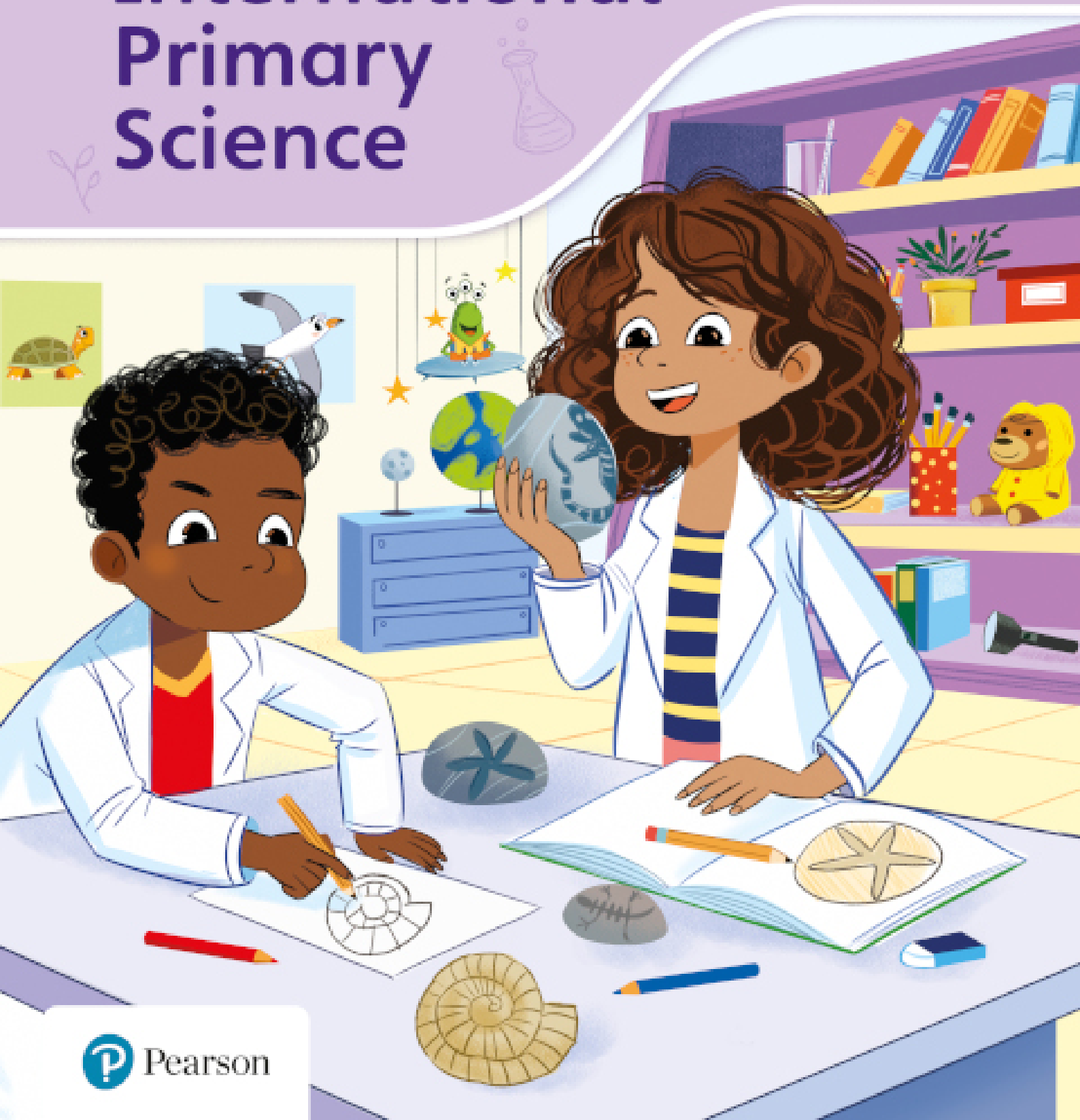


Pearson International Primary Science

Year 5
Textbook



Year 5

Textbook



Pearson



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Welcome to Pearson International Primary Science!

This book is a key part of your journey to becoming a young scientist.

Let's take a look at some of the features.



Introduction

This introduces you to what the lesson is about.

Information


These are some of the important things you will learn in the lesson.




Habitats around the world Topic 1 | Plant adaptations

The place where animals and plants live is called a **habitat**. Habitats differ around the world.


Rainforest
Rainforests are warm and wet at all times.
More than half of the world's animals live in rainforests.




Temperate forest
Temperate forests are found in parts of the world where it is warm in summer and cold in winter.
There is regular rainfall.



Oceans and seas
Oceans cover more of the Earth than land. The water in an ocean is salty. Deep in an ocean it is dark.




Freshwater ponds and lakes
The water in freshwater ponds and lakes is not salty. The water does not move about as much as in other aquatic habitats.



Desert
Desert habitats can be very hot and very dry. The temperature is cooler at night than in the day.

Grassland or savanna
Grassland habitats are not as dry as desert habitats but they do not have as much rainfall as forests.



Find out about other habitats.

- polar
- tundra
- coral reef

Where could you do some research?

Key words
habitat rainforest temperate oceans seas salty
freshwater aquatic desert grassland savanna

4 5

Questions

There are lots of questions within the lesson to challenge your thinking.

If you are very interested in science, the textbook shows you pictures of extra things to explore yourself. After you have read these pages you could find out more about rainforests and why humans need them on our planet.

Key words

These are important words to know. They are highlighted in green in the lesson.

Mascots

These are helpful hints or questions from our mascots.


Topic 1 | Plant adaptations

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Page numbers

The page numbers for each lesson exactly match the page numbers in your workbook. This means you can easily find the workbook page for every textbook lesson.

You can use the textbook pages to help you with some of the workbook tasks. Sometimes the results table for an investigation is in the workbook.



Meet the mascots

Asha

This is Asha. She is good at science and helps others to **understand** things. Asha works **accurately** and will help you to do that too. She knows that many words in science have a very **precise** meaning and she points this out to you from time to time.



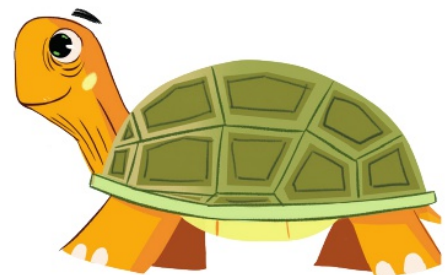
Marco

Meet Marco! He is **analytical**. He thinks carefully about how things in the world work. He likes **investigating** and tries to get reliable results by doing fair tests. Marco encourages you to **apply** your knowledge to work out answers whenever you can.



Victor the giant tortoise

Say hello to Victor. He is a giant tortoise from the Galapagos Islands. Victor is 120 years old! Victor is **observant** and keen to explore the world beyond his island. Victor is slow and **careful** but he plans his time well. He likes to **think ...** and what better place to do it than inside his shell!



Sully the gull

Wave hello to Sully. He is a type of bird called a gull. Gulls can be found all over the world! He is **curious**. Sully can fly up high or swoop down low to question things from different viewpoints. Sully knows that **asking questions** is the way that scientists start their own investigations.



Zorp the alien

This is Zorp! Zorp enjoys **exploring**. Zorp knows a lot about our Solar System and likes to share that knowledge. Zorp knows that lots of things on Earth are new to him, but he **discusses** them with friends and thinks of ways to find out things by himself too.

And finally ... you!

You are a very important part of these books. The books are here to tell you new things but also to help you to become a scientist. Scientists like to find out new things and to challenge their own ideas and those of others. We hope you enjoy exploring and investigating science, asking lots of questions and having fun!

Project skills

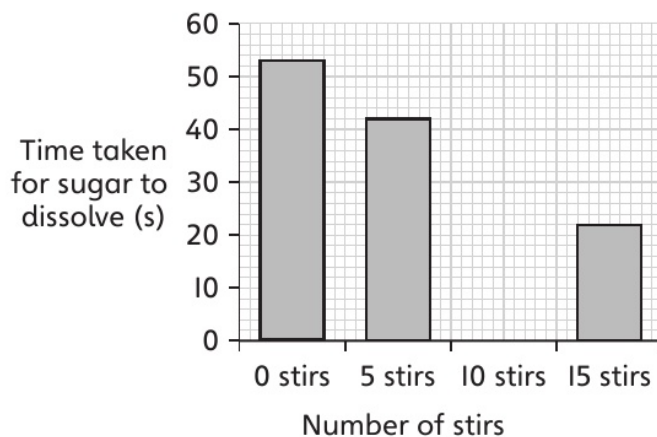
Presenting evidence

When scientists want to answer a scientific question, they plan investigations. They may make a prediction first, but then they need to design an investigation to find out if their prediction is correct.

The results from an investigation are used to make conclusions. The results are the scientific evidence that either supports or does not support these conclusions.

A set of results also tells us things about the investigation itself. Look at the bar graph. It shows what happens when a scientist tries to dissolve the same mass of sugar in the same volume of water at the same temperature each time, but with different numbers of stirs.

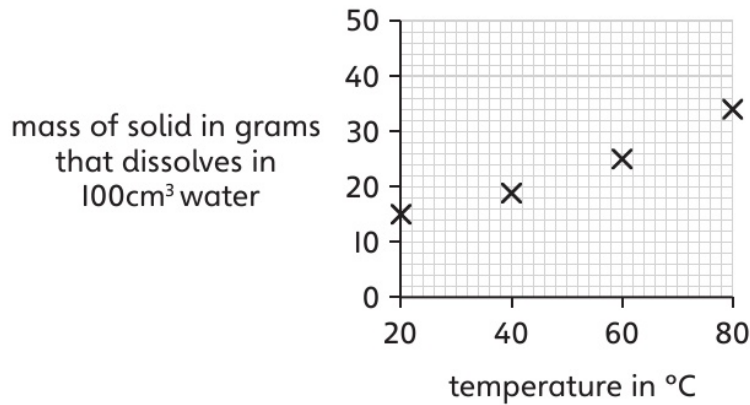
Activity



What does the bar graph show us? Answer the questions to find out.

1. What did the scientist **change** in this investigation? How do you know this?
2. What did the scientist **measure** in this investigation? How do you know this?
3. Describe the pattern in these results.
4. Predict how long it will take for the same mass of sugar to dissolve if it is given 10 stirs.
5. Predict how long it will take for the same mass of sugar to dissolve if it is given 3 stirs.

Activity



A line graph can also tell us things about the investigation.
Answer the questions to find out what this line graph shows.

1. What did the scientist **change** in this investigation? How do you know this?
2. What did the scientist **measure** in this investigation? How do you know this?
3. What volume of water did the scientist use each time?
4. How many different temperatures did the scientist use?
5. What mass of solid dissolved at 80 °C?
6. Describe the pattern in these results.
7. Predict the mass of this solid that dissolves at 50 °C.



I Plant adaptations

Plants are adapted to live in a habitat. Let's look at some habitats to find out how a variety of plants survive.



Plants are living things. They need light to make their food and the right temperature to grow well. They need oxygen from the air for respiration and they also need water. Aquatic plants have too much water; desert plants have too little.

The mangrove tree in the picture has more water than it needs. Plants in other habitats take in air from air spaces in the soil, but here the soil is too full of water. Look at how the mangrove's roots are adapted to take in air from above the water.

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Key words

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rainforest

temperate

oceans

seas

salty

freshwater

aquatic

desert

grassland

savanna

Microhabitats

Within a habitat there may be smaller **microhabitats**. Microhabitats are places that differ in some way to the bigger habitat.

This plant is growing in a microhabitat.
There is soil and water in the crack.
The plant could not grow on the path.



This plant is growing in a rainforest.
The tall trees block a lot of the **light**.
Very little light reaches the ground.



By growing high on a tree branch,
the plant can get more light.

Can you see more plants starting
to grow on the branch?

Inside the plant there is a tiny pond
in the centre. It is a microhabitat
for small invertebrates.



Some plants need **cooler, shady** places to grow.

The plants growing on the ground in this forest are **sheltered** from the hot sun by the trees above them.



Look at some places outside.

Measure the temperature in **sunny** places and shady places using a thermometer.



Measure the **light intensity** in the sunny and shady places. You can use a **light meter** or a phone app.



Observe what is causing the shade.

Some meters measure how wet the soil is. Use one if you can.



Key words

microhabitats

light

cooler

shady

sheltered

sunny

light intensity

light meter