



**Practical
Science**

Energy and Change

for 6-8 year olds

- Practical hands-on science activities
- Contains comprehensive teachers' notes and lesson ideas

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Teachers' Notes page 4
Presentation Ideas page 5
Curriculum Links page 6
Lesson 1: Ordering Events	
Teachers' Notes	..... page 8
Activity	..... page 9
Lesson 2: What is Energy?	
Teachers' Notes	..... page 10
Activity	..... page 11
Lesson 3: Energy Sources	
Teachers' Notes	..... page 12
Activity	..... page 13
Lesson 4: Using Appliances	
Teachers' Notes	..... page 14
Activity	..... page 15
Lesson 5: Energy at Home	
Teachers' Notes	..... page 16
Activity	..... page 17
Lesson 6: Saving Energy	
Teachers' Notes	..... page 18
Activity	..... page 19
Lesson 7: Energy Saving Poster Plan	
Teachers' Notes	..... page 20
Activity	..... page 21
Lesson 8: Energy in the Community	
Teachers' Notes	..... page 22
Activity	..... page 23
Answers	..... page 24

This book contains a package of photocopiable worksheets designed to be used to cover the Science learning area of **"Energy and Change"** with 6-8 year old students.

At this level the students' focus is local forms and sources of energy. Tasks involve practical activities using common everyday objects. Opportunities are provided for students to follow pictorial diagrams, create a poster and extend matching and drawing skills. Activities include ordering events, examining sources and uses of energy in everyday appliances, looking at energy transfer and studying the use of energy in the wider community.

Each lesson has the potential to:

- extend into more than one lesson by having separate parts to the lesson sheet. Some sections of a lesson may need planning on other paper before final copies are transferred to the lesson sheet. Some lessons may be too long for one lesson and could be completed at another time.
- expand into other curriculum areas using a similar theme. There are ideas for cross-curricular integration with other learning areas. Sometimes a whole day's work could be planned around one lesson sheet.

Science Materials and Equipment

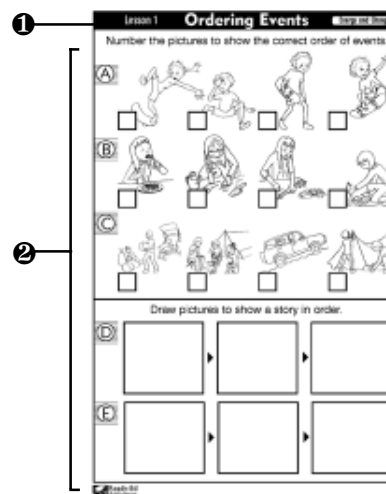
The equipment needed has been kept to a minimum to facilitate ease of planning. It is readily available in schools or is easily acquired.

All lesson sheets are outcome linked to the various curriculum documents (see page 6). Answers are provided where necessary (see page 24).

Other books in the Practical Science series:

- *Earth and Beyond*
- *Life and Living*
- *Natural and Processed Materials*
- *Working Scientifically*

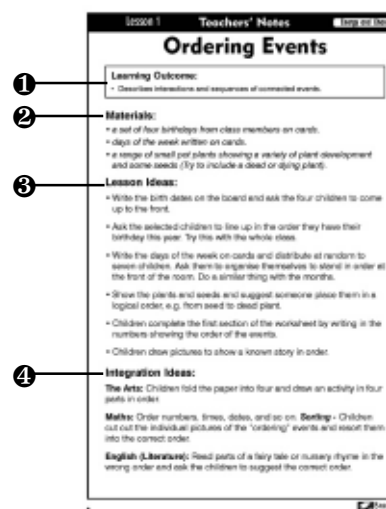
Lesson Sheets Layout



STUDENT LESSON SHEET

① Lesson title

② Student learning activities



TEACHERS' NOTES INCLUDE: (FOR EACH LESSON)

① Outcome links;

② Required materials;

③ Lesson plan ideas including extension ideas and teaching tips;

④ Cross-curricular/integration ideas.

Ordering Events

Learning Outcome:

- Describes interactions and sequences of connected events.

Materials:

- *a set of four birthdays from class members on cards*
- *days of the week written on cards*
- *a range of small pot plants showing a variety of plant development and some seeds (try to include a dead or dying plant)*

Lesson Ideas:

- Write the birth dates on the board and ask the four children to come up to the front.
- Ask the selected children to line up in the order they have their birthday this year. Try this with the whole class.
- Write the days of the week on cards and distribute at random to seven children. Ask them to organise themselves to stand in order at the front of the room. Do a similar thing with the months.
- Show the plants and seeds and suggest someone place them in a logical order, e.g. from seed to dead plant.
- Children complete the first section of the worksheet by writing in the numbers showing the order of the events.
- Children draw pictures to show a known story in order.

Integration Ideas:

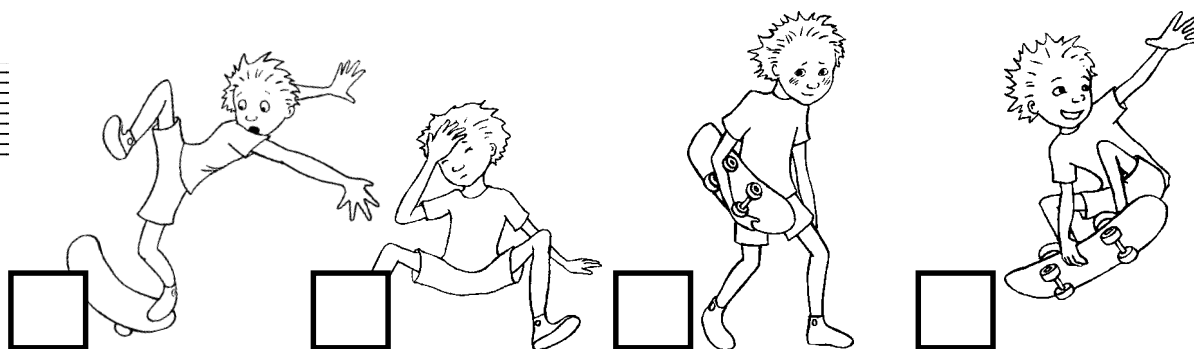
The Arts: Children fold the paper into four and draw an activity in four parts in order.

Maths: Order numbers, times, dates, and so on. Sorting: Children cut out the individual pictures of the “ordering” events and resort them into the correct order.

English (Literature): Read parts of a fairy tale or nursery rhyme in the wrong order and ask the children to suggest the correct order.

Number the pictures to show the correct order of events.

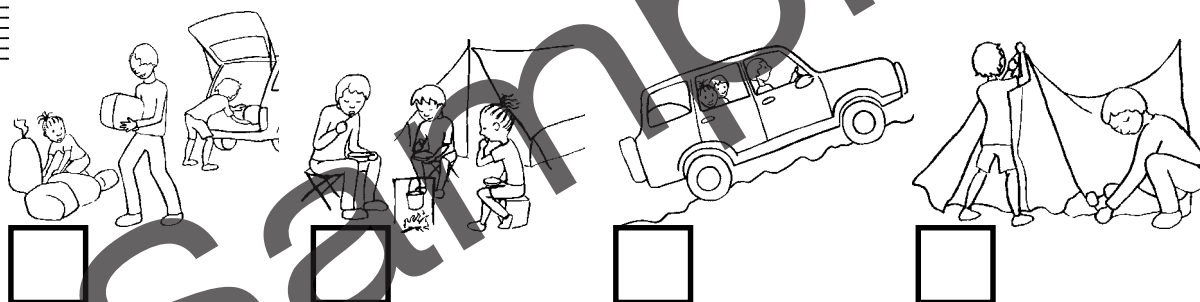
A



B



C



Draw pictures to show a story in order.

D



E

