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7-10 YEARS

Ready-Ed Publications

PHOTOCOPY MASTERS

More Science in the Garden

Science activities for 7-10 year olds

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CURRICULUM LINKED

Contents

Teachers' Notes

More Science in the Garden is designed to encourage primary children to engage with the living laboratory that they can find on their classroom doorstep. As well as being accessible, the garden encourages close encounters with fuzzy critters, flowering plants, seeds, trees and leaves.

Many of the activities in this book are practical and this should motivate children to learn, remember and have fun while 'doing'.

The resources needed for the practical activities are easy to assemble and the tasks are simple to set up and can be simplified or made more difficult for students of different age groups and abilities.

All of the activities are curriculum linked and are created to develop scientific thinking, skills and processes.

When completing the activities, the children will exp[illegible]:

- *the anatomy of plants, insects a[illegible]animals*
- *the classification of living th[illegible]*
- *the garden as an ecologi[illegible]system*
- *plant, insect and ani[illegible]adaptations*
- *garden biodive[illegible]*
- *the conservation o[illegible]atural resources*
- *health, nu[illegible]d safety*
- *fie[illegible]ork st[illegible]es.*

A set of teaching notes accompany each activity sheet. The teaching notes include an overview of the concepts covered in each lesson, detailed step-by-step instructions, suggestions for extension activities and recommended website resources.

Particular effort has been made to develop scientific literacy through a variety of text types and specific skills, for example: drawing and labelling diagrams, note-making, using graphic organisers, report writing and framing enquiry questions.

Wherever appropriate, links to other content areas of the curriculum have been incorporated. Answers can be found at the back of the book.

Teachers' Notes

The Right Place

Concepts and Objectives:

- Recognising scientific words.
- Sorting words into scientific categories.

Teaching Ideas:

1. Model the task with an example. Place the following words on the board: dog, red, canary, cat, yellow, blue, hamster, brown. Then draw two rectangles on the board and ask the children to sort the words into two groups. After sorting the words, ask the class to add two more words that belong to the same category in each rectangle. To round off, ask what the words in each set have in common (colours and pets/animals).
2. Distribute the activity sheet and ask the children to sort the words into the correct categories. Children could work individually or in pairs.
3. As an extension to the activity, students could identify the animals that the sounds and animal parts relate to.

▷Activity

The Right Place

■ Put the words in their right place.

Animals/mammals

Tree/plant parts

growl	leaf	snout	tentacles
purr	tweet	seed	bandico
rat	bark	echidna	poss
claw	shell	branch	
bat	hiss	gill	wer
wing	bleat	se	fruit

Animal sounds

Animal body parts

Teachers' Notes

Life Cycle Of A Ladybird

Concepts and Objectives:

- Describing a person's lifecycle.
- Understanding the process of metamorphosis in invertebrates and sequencing the stages in a ladybird's lifecycle.
- Identifying parts of a ladybird and understanding the food chain of a ladybird.

Materials:

- Pictures of people at various ages, copy of Eric Carle's, *The Bad-Tempered Ladybird*.

Teaching Ideas:

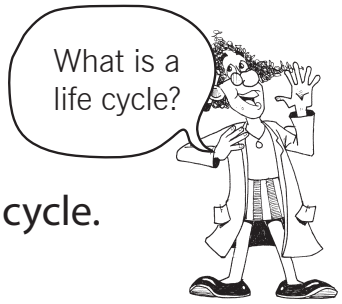
1. Cut out pictures of people of various ages from magazines and newspapers and put them in envelopes for small groups.
2. Ask the children to sequence the pictures from the youngest to the oldest. Explain that this is the cycle of life for people. Make connections to the children's own families.
3. Hand out the sheet and ask the children to sequence the stages in the ladybird's life, paying attention to the time taken for each stage. Go through the cycle using time markers: first, then, later, finally. Explain the term metamorphosis. They can copy this word and its meaning on to their sheets.
4. Identify other animals which go through this process such as butterflies and dragonflies, ask the students to list two of these animals on their sheets.
5. Look at the picture of the ladybird. Explore the children's knowledge about ladybirds. Check that they can name as many parts of a ladybird's body as possible (head, wings, antennae, legs, mouthparts, eyes). Ask what ladybirds do in the garden (help gardeners by eating pests), ask what they eat (aphids, mealy bugs, mites) and what might eat ladybirds (not many predators eat ladybirds because they excrete a foul-tasting chemical as a defence, but some hungry birds may take the risk).
6. You could construct a simple food chain for the children to copy on the back of their sheets to link the ladybird's life to its garden home and neighbours. (E.g. THISTLE → APHID → LADYBIRD → INSECT EATING BIRD.)
7. Shared reading of *The Bad-Tempered Ladybird*. Ask the children to predict what is going to happen next.

Find out more websites:

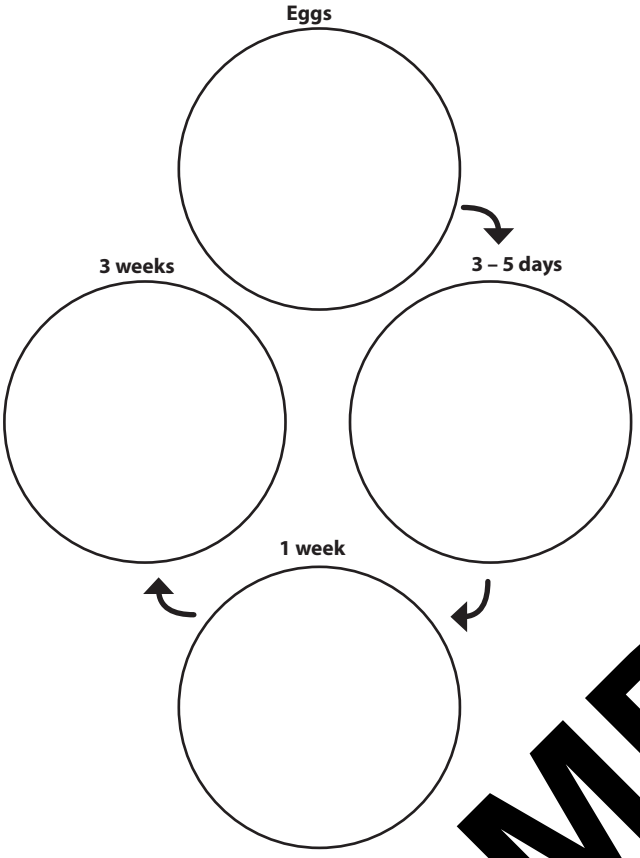
- www.ento.csiro.au/biology/ladybirds/ladybirds.htm
- www.backyardbuddies.net.au/buddies/Ladybirds.html

▷Activity

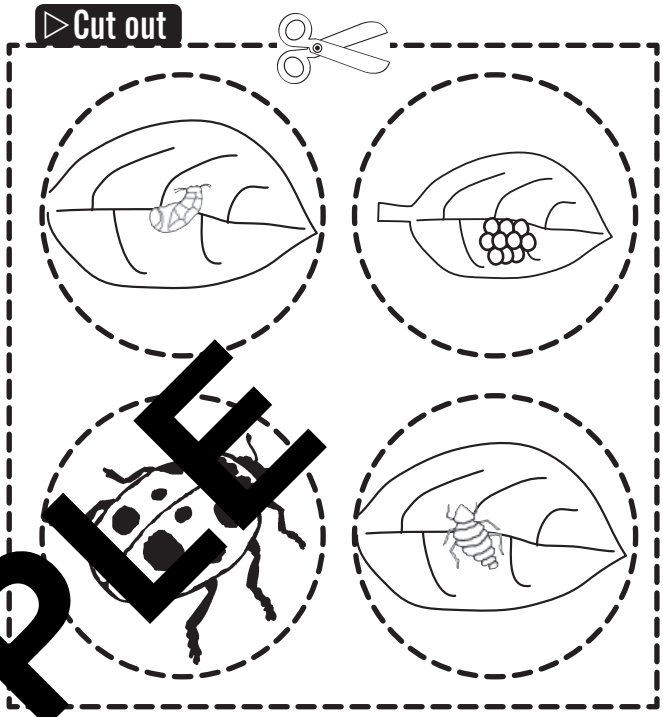
Life cycle Of A Ladybird



■ Cut and paste the pictures to show a ladybird's life cycle.



▷Cut out



▷ Part A

1. What is metamorphosis? _____

_____

2. Write down two more animals that go through this process.

_____

▷ Part B

1. What do ladybirds do in the garden? _____

_____

2. What do ladybirds eat? _____

3. What might eat ladybirds? _____

4. Draw a simple food chain that includes the ladybird.