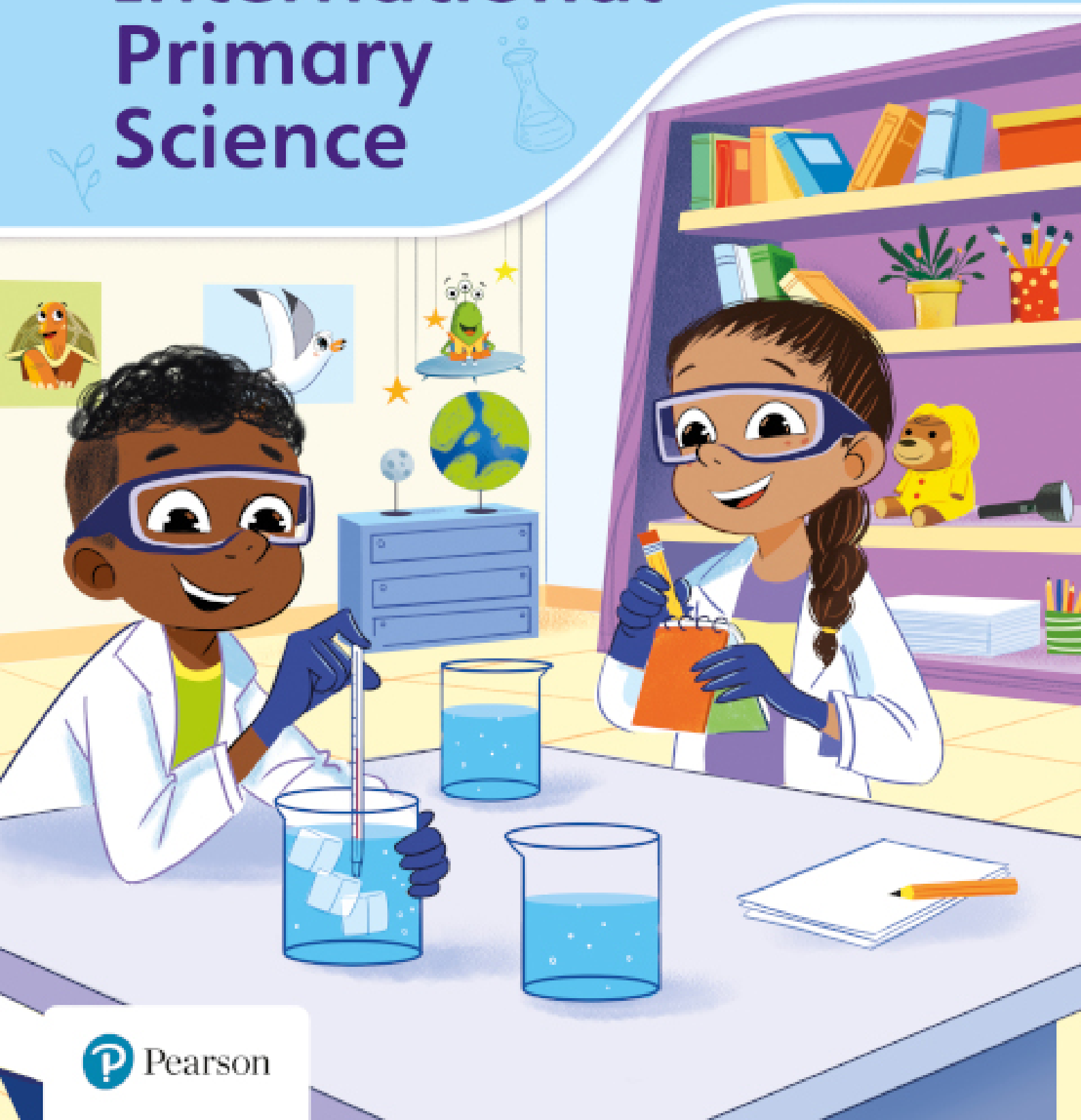


Pearson International Primary Science

Year 4
Textbook



Year 4

Textbook



Pearson



Published by Pearson Education Limited, 80 Strand, London, WC2R 0RL.
www.pearson.com/international-schools

Copies of official specifications for all Pearson Edexcel qualifications may be found on the website:
<https://qualifications.pearson.com>

Text © Pearson Education Limited 2023
Produced by Just Content Ltd
Designed by PDQ Media Digital Media Solutions
Typeset by PDQ Media Digital Media Solutions
Picture research by Straive Ltd
Original illustrations © Pearson Education Limited 2023
Cover design © Pearson Education Limited 2023

The right of Lesley Butcher to be identified as the author of this work has been asserted by her in accordance with the Copyright, Designs and Patents Act 1988.

First published 2023

26 25 24 23
10 9 8 7 6 5 4 3 2 1

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN 978 1 292 43331 7

Copyright notice

All rights reserved. No part of this publication may be reproduced in any form or by any means (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this publication) without the written permission of the copyright owner, except in accordance with the provisions of the Copyright, Designs and Patents Act 1988 or under the terms of a licence issued by the Copyright Licensing Agency, 5th Floor, Shackleton House, 4 Battlebridge Lane, London, SE1 2HX (www.cla.co.uk). Applications for the copyright owner's written permission should be addressed to the publisher.

Printed in the UK by Bell & Bain

Contents

1	Variation and classification	2
2	Growing plants	18
3	Skeleton and muscles	50
4	Solids, liquids and gases	70
5	Making and changing sounds	94
6	Electricity: everyday uses and simple circuits ...	122



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.



Topic 4 | Solids, liquids and gases

Solid, liquid or gas?

Let's look for some solids, liquids and gases.

Find six things in your classroom that are solids.

Now look for some liquids. These are a bit harder to find.

Can you think of any gases in your classroom? There is one all around you.

Look what I have found. It has all three!

Fizzy liquids have bubbles of gas in them.

They are put into solid containers.

Look at this sand.

Compare it to this liquid.

sand liquid

Sand looks a bit like a liquid.

Sand is not a liquid. Look closely at the sand.

Each grain is a tiny solid.

Sand makes a pile. It is a pile of lots of tiny solids.

Liquids do not make a pile. Look at the orange juice on page 74. Liquids make a pool, not a pile.

Key words
fizzy grain tiny pile

78 79

Questions

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

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.

Solid, liquid or gas?


Let's look for some solids, liquids and gases.




Find six things in your classroom that are solids.



Now look for some liquids. These are a bit harder to find.



Look what I have found. It has all three!



solid

liquid

gas

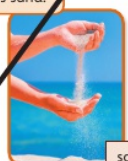
Fizzy liquids have bubbles of gas in them.

They are put into solid containers.

Can you think of any gases in your classroom? There is one all around you.


Topic 4 Solids, liquids and gases

Look at this sand.




sand

Compare it to this liquid.




liquid




Sand looks a bit like a liquid.


Sand is not a liquid. Look closely at the sand.



Each grain is a tiny solid.

Sand makes a pile. It is a pile of lots of tiny solids.





Liquids do not make a pile. Look at the orange juice on page 74. Liquids make a pool, not a pile.

Key words

fizzy grain tiny pile

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.

v

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.



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.



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.

Sully the gull

Wave hello to Sully. He is a type of 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.



Zorp the alien

This is Zorp! Zorp enjoys **exploring**. Zorp knows a lot about our Solar System and likes to share that knowledge.

And finally ... you!

You are a very important part of these books. We hope you enjoy exploring and investigating science, asking lots of questions and having fun!

Project skills

Is it my own work?

When you finish something that takes a long time you may be very pleased you have done it.



But things you look up in a reference book or on a website are someone else's work. They do not want you to copy it.

When someone reads what you have copied, they often know that it is not your work.



When you use books or websites for research, **read and understand what it says then write about it using your own sentences.**

Do you like to learn big words?
Look up the meaning of **plagiarism**.

Activity

Now try this.

1. Read some information in books or websites about an animal of your choice. Look in more than one place.
2. Write some sentences about the animal *using* information from your sources. Do not just copy it from any of them.
3. If the source is a website, put the **web address**.

For example:

<https://www.pearson.com>

If the source is a book, write the **title**, the name of the **author** and the **page numbers**.

For example: Pearson iPrimary Science Textbook Year 4, by Lesley Butcher, pages viii to ix.

These are your **sources**. They are places where information comes from.



Title

Write sentences about your animal in your own words.

Write a list of your sources at the end.



Scientists classify living things by looking at shared features. Let's look at these shared features too.



Vertebrates and invertebrates are two big groups of animals.

Within these two groups, animals may have different body coverings such as fur, feathers or scales.

Some animals have many legs, but others have fewer.

Scientists can also classify plants. They sometimes do this by looking at their leaves or flowers.

The picture shows a flowering plant called a buttercup.

How many petals does the flower have?
Are they all a similar shape?

Shared features

Scientists put living things into **groups**.

An animal or plant group contains living things that have **similar features**.

What features do these animals **share**?



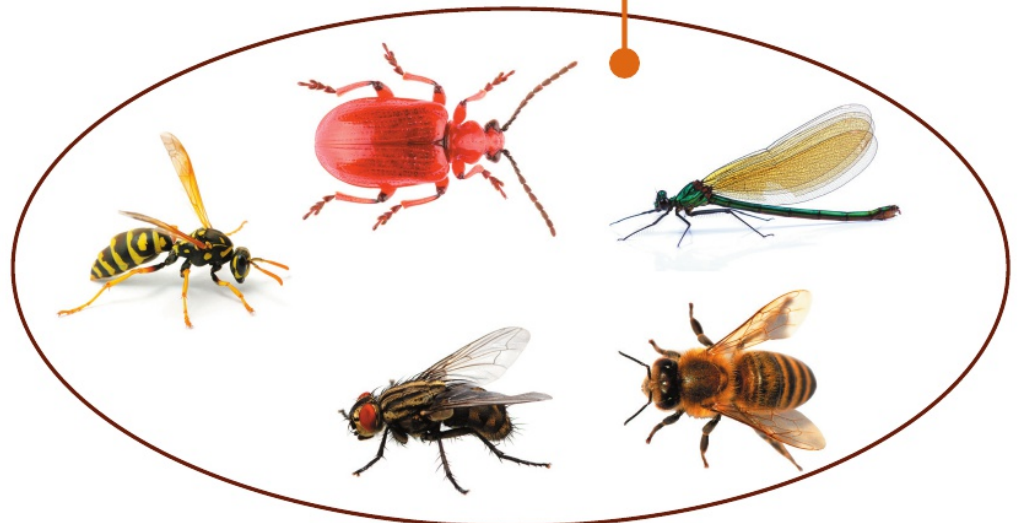
Do they have a backbone?

How many legs do they have?

What features do these animals share?

Do they have a backbone?

How many body parts do they have?



What features do these plants share?

Look at the shape of their leaves.

Suggest what sort of plants they are.



Animals and plants are not grouped by just one feature. To be grouped together, they must share several features.

Think of some reasons why these two animals are **not** grouped together.



Key words

scientists

groups

similar

features

share

Identifying local plants

Different plants grow in different habitats.

Observe some of the plants that grow where you live. Here are some ideas of things to look for.

Is it a tree?

Trees have a trunk.

palm tree trunks



other tree trunks



Flowers

If you can see flowers on a plant, count how many **petals** they have.



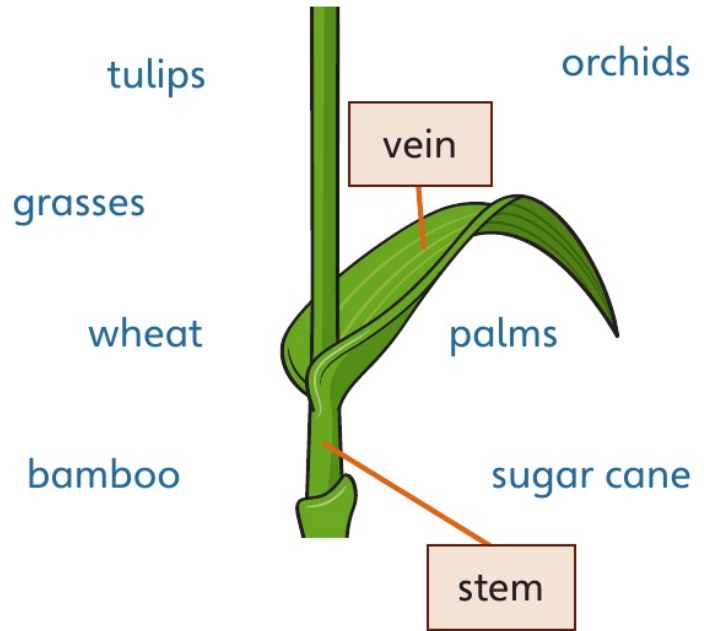
Are there three or six?

Are there four or five?

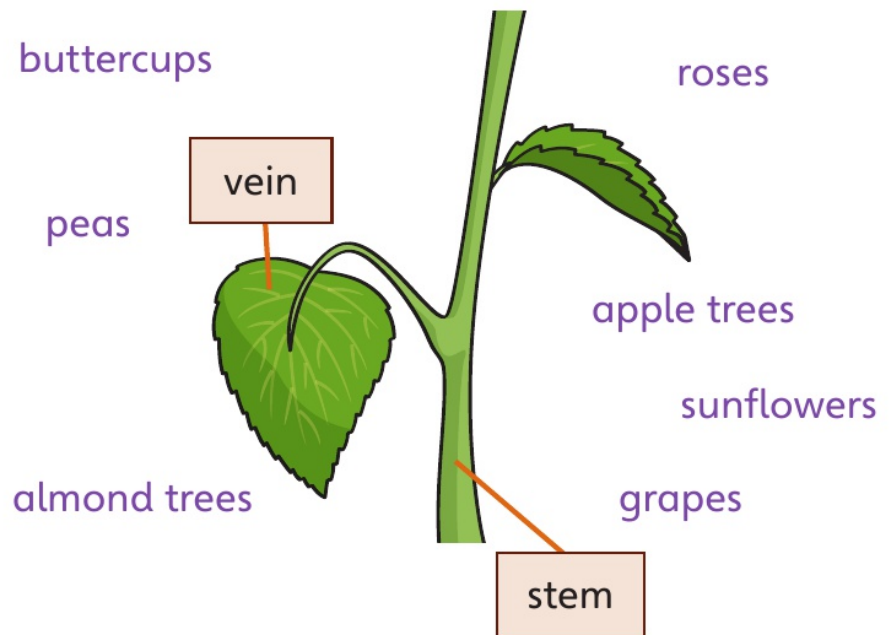
Are there many?

Leaf shape and veins

Some plants have **narrow** leaves with veins in **stripes**.



Some have **wide** leaves with one big vein and lots of smaller ones.



Make a simple key for some of the plants growing where you live.

Key words

observe

palm

petals

narrow

veins

stripes

wide