

## Exercise 1

## Vocabulary and Materials

Match the start of the sentences in column A to the end of the sentence in column B to make statements about energy.

## Column A

1. Energy can be ...
2. Energy is used by ...
3. Fossil fuels are ...
4. The sun is the source of ...
5. Renewable energy resources ...
6. The energy stored in fossil fuels ...
7. There are different types of energy ...
8. When we heat water ...
9. A battery is a store of ...
10. Metals are ...

## Column B

- a) ... most of the energy on our planet.
- b) ... good conductors of thermal energy.
- c) ... such as kinetic, chemical and thermal energy.
- d) ... stored or transferred.
- e) ... we use energy.
- f) ... will not run out.
- g) ... non-renewable stores of energy.
- h) ... chemical energy.
- i) ... originally came from sunlight.
- j) ... plants and animals to grow.

## Exercise 2

## Reading and Writing

Read the text about energy and complete it using the words in the box.

use	convert	cook	energy	light	move
non-renewable	power	renewable	sources	warm	

(0) Energy is all around us and we use it for many things in our lives. We use energy to (1) \_\_\_\_\_ our cities, to (2) \_\_\_\_\_ our cars, to (3) \_\_\_\_\_ our houses, to (4) \_\_\_\_\_ our food, to make our TV and computer work. When we (5) \_\_\_\_\_ we are using energy. When we eat, our bodies (6) \_\_\_\_\_ the food into energy. When we run or walk or play games we (7) \_\_\_\_\_ energy in our bodies. Energy is so important to us, without it we would not be alive. There are many different (8) \_\_\_\_\_ of energy. Some, like wind or sunlight, are (9) \_\_\_\_\_, but others, such as coal or oil, are (10) \_\_\_\_\_ (or at least it takes millions of years for them to be replenished). We need to be careful how we use our energy and think of ways of saving it.

**Work in groups and choose one of the two activities below.**

Either design an energy survey to ask your classmates

i.e. How is your house heated?

Do you switch the lights off when you leave a room? etc

Or, design an energy project.

i.e. a poster showing renewable and non-renewable energy sources.

a project looking at solar power.

Use the internet to help you.

**Learning Objectives**

Pupils revise and learn about concepts connected to energy.

**Content summary**

First of all pupils try to complete sentences that contain information about various aspects connected to energy. They then complete a short text before either designing and conducting a survey or carrying out a project.

**Skills**

Reading, speaking, writing

**Grammar**

Sentence syntax

**Vocabulary**

*fossil fuels, (non-) renewable, store, conductors, transfer, kinetic, thermal, convert, sunlight, replenish, sources.*

**Time needed**

45–120 minutes

**Age group**

9–14

**Materials needed**

Optional - strips of paper, pens and scissors

## Practicalities

For the survey or project work access to the internet would be useful.

## Procedure

1. On the board write up the word *Energy*.
2. Brainstorm ideas and write these up on the board - this can either be done as a whole class or in small groups.
3. Explain that you are going to give the pupils a set of half sentences. They need to match the start of each sentence to the correct ending.
4. Either hand out the worksheet and have students do exercise 1 or cut up the sentences on the worksheet and follow the procedure on the Science Museum handout.
5. Whichever approach you use, monitor and help where necessary.
6. Next, get pupils to do exercise 2. Encourage them to work in pairs.
7. Monitor before checking the answers as a class.
8. Put pupils into small groups and have them decide whether to design and carry out a survey or to do a project.

## Links to everyday life

Both the survey and project options give pupils a chance to link the concepts of energy to things around them either in their home or at school.

## Extra Links

The following website has some nice material in terms of information and activities.

<http://www.eia.doe.gov/kids/>

**Energy Pairs**

**Exercise 1**

1d 2j 3g 4a 5f 6i 7c 8e 9h 10b

**Exercise 2**

- |          |                   |
|----------|-------------------|
| 1) light | 6) convert        |
| 2) power | 7) use            |
| 3) warm  | 8) sources        |
| 4) cook  | 9) renewable      |
| 5) move  | 10) non-renewable |