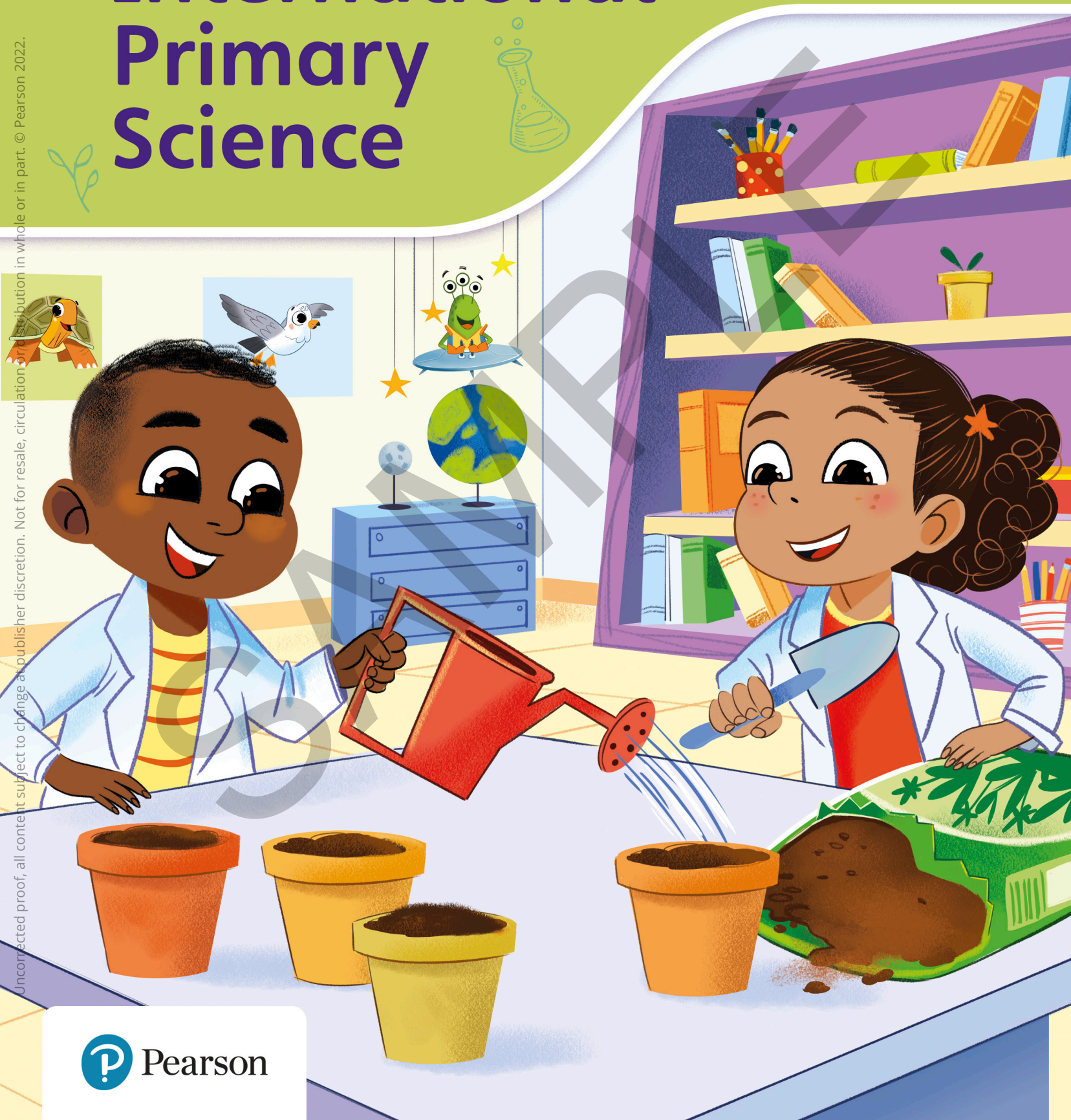


# Pearson International Primary Science

Year 1  
Textbook

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# Year 1

## Text book



Pearson





# Contents

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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

This is the information you will learn in the lesson.

Topic 1 | Living things

Animals are living things. Living things are **alive**. Living things **grow**. Living things need **food** to **eat**. Living things can **move**. Living things **breathe**.

What is this cat doing?

What is this animal doing?

What happens to **baby** animals that shows they are alive?

The cat is watching a mouse. The cat uses its **senses**. Think about what the cat will do. **Predict** what the cat will do next.

This toy elephant can move.

Is it alive?

Can the elephant move by itself?

**Key words**  
living things   alive   grow   food   eat  
move   breathe   baby   senses   predict

## Questions

There are lots of questions within the lesson to get you 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.

Topic 1 | Living things

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**Key words**  
living things   alive   grow   food   eat  
move   breathe   baby   senses   predict

## 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.



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# Meet the mascots!

## Asha

This is Asha! She **challenges misconceptions**. Asha knows it is okay to get things wrong. She learns a lot by asking questions.



## Marco

Meet Marco! He is **analytical**. He thinks carefully about how things in the world work. Sometimes Marco breaks down problems into smaller parts to help find out the answer.



## Victor the Giant Tortoise

Say hello to Victor. He is a Giant Tortoise from The Galapagos Islands. Victor is 120 years old! Victor is **curious** to explore the world beyond his island.



## Sully the Armenian Gull

Wave hello to Sully. Sully is **observant**. He is a type of gull. Gulls can be found all over the world! Sully can fly up high or swoop down low to look at things from different viewpoints.



## Zorg the alien

This is Zorg! Zorg enjoys **exploring and investigating**. They carry out investigations to learn about things. They look at different factors that affect investigations.



## 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

## Using a reference book: contents pages

A book is usually divided into parts called chapters. At the front of the book are pages called contents pages. A contents page shows you the order of the chapters and the pages they start and end on.

### Activity

This is a book about plants. Look at the chapters.

- 1. Trees and bushes
- 2. Flowering plants
- 3. Desert plants
- 4. Growing plants in pots
- 5. Fruit trees

Which chapters are about trees?

Which chapter is about growing plants?

Now look at the chapters with the page numbers.

1. Trees and bushes	2–12
2. Flowering plants	13–29
3. Desert plants	30–35
4. Growing plants in pots	36–44
5. Fruit trees	45–58

How does having the page numbers help?



### Activity

Think about why the page numbers start on page 2.

Which chapter has the most pages?

Find a book and look at the contents page. Ask a partner to find the start of a chapter you can see on the contents page.

Find another book and look at the contents page. Challenge your partner to find the last page of each chapter quickly.



## 4 Plants

Plants can be very big or quite small. They can live for a year or for hundreds of years. Let us find out more about the variety of plants in our world.



Most plants are green.  
Some plants have bigger leaves than others.  
Many plants have flowers, but some do not.  
Some plants are tall and woody – we call these trees.

This flower is called a donkey orchid.  
Can you see the petals that look like a donkey's ears?



# Parts of a plant

Most plants are green. Scientists group plants by looking at things that are similar and things that differ.

Plants have **leaves**, **stems** and **roots**.

Plants have one or more stems. The stem holds the plant above the ground.

leaves



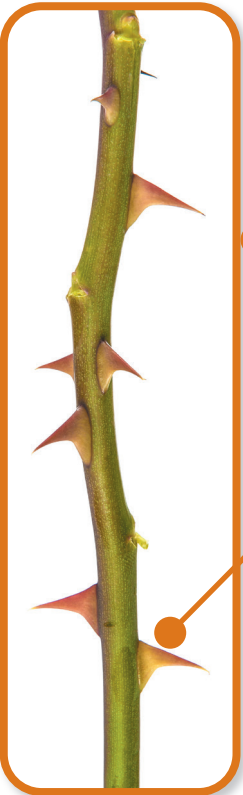
Describe this stem.

stem

roots

thorn

Suggest why some plants have **thorns**.



**Describe** means say all the things you can see.



Plants have roots.



roots

Roots have two jobs:

1. Roots hold the plant in the ground.
2. Roots take in water to keep the plant alive.

Leaves can trap sunlight. Plants need sunlight to make food to grow.



I eat plant leaves. They keep me healthy.



## Key words

leaves stem roots thorn describe

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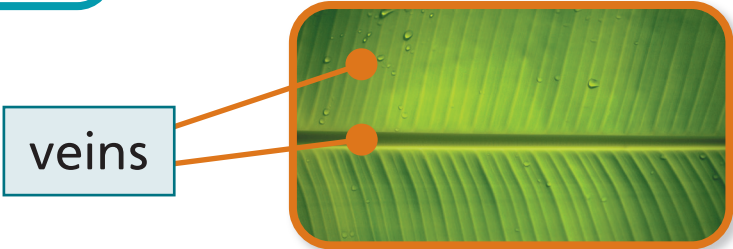


# Leaf shapes

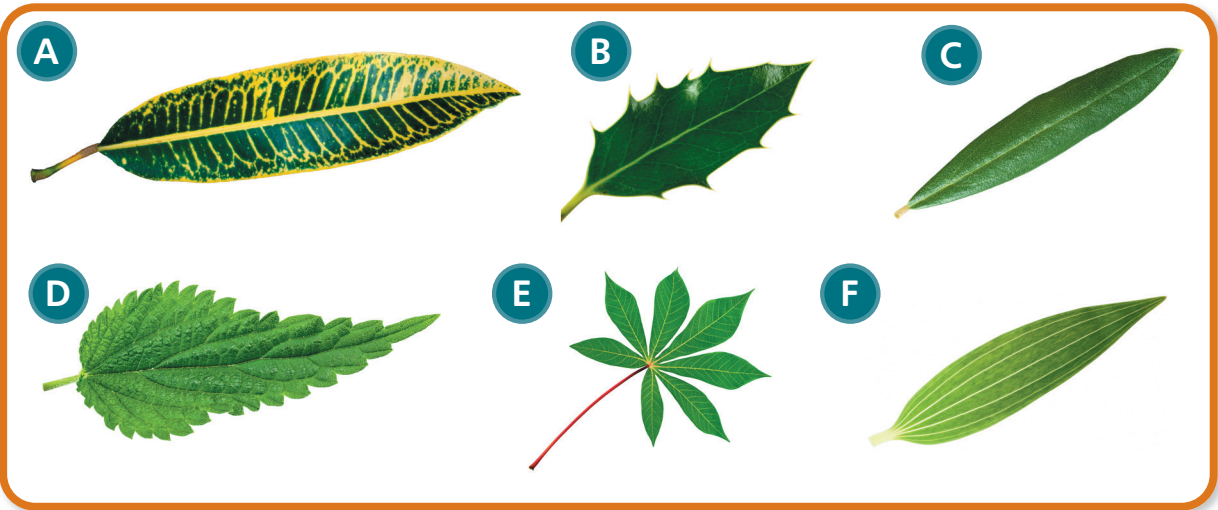
Plant leaves can look different. They may differ in colour and shape. This helps us to identify plants.



Leaves have veins that make different **patterns**.



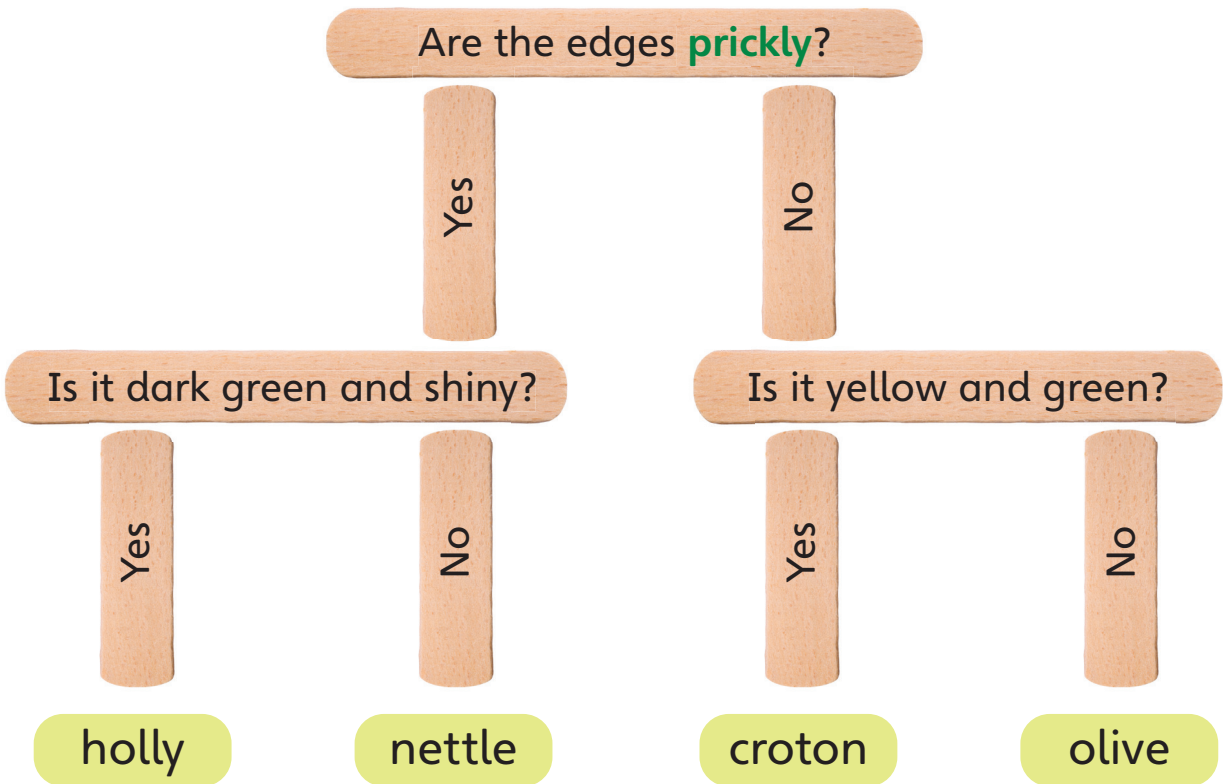
Look at leaves A to F.  
Can you see ways in which these leaves differ?



Look at the **edges** of the leaves.  
Look at the **patterns** of the veins.



Use this identification key to name leaves A, B, C and D.



Now look at the veins, the colours and the edges of leaves that grow where you live.

Can you describe them?  
Do they look like any in the pictures?

## Key words

pattern edges prickly

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# Flower shapes

Many plants have flowers on them. Most plants only flower for part of each year.

These cherry trees have lots of pink flowers.

Each flower looks like this.

How many **petals** can you see?



petals

This flower is **floating** in a pond.

Can you see the leaves?  
Suggest where its roots are.



Observe flowers that grow where you live. Look at their **shape** and colour.

Carefully remove the petals.



What shape are the petals?  
What colour are they?

Look! Parts of this petal are different colours.

The yellow end joins onto the flower.



Compare the petals of the flowers you look at.

## Key words

petal

floating

shape

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# Flower families

Scientists group similar flowering plants into flower **families**.

Look at these flowers from the mustard family.



How many petals do they have?  
The petals make an X shape.

These flowers are from the daisy family.



The petals have similar shapes.  
Do they have **more** petals or **fewer** petals than the mustard family flowers?

These are the simplest flowers in the rose family.



How many petals do they have?



Many flowers in the rose family are shaped like a bowl.



Compare the flowers in these three flower families.  
How are they similar and different?

## Key words

family

more

fewer



Look at flowers you can see growing outside.  
Can you describe them?

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# Trees

Plants grow in different ways. Some plants stay small and soft.

This grass grows taller as it gets older.

tree

grass



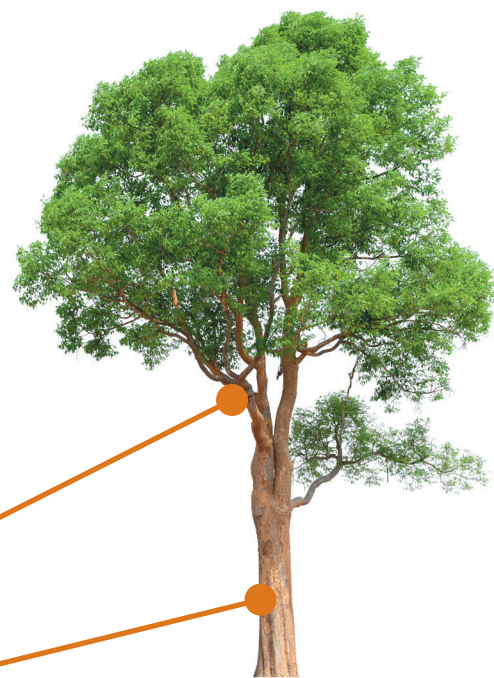
Do you think the grass will grow as tall as the tree?

Trees can grow very tall. The **woody** stem of a tree is the **trunk**.

Smaller woody parts of the stem are called **branches**.

branch

trunk



A tree trunk may have **bark** on it.

bark



What pattern can you see inside the trunk?



trunk



**Palm** trees have a less woody trunk.

A palm tree trunk may look like one of these:

As the tree grows **taller** the trunk gets **wider**.



## Key words

woody

trunk

branches

bark

taller

wider

palm

What are the trees like where you live?

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# Drawing plants

When scientists draw plants they try to show the features that help to identify the plant.



Draw with solid lines like this.  
not fuzzy lines like this.



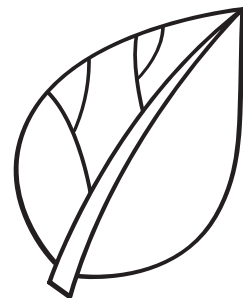
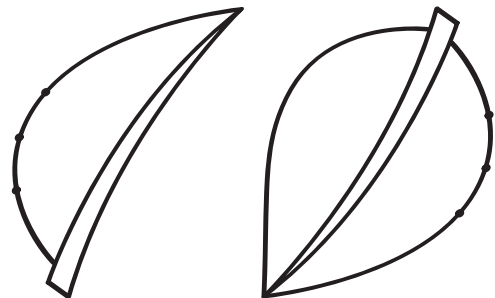
Draw the biggest vein first.

Put dots to mark the ends of the leaf.



Do not lift the **pencil** until you reach the next dot.

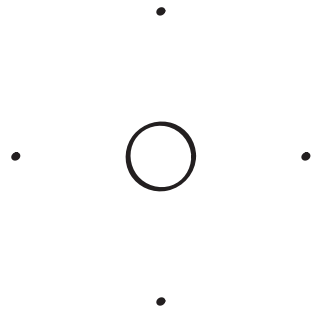
Draw the other veins.



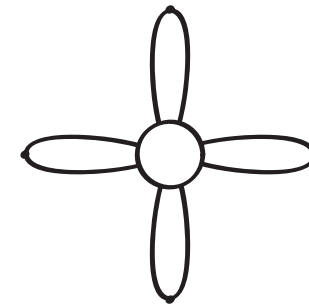
Now draw a simple flower.  
Put a circle to show the **middle**.  
Do not press hard.



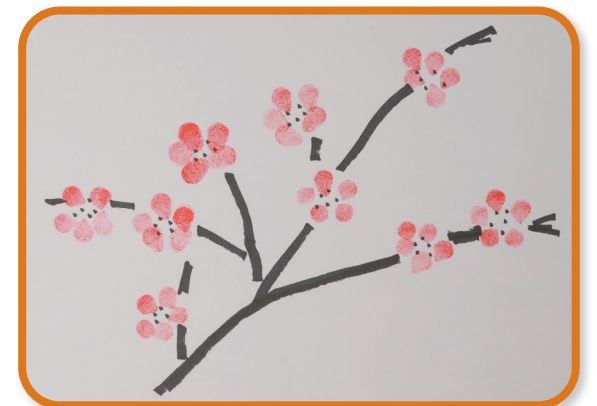
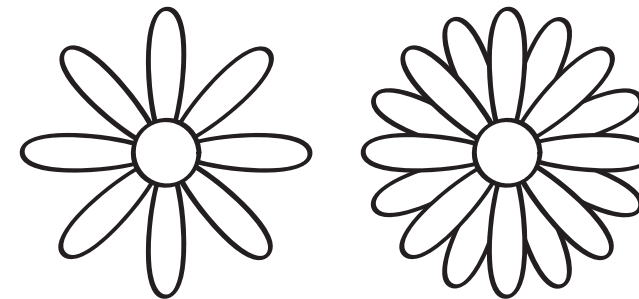
Put dots for the petals.



Try to draw each petal the same shape.



Look at the real flower to check your drawing.



**Key words**

pencil

middle



You could use your finger and a brush to paint a tree branch with flowers.

# Seeds

Lots of plants make **seeds**.  
The seeds grow into new plants.



Can you see the seeds  
inside these **fruits**?



We can buy  
packets of seeds to  
grow new plants.

Each packet has a  
picture of what the  
seed grows into.

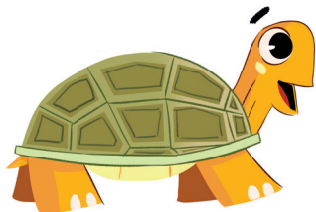


We can plant the seeds...



...in **soil** in the ground  
or in soil in a pot.

Now we need to give  
the seeds water.



Why do they need water?

They have a **food store**  
inside the seed.  
They need water to  
start to use their food  
store to grow.



## Key words

seeds

fruit

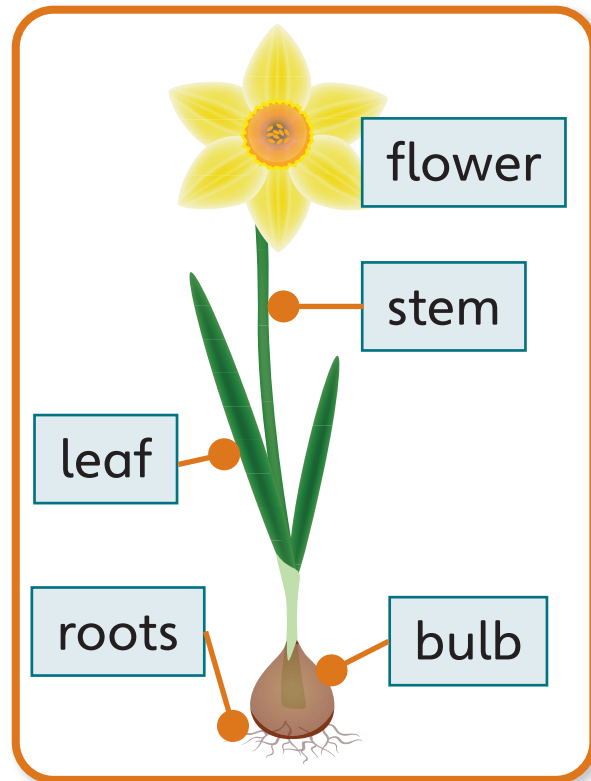
soil

food store

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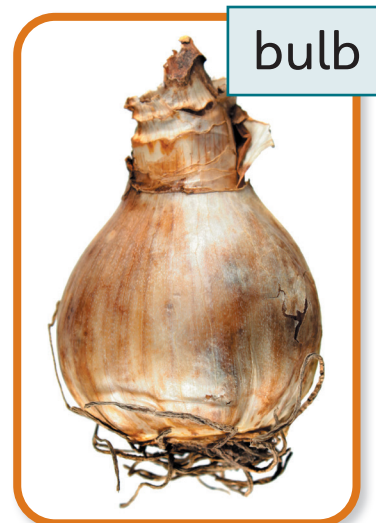


# Bulbs



Some plants grow from **bulbs**.

Bulbs are an **underground** food store for the plant.



Can you see roots?  
Can you see leaves?

The bulb helps the plant to **survive** very cold **weather** or times when there is no rain.

Plants with bulbs can grow very quickly when the weather is better.

These flowering plants grow quickly from their bulbs while there are no leaves on the trees.



Why do they grow when there are no leaves on the trees?



The tree leaves **block** the sunlight from reaching the plants underneath.

The plants use sunlight to make food to store in their bulb for the next year.

## Key words

bulb

underground

survive

weather

block





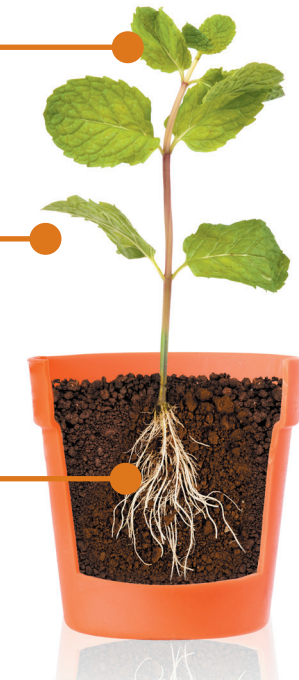
# Healthy plants

Plants need water, air and light to grow well.

air goes in and out of tiny holes in leaves

leaves trap sunlight

water enters the roots



## Water

This plant has been given water. It has been **watered**.

This plant has not been watered. It has **wilted**.



Describe the wilted plant.

## Air

Plants have air all around them on land. Water plants have air in the water around them.

The picture shows air going out of a water plant. Air goes in too.



What can you see?



## Light

Some plants need **bright** sunlight. Some plants need less light. These **tomato** plants are growing towards the light.



Now their leaves can trap more sunlight.

Predict what will happen if someone turns the tray around.

## Key words

watered wilted bright tomato

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# Investigating seeds

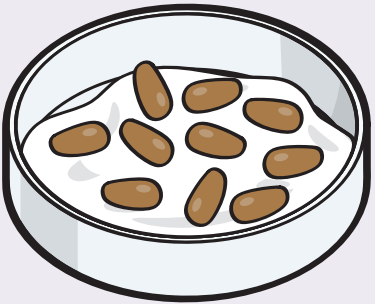
Scientists start an **investigation** by asking a question. It must be a question they can find the answer to by doing an investigation.

**Scientific question:** Do seeds need water to start to grow?

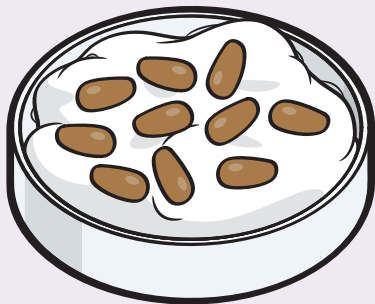
Count some seeds into two equal piles.



Put one pile of seeds on some **wet** cotton wool in a dish.



Put the other pile of seeds on some dry cotton wool in a dish.



Put the two dishes in the same place. Check if the wet cotton wool needs more water.



Predict which seeds will start to grow.

What is a **fair test**?

A fair test means you **changed** just one thing and kept everything else the same for both dishes of seeds.



What was the one thing you changed? Think of three things you kept the **same** in both dishes.

## Key words

investigation

scientific question

wet

fair test

change

same

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# Growing food

crops growing in fields



This farmer has **picked** some of his crops to sell.

Plants can provide food for humans and other animals.

People who grow food are called **farmers**.  
The plants they grow for us to eat are called **crops**.

grain

wheat



Some farmers grow **wheat**.

flour

wheat

bread



Flour comes from wheat grains.  
We use **flour** to make **bread**.

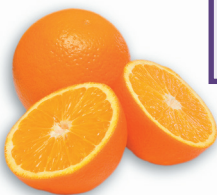
We eat lots of different parts of plants.  
We eat the leaves of bok choy.



**Onions** are bulbs.



Oranges are fruit.



Can you see food you like to eat here?



All these foods come from plants.

Farmers grow olives for us to eat.



We can also use them to make **olive oil**.



## Key words

farmer

crops

picked

wheat

flour

bread

onions

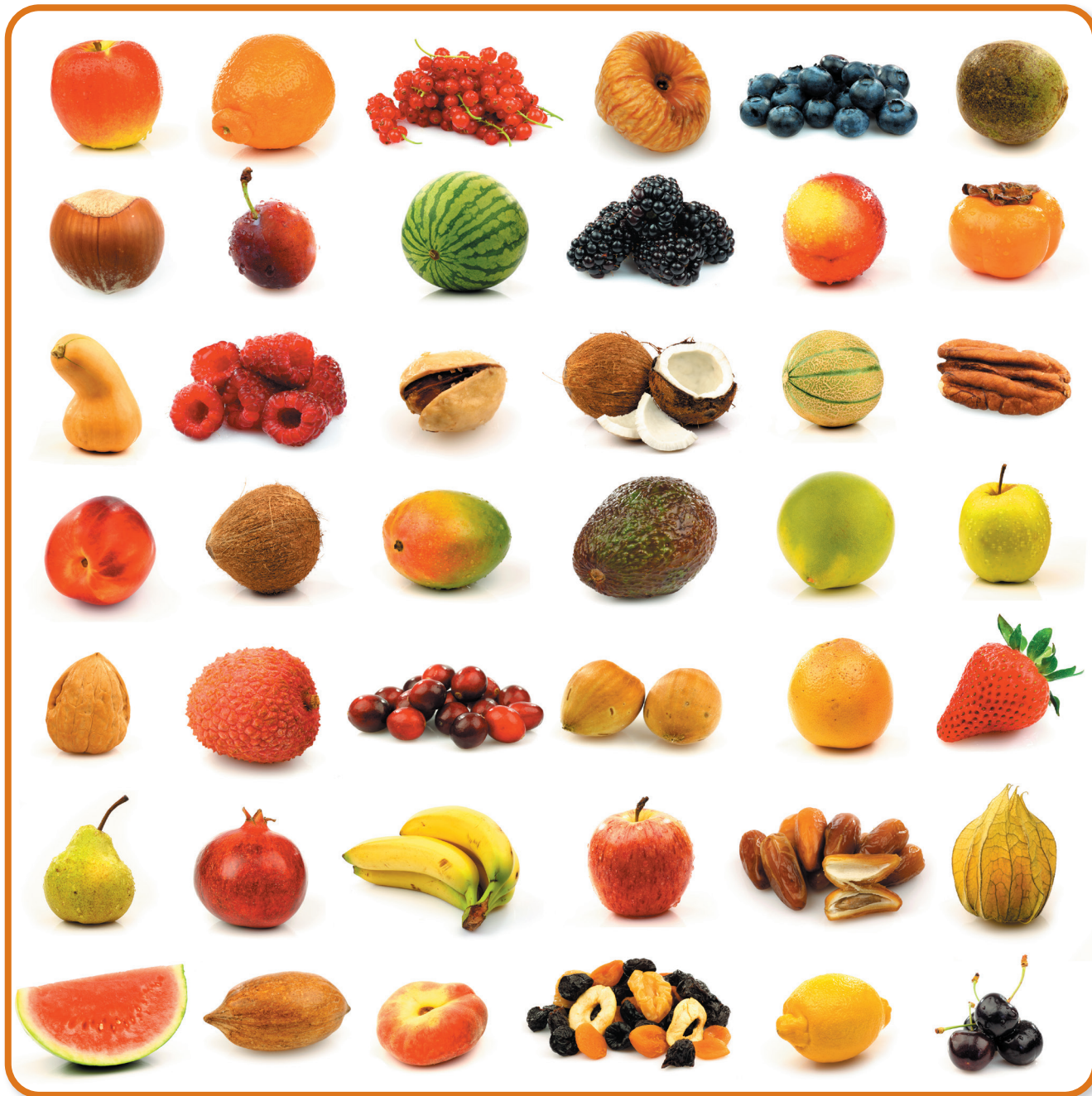
olive oil

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# End of topic questions

The pictures show different foods we get from plants.  
Look at both sets of pictures.



- 1 Name as many of the foods as you can.
- 2 Which of the foods grow where you live?
- 3 Which of the foods do you like to eat?
- 4 Find some fruits.  
Which ones are berries?
- 5 Find some vegetables.
- 6 Find some nuts.

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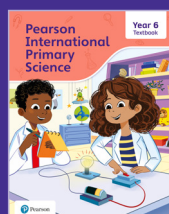
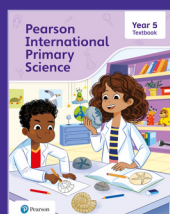
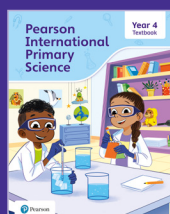
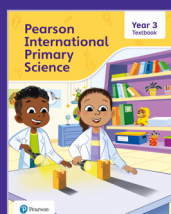
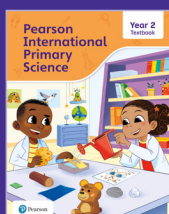
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