

Teacher's Resources

Teaching notes · Worksheets



CONTENTS

NATURAL SCIENCE

- Energy and matter
- The environment
- Sustainable development

LANGUAGE FOR LEARNING

- **Text types:** Non-fiction texts
- **Ask and answer** using evidence
- **Description** of cause and effect

LANGUAGE OF LEARNING

- **Nouns:** atom, coal, dam, electricity, energy, environment, fossil fuel, gas, heat, hydropower, light, microwave, oil, solar, sound, source, steam, sunlight, turbine, vibration, wave, wind, windmill
- **Adjectives:** cheap, clean, colourless, extreme, geothermal, gravitational, healthy, huge, non-renewable, nuclear, odourless, plentiful, powerful, radioactive, renewable, safe, terrible, thermal, tiny, toxic
- **Verbs:** break down, break up, breathe, change, charge, convert, crush, fly, generate, hear, listen, move, pollute, power, prevent, protect, pull, pump, release, run, run out, store, supply, transform, warm, waste

READING ROUTE

Before reading:

Encourage the children to predict what the book is about. Show them the cover and ask: *What do you think energy is?* Write their suggestions on the board. Tell the children they will review their ideas after they have finished reading. The vocabulary worksheet can be used to introduce the book. The children will learn or revise vocabulary before they start reading, which will help them to understand the content and answer your questions.

During the reading:

Guide the children by asking questions: *How does energy affect our daily lives? What would a day without energy be like?* Have them explain their responses to create discussion and debate.

After reading:

Review the children's predictions to compare what they know having read the book. Then they can complete the graphic organiser by comparing the different types of energy. The vocabulary worksheet and picture dictionary can be used after reading to practise the new vocabulary. Finally, give the children the reading comprehension test (Advanced or Basic level) to make sure they have understood what they have read.

WORKSHEETS**1. Vocabulary sheet**

This worksheet can be used before or after reading the book to practise and learn new words.

2. Graphic organiser

For individual or pair/group work. The children complete the graphic organiser to help them analyse the main types of energy. Then they can share ideas with the whole class.

3. Two reading comprehension tests

Advanced (test A) and Basic (test B) levels. These can be used in class to assess the children's reading comprehension skills.

4. Picture dictionary

Use the picture dictionary to help you introduce and explain the content. The children can complete it using the words provided in the box.

ANSWER KEY**Vocabulary sheet****1. Write the sources of energy in the boxes.**

Non-renewable: coal, oil, gas

Renewable: Sun, wind, water

2. Unscramble the letters to find the hidden word.

- | | |
|----------------|---------------|
| 1. Electricity | 2. Geothermal |
| 3. Turbine | 4. Light |
| 5. Sound | 6. Gravity |

**Reading comprehension
Test B (basic)****1. Circle the correct answer.**

1. b 2. a 3. c 4. c

2. Circle TRUE or FALSE.

- | | | |
|----------|----------|---------|
| 1. TRUE | 2. FALSE | 3. TRUE |
| 4. FALSE | 5. TRUE | |

**Reading comprehension
Test A (advanced)****1. Answer the questions.**

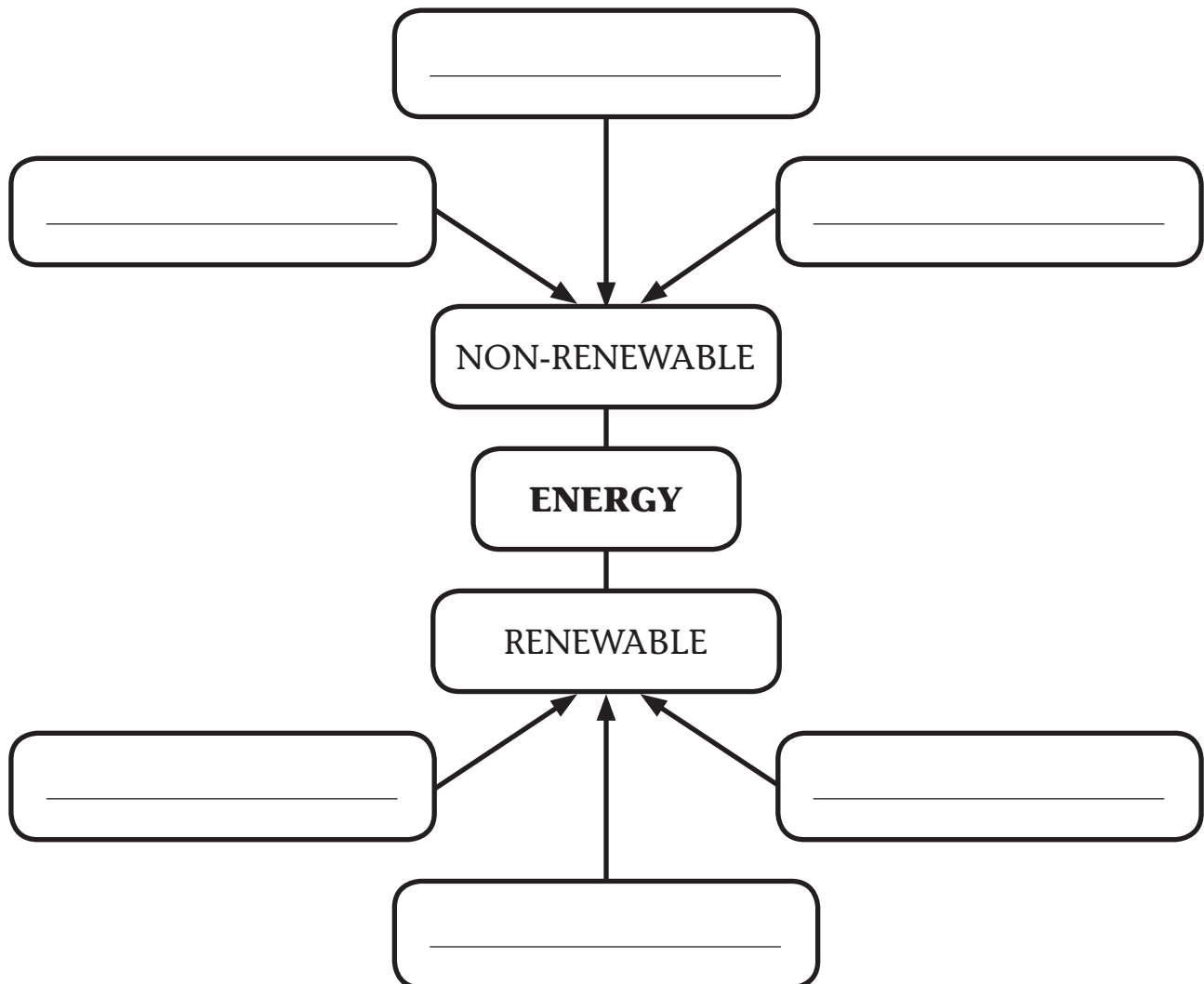
- Energy comes in many forms including light, electrical, sound, gravitational, heat (thermal) and nuclear energy. We can obtain energy from renewable sources and non-renewable sources.
- It is a clean and renewable source that produces energy from the wind power.
- Because toxic radioactive material is also produced, which is not healthy to humans and the environment.
- Nuclear fusion happens when atoms are combined to make a larger atom. This releases energy. The Sun uses a type of nuclear fusion.

2. Complete the sentences using these verbs.

- | | |
|-------------|------------|
| 1. generate | 2. pollute |
| 3. heat | 4. convert |

Name: _____

Date: _____

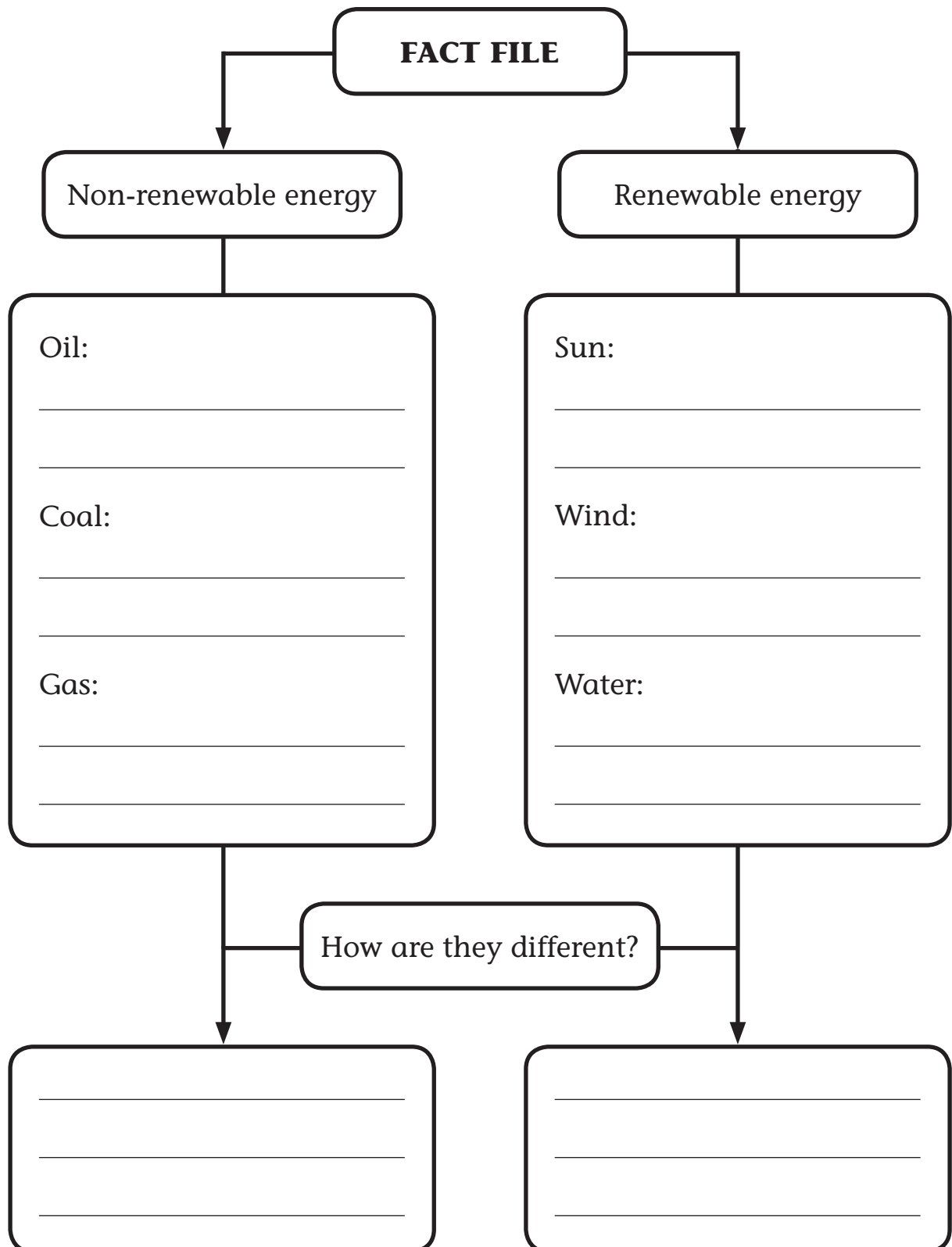
1 Write the sources of energy in the boxes.

2 Unscramble the letters to find the hidden word.

1. CTRLLEEICYIT _____
2. LHTAEOGERM _____
3. ETRUIBN _____
4. GILTH _____
5. DUNOS _____
6. VITRAGY _____

Name: _____

Date: _____

- 1** Read, then write some information about the different sources of energy.



Name: _____

Date: _____

1 Circle the correct answer.

1. Fireworks generate three forms of energy...
a. sound, light and nuclear b. sound, light and thermal c. sound, light and wind
2. Non-renewable sources of energy...
a. will run out in the future b. will not run out in the future c. can be replaced
3. Renewable sources of energy...
a. will run out b. are dangerous c. are important for the environment
4. In the future...
a. the Sun will not produce energy b. it will be impossible to get energy from space c. we will be able to get energy from space

2 Circle TRUE or FALSE.

- | | | |
|--|------|-------|
| 1. Gravitational energy is what pulls you to the ground. | TRUE | FALSE |
| 2. We do not use energy when we are sleeping. | TRUE | FALSE |
| 3. Airplanes can fly with solar panels. | TRUE | FALSE |
| 4. Portugal was the first country to use wind energy. | TRUE | FALSE |
| 5. Energy can be produced from the waves of the sea. | TRUE | FALSE |

Name: _____

Date: _____

1 Answer the questions.

1. Where does energy come from?

2. What is wind energy?

3. Why is nuclear energy dangerous?

4. What is nuclear fusion?

2 Complete the sentences using these verbs.

convert generate heat pollute

1. Natural gas is used to _____ electricity.

2. Wind energy does not _____.

3. We can _____ our homes with geothermal energy.

4. It is possible to _____ light from the Sun into electricity.

Name: _____

Date: _____

1 Complete the picture dictionary.

coal electricity fireworks fossils geothermal energy
hydropower natural gas oil solar energy
sound energy toxic windmill

