EBOOK CODE: REAU4053

Ready-Ed Publications

Aligned with the **Australian Curriculum**

PHOTOCOPY MASTERS

Junior Scientists

Book 1

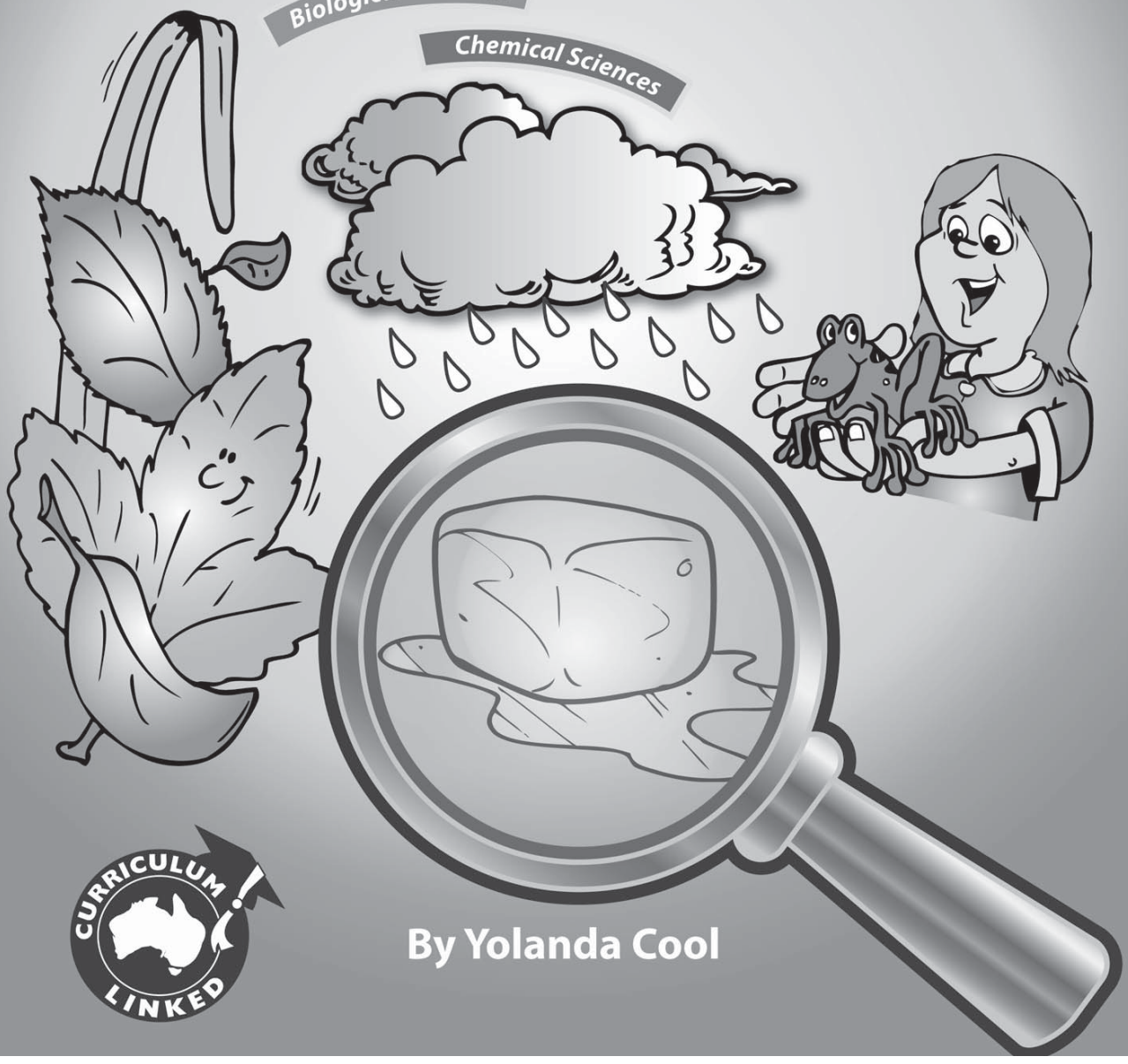
Earth & Space Sciences

Physical Sciences

Biological Sciences

Chemical Sciences

Ages 6-7 years



CURRICULUM LINKED

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Contents

Teachers' Notes

Junior Science Book 1 is the first book in a three part Science Series which helps teachers of Year 1 meet the requirements of the Australian Curriculum in their science classes.

When teaching science it is important to recognise that science is interconnected. To answer one question in biology, we must use chemistry. To understand why in chemistry, we can use biology and so forth. This book helps students to make links between the four sciences by examining all four areas within one book.

Young children are naturally curious about the world around them. This book provides them with opportunities to explore the world around them by: experimenting with materials, asking questions, recording observations, investigating and reflecting, and devising new ideas/ theories about how the world works.

Each activity page is paired with a page of notes for the teacher. These notes include: ideas for introducing each activity, background information, answers and possible student responses and extension activities.

Australian Curriculum Links

Biological Sciences
Living things have a variety of external features (ACSSU017).
Living things live in different places where their needs are met (ACSSU211).

Chemical Sciences
Everyday materials can be physically changed in a variety of ways (ACSSU018).

Earth and Space Sciences
Observable changes occur in the sky and landscape (ACSSU019).

Physical Sciences
Light and sound are produced by a range of sources and can be sensed (ACSSU020).

Human Endeavour: The Nature and Development of Science
Science involves asking questions about, and describing changes in, objects and events (ACSHE021).

Human Endeavour: The Use and Influence of Science
People use science in their daily lives, including when caring for their environment and living things (ACSHE022).

Teachers' Notes Animal Parts

Curriculum link: recognising common features of animals such as head, legs and wings.

Important Words:

features, head, body, legs, wings, eyes.

Concepts:

- Understanding that living things have a variety of external features.
- Recognising features of animals such as body, head, legs, whiskers, feathers and claws.
- Understanding that some animals have common features (e.g. chickens, emus and roosters all have wings).

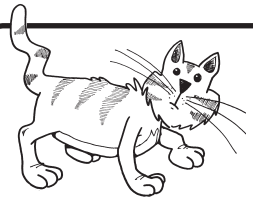
Teaching Ideas:

1. Ask the class what animal features they know. Make a list of these on the board (head, legs, body, wings, eyes, whiskers, etc.).
2. Ask the class what they would like to know about the features of animals.
3. Instruct them to draw a picture of their pet or of an animal that they have seen or know. They should label their drawings in as much detail as possible, using more words than the ones available on the sheet.
4. Ask students to pair up with someone who has drawn a different animal from their own. Children should try to spot if the different animals have any similar body parts.
5. Display students' drawings so that children can further identify that different animals can have common features (e.g. cats and dogs both have paws).

Extension Activity:

- The children can make models of the animals that they have drawn.

Animal Parts



All animals have body parts.
Different animals can have the same body parts.

Draw your pet or animal.

❍ Use some of your own words as well as the words below to label its body parts.

head	**eyes**	**nose**
body	**legs**	**mouth**

My friend has drawn a picture of:

_____

My animal and my friend's animal both have:

_____

Teachers' Notes — How Animals Move

Curriculum link: describing the use of animal body parts for particular purposes such as moving.

Important Words:

climb, crawl, fly, hop, move, run, swim, walk.

Concepts:

- Understanding that different animals use different body parts to move.
- Recognising that not all animals move in the same way.

Teaching Ideas:

1. Read out the list of Important Words and model more language forms that describe action.
2. Record the new words and display them next to the labelled animal drawings that the students completed on page 7.
3. Show them photographs of animals in action. Hold up each photograph and ask students to name the animal and then name the word for how the animal is moving, e.g. The animal is a frog. It is jumping.
4. Organise the class into pairs to practise using words that describe animal parts and action. One student can think of an animal and the other can say how it moves and which body part it uses.
5. Use models made in class to talk about animals' movements.
6. Students can then use what they have learned to complete the activity sheet individually.

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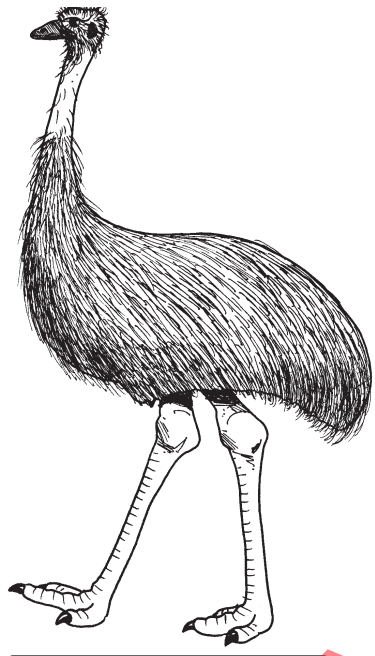
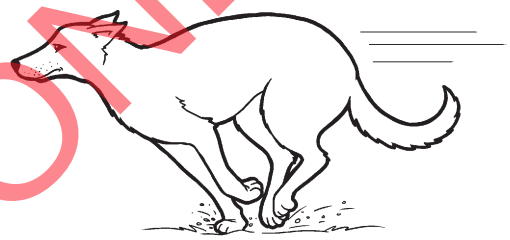
How Animals Move

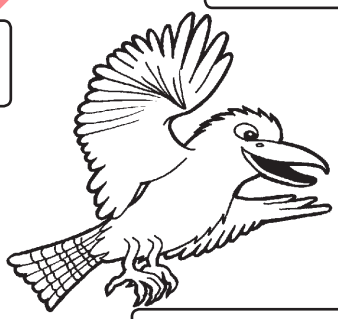
Animals move in different ways using different body parts.

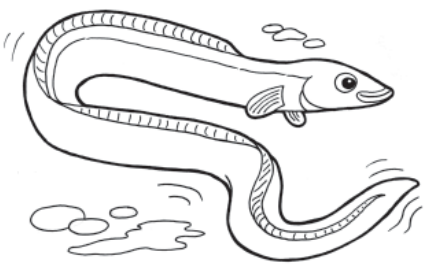
❍ Match the words with the pictures to show how the animals move.

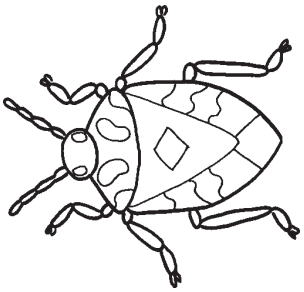
climbing **crawling** **flying** **hopping**
running **swimming** **walking**











❍ Colour the body part of each animal that helps it to move.

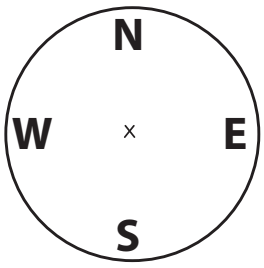
Recording the Weather 1

❍ Follow this procedure to make a wind vane.

Materials:

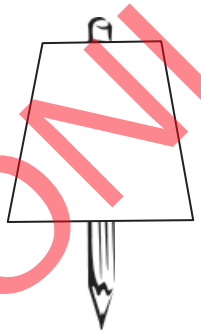
- **polystyrene cup**
- **pencil with rubber end**
- **pin**
- **scissors**
- **straw (cut in half)**
- **texta or pen**

1



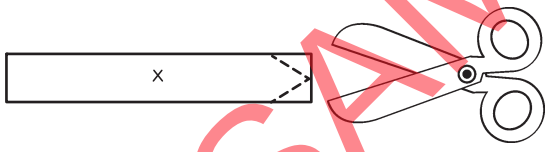
Mark north, south, west and east on the bottom of cup using the texta or pen.

2



Push pencil tip through the bottom of cup so the rubber end sits on top.

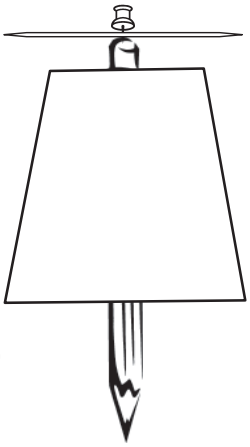
3



Press and flatten straw. Using scissors cut one end of the straw to resemble an arrow.

4

Find the centre of the straw and push pin through. Attach it to the rubber end of the pencil.
Your teacher will help you with this step.



Test: Find a windy place and watch it spin.

To use the wind vane, you must know where north, south ,east, and west are.

❍ Which direction is the wind blowing in today?

_____

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Recording the Weather 2

❍ Record the weather for a week.

	Temperature	Rainfall	Wind Direction	Cloud Type
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				

1. What was the average weekly rainfall? _____

2. What direction did the wind mainly blow in? _____

3. What was the highest temperature recorded? _____

4. What was the lowest temperature recorded? _____