

# Chapter 1: Plants and animals, habitats and shelters

## What you learn in this chapter


You are going to learn about plants and animals and how plants give animals food and places to live (**Specific Aim 1**). You can investigate how some small animals live and you find out how to grow plants in the classroom (**Specific Aim 2**). You will also see how people live with animals and how we depend on plants (**Specific Aim 3**). You will learn many new words and you will practise writing new kinds of sentences.

## Preview the chapter and learn a study skill

Find out what you are going to learn. Look at the pages in the chapter, and answer some easy questions.

- 1 The chapters have Units. Find Unit 1.1. What is it called? *“Living and non-living things on Linda’s farm”*
- 2 What page is Unit 1.2 on?
- 3 Linda lives on a farm. Find the big picture of the farm on pages 6 and 7. Some of Linda’s chickens are running free. How many chickens can you see in the big picture?  
*Three hens and a rooster*
- 4 Find the Unit where you will learn about the leaves of plants. *Unit 1.3*
- 5 Find the picture with leaves that looks like the one here: What are you going to do with the leaves? How many different leaves must you bring to school? *See Figure 26*

All great scientists and designers write ideas in their notebooks. When you learn science and technology you must write in a notebook too.

When you see this hand, , it means you must draw or write in your notebook.

## To the teacher

This chapter is the learners’ introduction to the subject of science and technology.

In this chapter, learners build vocabulary, language and literacy skills that they will need to develop the process skills and concepts in the curriculum.

The content on animals’ needs and shelters continues in the technology design process in Chapter 2.

Previewing is an important study skill the learners will need more and more as they become independent readers. Previewing a chapter helps them know what they are going to learn, and it wakes up relevant ideas they may have. So previewing helps them to become active instead of passive learners.

Spend about 20 minutes on this previewing activity or set it as homework.



Writing is a means to develop language skill. Learners begin to understand how sentences are constructed as they write plenty of complete sentences. They also learn the spelling and meaning of new words.

By the end of the term they should have about 8 pages of written work, and a full notebook by the end of the year.

Try to check the writing of some learners every day. They should try to do most of it on their own; if you dictate the correct answers, they will not learn from mistakes.

## Unit 1.1 Living and non-living things on Linda's farm

Find the big picture of Linda's farm on pages 6 and 7. We will come back to this picture many times in the year, so remember where the picture is. Linda lives with her parents on that farm.

- 1 Find these things in the farm picture: (a) Linda's house near the river, (b) the chickens, (c) the garden, (d) the mealie plants, (e) a jackal, (f) her dog (g) the eagle (h) the chicken coop. *If necessary, teach the words both in English and other languages.*

### Read this story, or listen while someone reads it:

Linda's mother has a garden and she keeps chickens. The chickens like to eat mealies and Linda feeds the chickens with mealies. The chickens lay eggs and Linda's family eats the eggs. Sometimes a hen sits on the eggs and they hatch and baby chickens come out.

Sometimes the family eats one of the grown-up chickens. Dogs and jackals like to eat the chickens too, but Linda puts the chickens in a chicken coop at night.

- 1 Linda feeds the chickens. What does she give them to eat? *Mealies, perhaps. Ask the learners where they see mealies growing on the farm.*
- 2 What food do the chickens give Linda? *Eggs, meat*
- 3 The chickens like to eat mealies. Where do the mealies come from, do you think? *Skill: interpreting the picture*
- 4 Look at the picture of the coop. Why does she put the chickens in that coop? *Skill: hypothesising - perhaps she needs to protect them at night.*
- 5 Do you think the coop is big enough for the chickens? Linda takes the bus to school in town every day.
- 6 Find the bus and the eagle in the picture.
- 7 Why does the eagle look bigger than the bus? Is it really bigger than the bus? *No, the bus is far away and the eagle is closer. Understanding this is a skill of visual literacy.*

Linda has many friends at school. You can see them here.

- 8 Paul and Thando are coming to visit her and Tahera on the farm. Find Paul and Thando in the picture. There is veld near to Linda's farm, and Linda likes to walk in the veld and see the trees and small animals.

You may feel that these questions are too simple for your learners, and you could go quickly over this Unit. However, in most classes you can find a wide spread of reading ability – some Grade 4 children are reading at Grade 7 level while others are at Grade 1 level.

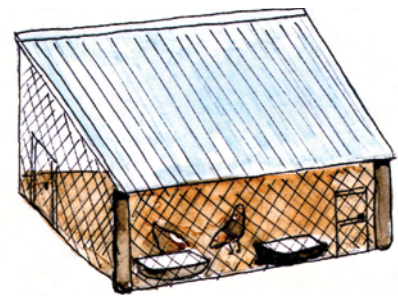
Often, the children who can read only at Grade 1 level get through by memorising text and we don't realise that they are reciting, not reading aloud. It's really important to identify these children now because their poor reading skills will have devastating effects on their learning in higher Grades.

### Pre-reading activities

It is possible that some of your Grade 4 learners are not yet able to read in English. You can help them if you do pre-reading activities. For example, ask them to find: (a) the chickens in the farm picture, (b) a chicken coop in the farm picture. (c) Linda's mother in the farm picture.

Now help them find and read the words "chicken", "coop", "mother". They keep a finger on the word in their book. Read the story aloud and when that word comes up in the story, the children have seen, heard and found at least the words you gave them in pre-reading. They are beginning to participate in the skill of storyreading.

**Figure 1** This is a chicken coop. Why do chickens stay in here at night?



**Figure 2** Linda and three of her friends.



- 9 Say the names of two things that you know in the picture. Tell the class something you know about these things. Then let someone else tell about two things.
- 10 On the chalkboard, take turns to write the names of all the animals which your class has spoken about. Write the name in English **and** other languages.

This section requires children to learn the names of organisms – they must increase their vocabulary in order to participate in the lessons. When they are participants in discussion, they use language and develop their concepts.

They might not know the English names for all these things but if you let them use the language they speak best, you make them participants in the lesson, instead of spectators. You build their confidence, and confidence is the key to learning.

Here is an example:

English name	Name in my home language	Name in my friend's home language
cow	inkomazi (this is an example)	kgomo (an example)
spider	ulwembu (this is an example)	sekgo (an example)
hare	unogwaja (this is an example)	mmutla (an example)
....	....	....

- 11 Count all the animals you can see in the big picture.  
How many animals are there? *Thirty-seven*

Question 12 about the spider makes the learners think about the concept of "animal". Do they think that a spider is an animal? Is a fish an animal? A bird?

- 12 Do you think a spider is an animal?

To a biologist, all these are animals. What about Linda, or her mother? Biologists see humans as animals because they share the characteristics of animals, but primary school learners find it rude and confusing to call Linda's mother an animal. So we use the terms "human" and "animal" in primary school.

- 13 How many **kinds** of animals can you see in the big picture? You see two meerkats but meerkats are **one kind** of animal. *About 23 kinds of animals. Learners must see the difference between individual animals and the class they belong in.*

- 14 How many **kinds** of plants can you see in the big picture? *Answers will vary but there are trees, reeds, grass, beans, mealies, pumpkins: this makes 6 kinds of plants. Note whether the learners see a tree as a plant.*

- 15 What are the names of the things in **Figure 3** to **Figure 14**? Choose names from the word-box underneath the pictures.

Figure 3



Figure 4

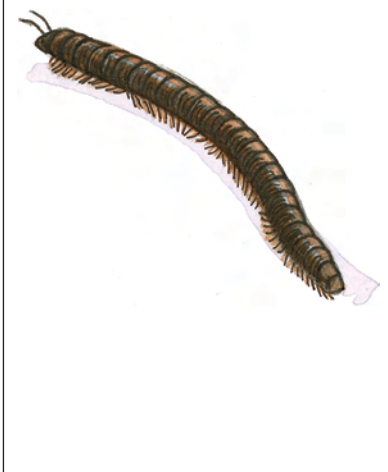


Figure 5



Figure 6

