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# **WORLD ENERGY ISSUES**

**Activities To Build Awareness & Understanding**



**Liz Foxwell and Les Ray**

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## **Acknowledgements**

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# WORLD ENERGY ISSUES

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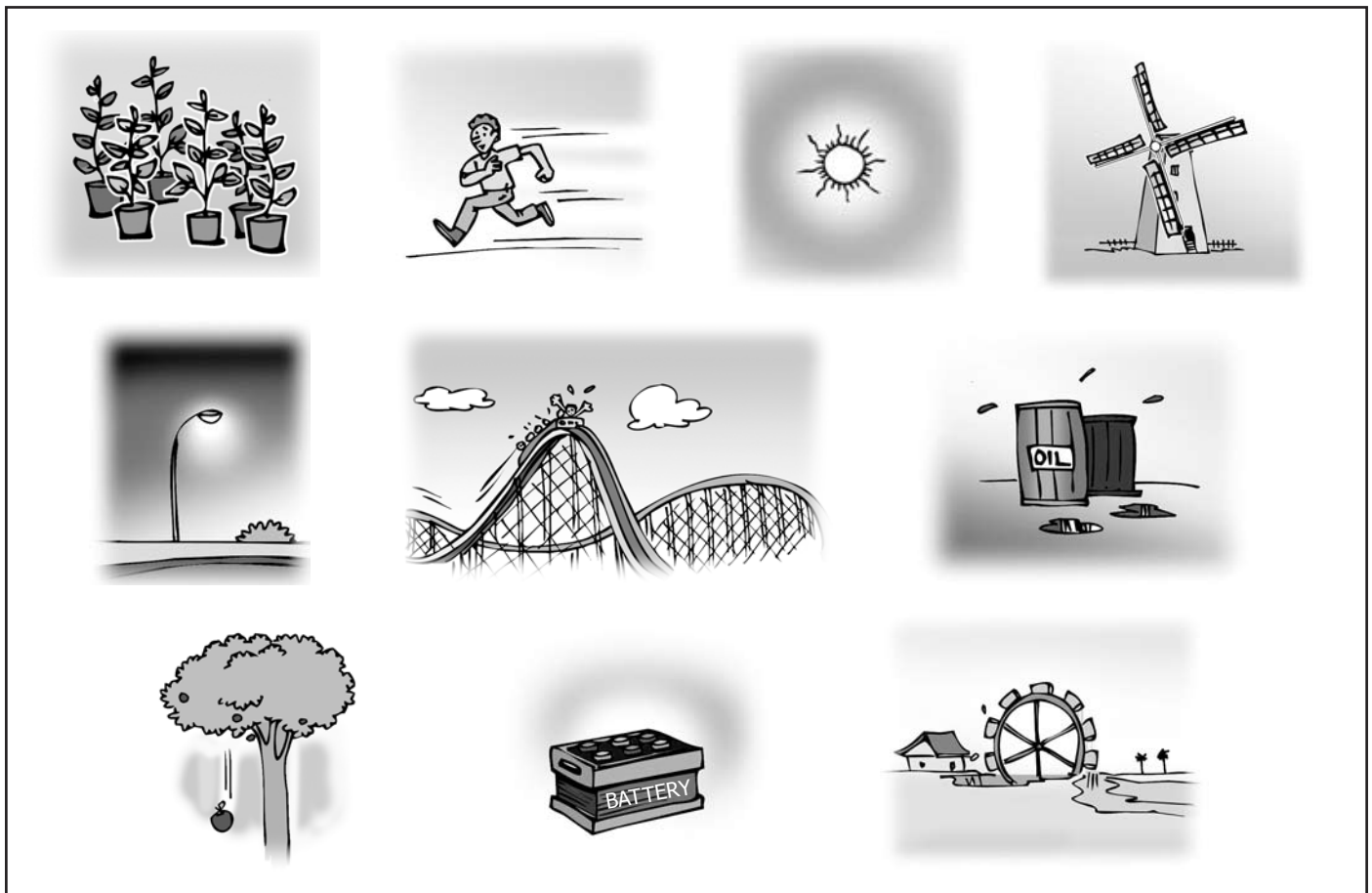
# WORLD ENERGY ISSUES

## What Is Energy?

We use energy for everything we do. We use energy to do work.

1. **Stored energy is called potential energy.**
2. **Moving energy is called kinetic energy.**

• Look at the pictures. What kind of energy do they use? Put them in the correct box.



Stored (potential) energy	Moving (kinetic) energy

# WORLD ENERGY ISSUES

## Why We Need Energy

### Teacher's Guide & Planning

#### The Key Issues

- All living things need energy for warmth, growth, repair, reproduction and movement.
- Energy for use by humans has been developed in many ways.

#### Additional Activities

##### Language

- Create an energy ABC.
- Write a letter to someone in another country telling them how you use energy.
- Write a list of all the different ways you use energy in a week.

##### Maths and Science

- Make a bar chart of the different ways that you and some friends use energy in one day.
- Find out where oil comes from and how it is distilled.
- Calculate how many joules you use up in one day.

##### Art and Humanities

- Survey the item that most people would miss if they did not have electricity.
- Make a story board showing someone using energy. Describe the processes involved.

##### Research

- Research the different uses of electricity in your area.
- Find out what a joule is and how much you need in a day.
- Research an area in the world that has little or no electricity. How do people create heat and light to live?

#### More Information

Humans use energy everyday by walking, running, swimming, eating, and keeping themselves warm. Plants make their food out of the sunlight and they also make oxygen, which we need to breathe (photosynthesis). They also use carbon dioxide and so help prevent global warming. The sun is also responsible for the weather – influencing the wind and rain. We all need energy, but we also have to learn how to save it, or we will be using too many of the earth's resources and also spoiling our environment.

# WORLD ENERGY ISSUES

## Why We Need Energy

Energy can be found in a number of different forms in the home.



- Look at the pictures. What kind of energy do they produce?

- Look around you at all the things that use heat energy to power them. Write about which two you would not want to lose and say why.

- Scientists talk about six different kinds of energy. These are:

<b>Chemical energy</b>
<b>Electrical energy</b>
<b>Heat (thermal energy)</b>
<b>Light (radiant energy)</b>
<b>Mechanical energy</b>
<b>Nuclear energy</b>

- Find an example of each for the chart.