

Inside Out

SCIENCE

Based on the Basic Education Curriculum B.E. 2551
(Revised Edition B.E. 2560)



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Scan this for
Learners' Glossary in Thai!



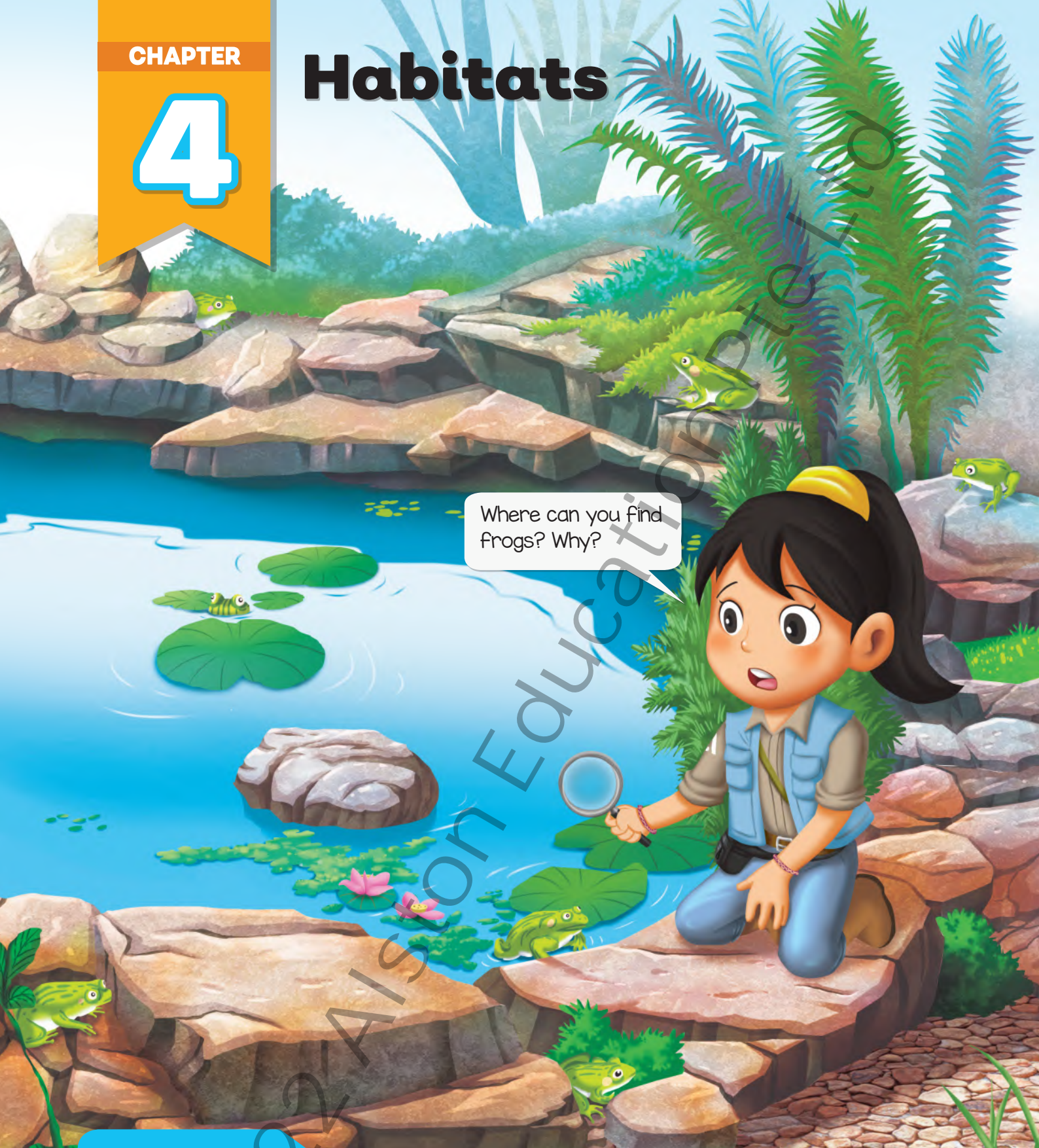
This series covers the learning objectives of the **Basic Education Curriculum B.E. 2551 (Revised Edition B.E. 2560)** in Thailand. The following table shows how the chapters in this book are aligned with the strands.

Strand 1		Standards
Strand 1.1	1.	Gather information to identify the names of plants and animals living in each habitat.
	2.	Explain proper living conditions for the animals living in the area.
Strand 1.2	1.	Gather evidence to identify each part of the human body, animals and plants, and describe their collaborative functions to perform activities.
	2.	Recognise the importance of different parts of the body by taking care of the various parts and keeping clean.
Strand 2		Standards
Strand 2.1	1.	Gather evidence to explain properties of materials used to make an object which can be made of one or more materials.
	2.	Identify types of materials and group them by their properties.
Strand 2.3	1.	Gather evidence to explain the origins and propagation of sound.
Strand 3		Standards
Strand 3.1	1.	Gather information to identify stars appearing in the sky during the night and day.
	2.	Gather evidence to explain why most of the stars cannot be observed during the day.
Strand 3.2	1.	Observe and describe the external appearances of rocks.



	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8
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	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8
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							✓	
	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8
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								✓
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Habitats



I will be able to:

- ✓ identify plants and animals in different environments
- ✓ give examples of plants and animals in different environments
- ✓ describe how plants and animals depend on each other
- ✓ describe how changes in the environment will affect the plants and animals living there

What Happens When There Are Changes to Habitats?

Plants and animals live in **environments** that **suit** them.

Frogs need to keep their skin wet. They lay eggs in water. Where can you find them?



Fish get the air they need from the water. Without water, they will die.



When it does not rain for a long time, ponds dry up. Plants and animals that live there die.



Environment: everything that is around a living thing that affects its growth and health
Suit: to provide what is needed or wanted

Some environments change with the **seasons**.



spring



summer

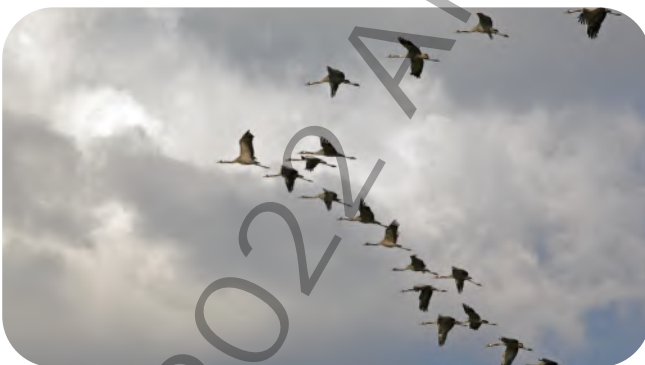


autumn

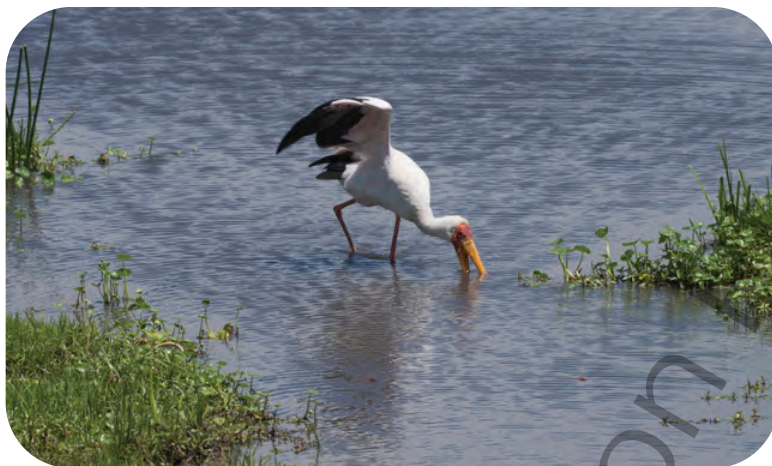


winter

When winter comes, it gets cold and food is hard to find. Some animals may leave the habitat to find another place where it is warmer or where they can find food.



They return when the **weather** in the environment gets warmer.



Some trees lose their leaves during winter. This helps the trees **survive** better through the cold and dry season.



LEARNERS' GLOSSARY

Weather: the state of the air at a particular place and time. We use sunshine, rain, wind and clouds to describe the weather.

Survive: to stay alive

Trees are habitats for many plants and animals.



◆ The cutting down of trees **affects** plants and animals that live there.



◆ The cutting down of trees affects the animals that use the trees for food or shelter. Many of these living things cannot survive when they lose their habitats.



Affect: to act on and cause a change



Deforestation is the cutting down of trees. Usually, trees are cut to get wood, or to clear space for growing crops. As a result, many animals and plants lose their homes.



✓ Tick the correct statements.

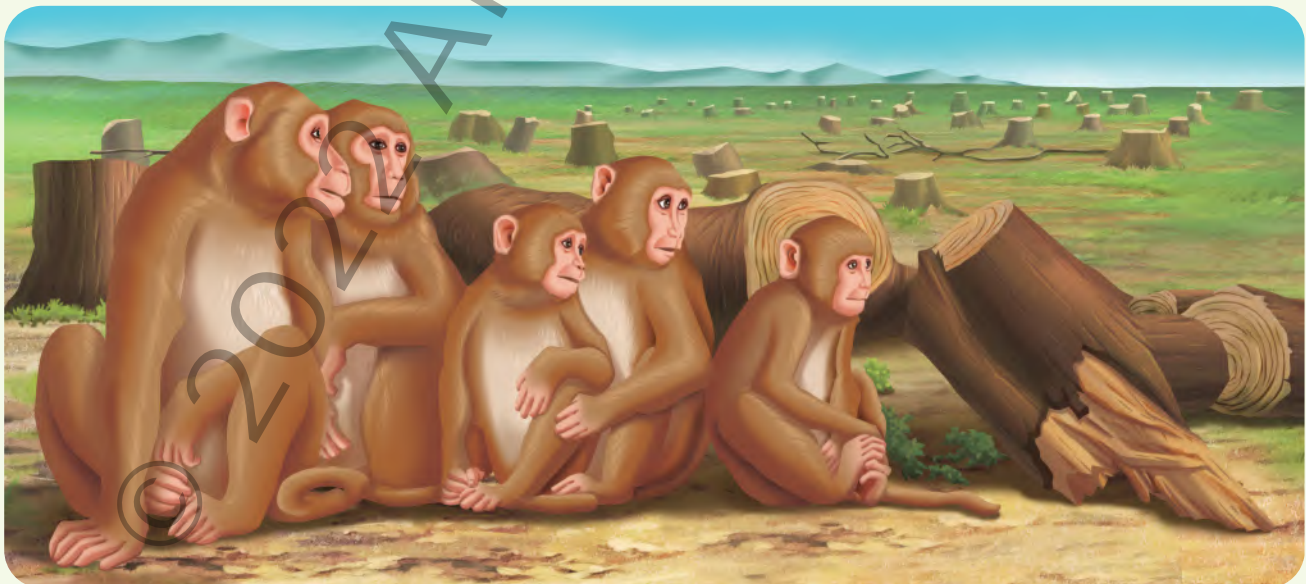
- ☐ A habitat is a place where a living thing goes to find food.
- ☐ A living thing needs air, water, and food to stay alive.
- ☐ The habitat of a bee is in the garden.
- ☐ A millipede lives deep in the soil.

Go To WB Exercise 1



STEM Activity

The trees in a forest have been cut down. Some monkeys have lost their home. Make a model of a crate to move them to another forest. Consider the habitat of the monkeys and make the crate comfortable for their ride.



Here are some materials you may need.



Ice-cream sticks



Thin branches



Drinking straws



Modelling clay



Newspapers



Pieces of cloth

PLAN

- a What do you need to make your crate?

DESIGN

- b How does your crate look like? Draw.

TEST

- c Present your crate to your classmates. Do they agree that it gives the monkeys a comfortable ride? Write down their comments.

IMPROVE

- d Improve your crate to make the ride more comfortable for the monkeys. Redraw your design.



✓ Tick your answer.

1 Which animal can be found in the soil?

☐ Fish ☐ Ladybird ☐ Earthworm ☐ Squirrel

2 Which living thing does **not** belong to this habitat?


☐

☐

☐

☐

3 Which animal is **not** affected by the cutting of trees?

☐ Bird ☐ Frog ☐ Squirrel ☐ Monkey

4 Which group of living things belongs to the same habitat?

- ☐ Ladybird, hibiscus, snail
- ☐ Grass, grasshopper, fish
- ☐ Ant, earthworm, water lily
- ☐ Papaya tree, crab, frog

- 6 The picture below shows a habitat.



- a Name two animals that can live in this habitat.

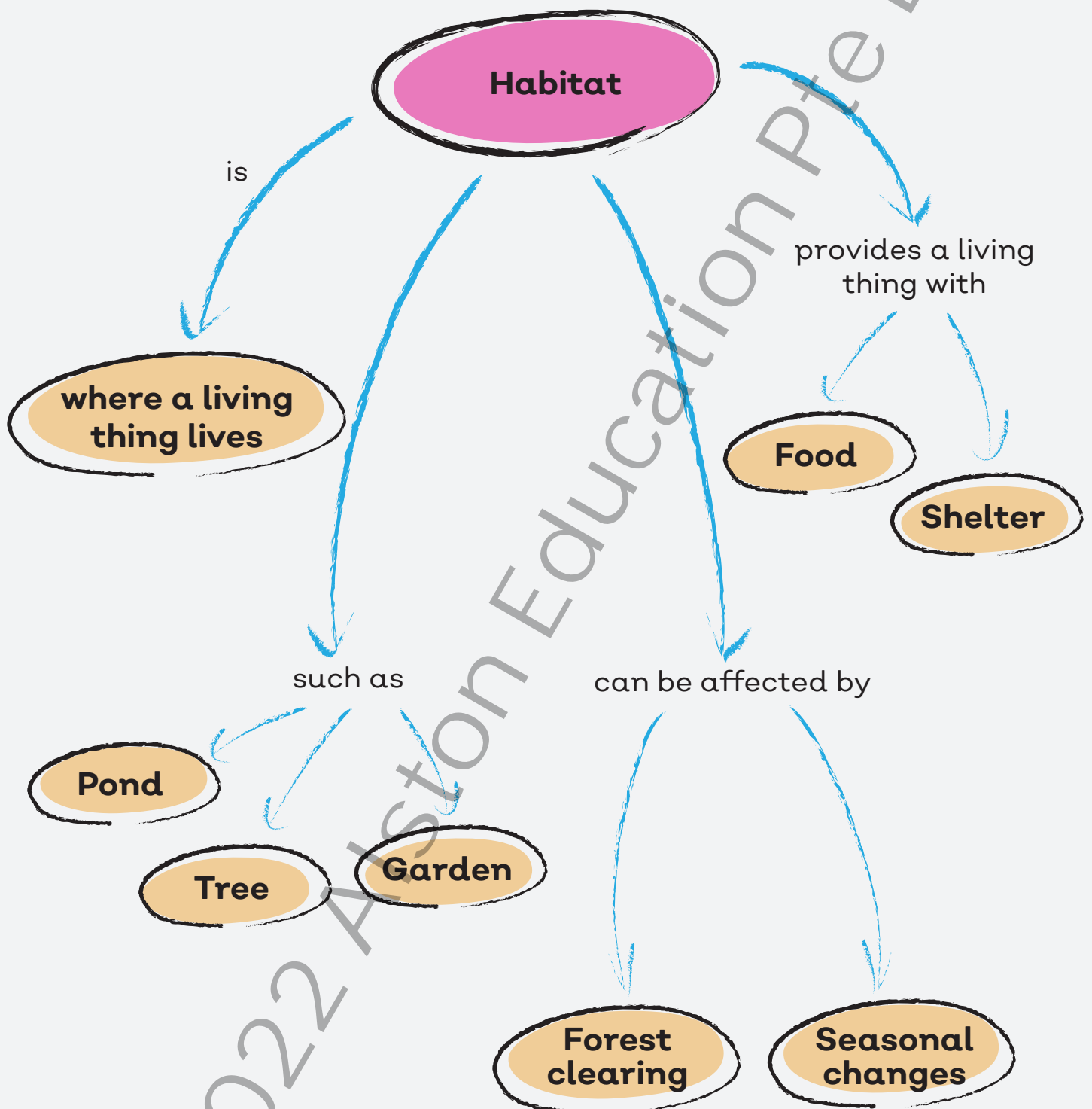
- b Name two plants that can live in this habitat.

- c What will happen to the animals living in the water if the water in this habitat dries up? Why?
Some animals will _____ because they need _____ from water.



Go To WB Mastery Practice





Habitats



Living things

- Animals and plants are living things
- They need air, water and food to stay alive

Habitats

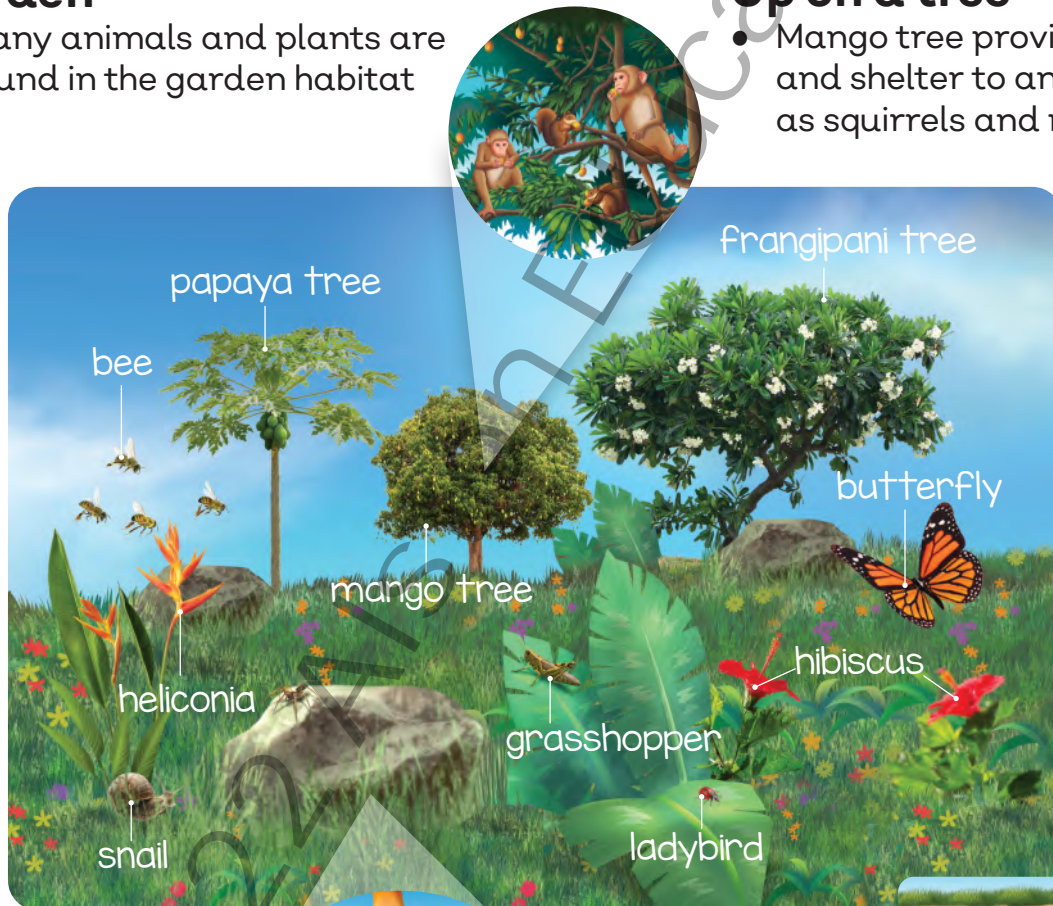
- A habitat is a place where an animal or plant lives, and get what it needs to stay alive

Garden

- Many animals and plants are found in the garden habitat

Up on a tree

- Mango tree provides food and shelter to animals such as squirrels and monkeys



Under stones

- Centipedes and millipedes live in damp, dark places



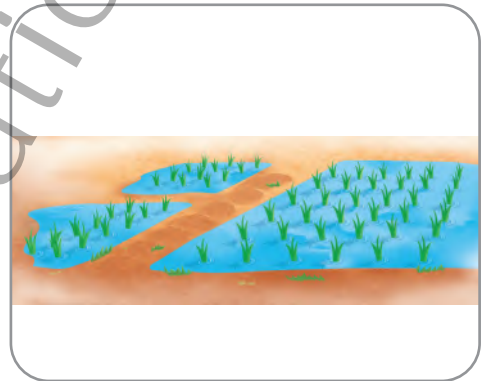
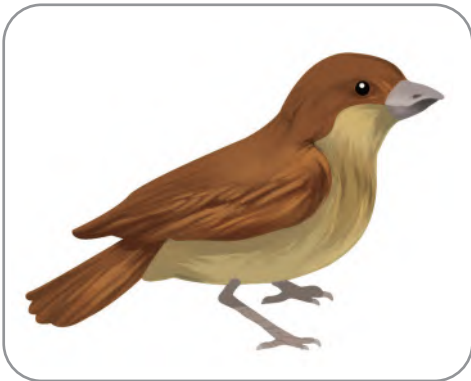
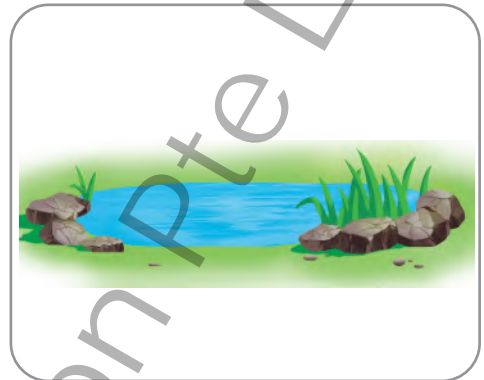
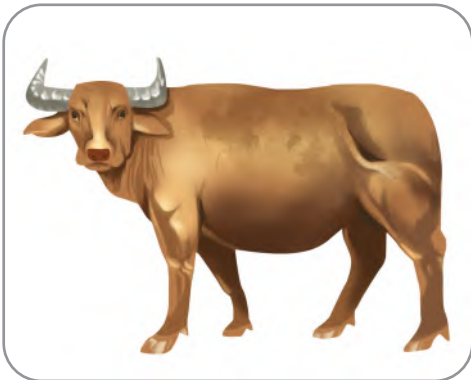
In the soil

- Ants and earthworms live in the soil
- Earthworms make soil more suitable for plants to grow



1 Plants and Animals in Different Habitats

1 Draw a line to match the animal to its habitat.



- 2 Tick the animals and plants that can be found in a pond habitat.



- 3 Fill in the blanks. You may use the words below.

habitat

food

survive

- a A _____ is a place where an animal or a plant lives.
- b A living thing needs air, water, and _____ to stay alive.
- c An animal or a plant may not _____ if there is a change in its environment.

Objective questions

Write down the correct answers.

1 Which of these does an animal **not** need for it to survive?

- A Air
- B Shelter
- C Food
- D Soil

2 Which animal can be found under stones or dead leaves?

- A Fish
- B Ladybird
- C Millipede
- D Squirrel

3 Which living thing does **not** belong to this habitat?



A



B



C



D

4 Which of these plants grows in water?

- A Coconut tree
- B Banana plant
- C Rice plant
- D Hibiscus

Subjective questions



Picture B



19 Look at Picture A.

a What habitat is this? _____

b What does this habitat provide for the bird?

The habitat provides _____ and

_____.

20 Look at Picture B.

a Why are these birds moving away from their habitat?

This is because in winter, it is _____ and

_____ is hard to find.

b Name one other change in a habitat that causes animals to move to a new habitat.



_____.

- 21 A fisherman catches a fish and places it in an empty pail. After a while, the fish died.

a What habitat does a fish live in?

_____.

b Where does the fish get its air from?

The fish gets its air from the _____ it lives in.

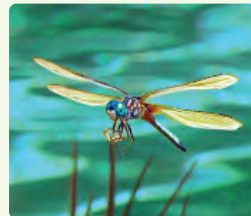
c Why did the fish die after a few minutes in the pail? Tick.

☐ The fish cannot swim in the pail.

☐ The fish was out of water. So, it cannot get air to make food.

☐ The fish was out of water. So, it could not get enough air to live.

- 22 The photos below show two animals.



a What are two differences between these two animals? Use these helping words to fill in the blanks.

swims

flies

legs

wings

eyes

skin

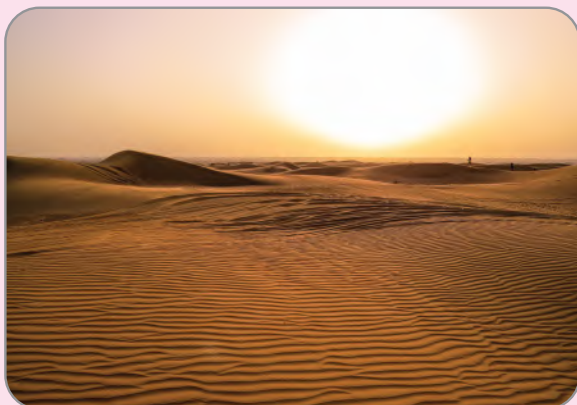
The frog _____ in water while the dragonfly _____ in air.

The frog moves with its _____ while the dragonfly moves with its _____.

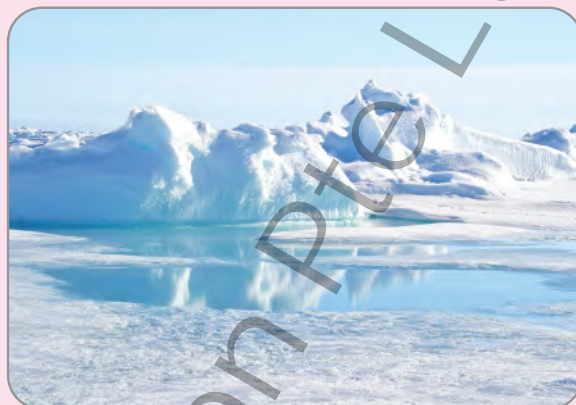
b Which habitat do these two animals live in?

_____.

- 1 The photos below show two different habitats.



Habitat A



Habitat B

- a Describe the habitats. Use the words below.

Cold

Hot

Has a lot of sand

Has a lot of ice

Dry

Wet

Habitat A	Habitat B

- b Name one animal that can be found in each habitat.

Habitat A: _____

Habitat B: _____

Test 2

100

Objective questions [60 marks]

Write down the correct answers. Each question is 2 marks.

- 1 You need a container to cook food while camping outdoors. What property should the container have?



- A Strong
B Get hot easily
C Bend easily
D Absorb water

☐

- 2 Which headings are suitable for the two groups of materials below?



- A X: Rough
B X: Cannot be stretched
C X: Rubber
D X: Plastic
- Y: Smooth
Y: Can be stretched
Y: Fabric
Y: Fabric

☐

- 3 A towel is made of fabric because _____.

- A it is waterproof
B it gets hot easily
C it absorbs water
D it lets light through

☐

- 4 A bowl can be made of plastic or metal. Which property of the materials makes them suitable to make a bowl?

- A Waterproof
B Floats in water
C Gets hot easily
D Lets light through

☐

Subjective questions [40 marks]

Write down the correct answers.

- 31** We use the object shown below when we swim.



- a** What properties should the material used to make Part A have? Circle. [2]

Waterproof Can be stretched easily Lets light through

- b** What properties should the material used to make Part B have? Circle. [2]

Waterproof Can be stretched easily Lets light through

- c** Name the materials suitable to make Part A and Part B. Fill in the blanks above. [2]

- 32** The picture shows a shelter.

- a** What properties must Material X have?
It _____ and _____



- b** What could Material X be?

- 33 a** How can Ning make a louder sound with the gong?

She can _____



- b** Can Chan hear the sound? Why?

- 36** Does sound get louder or softer as you walk towards a sound source? [1]

The sound gets _____ as I walk closer to the sound source .

- 37** The picture below shows the Moon.



- a** Draw two other possible shapes of the Moon. [4]

--	--

- b** Ning says that the Moon gives off light since it is very bright at night. Is Ning correct? Why? Circle. [2]

Ning is (correct / not correct). The Moon appears

bright because (it gives off light / light from the Sun shines on the Moon and bounces off).

- 38** What is one similarity between a star and the Moon? [2]

Both a star and the Moon can be _____ at _____ .

- 39** What is one difference between a star and the Moon? [2]

The stars _____ light but the Moon does not.

- 40** Ari says, "The Sun is bigger than the other stars."

Jim says Ari is wrong. Why is Ari wrong? [2]

The Sun looks bigger than the other stars because it is _____ to us than the other stars.