| classroom | | |
| bedroom | | |
| living room | | |

**How did I do?** ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

# Answer key: renewable and nonrenewable energy

## 1 Page 1

Answers: 1) wind: renewable; 2) trees (planted again): renewable; 3) coal: nonrenewable; 4) natural gas: nonrenewable; 5) sunlight: renewable; 6) oil and gasoline: nonrenewable.

## 2 Page 2

Saves energy: 1) turn off the lights; 2) walk or bike to school; 3) dry clothes on a line; 4) close the fridge quickly.

Blanks: 1) renewable; 2) out; 3) electricity; 4) saves.

## 3 Page 3

Think: 1) It will not run out; 2) They take millions of years to form; 3) Somewhere windy, like a hill or the coast; 4) Answers will vary.

True or false: 1) true; 2) true; 3) true; 4) false; 5) false.

Drawing: answers will vary. Look for solar panels on the roof and a wind turbine, labeled.

## 4 Page 4: Try it!

Most audits find lights on in empty rooms and chargers, TVs or computers left on standby. Simple fixes save energy every day: turn lights off when leaving, unplug chargers, close the fridge quickly and dry clothes on a line. Saving energy means less coal, oil and gas is burned.

## 5 Teaching tip

Ask children to count the lights and screens left on in empty rooms for one day. Turning the count into a class goal makes saving energy feel real.

**Safety: look but do not touch plugs or sockets. Ask an adult to unplug anything.**



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