



Subject: Y3 Maths
Topic: Mass and Capacity



Key Vocabulary

- mass
- gram
- kilogram
- capacity
- volume
- millilitre
- litre
- lighter
- heavier

Unit overview

In this unit, children will learn how to read a range of scales to measure mass and capacity, including scales with missing intervals. They will measure the mass and capacity of objects and record them as a mixed measurement in kilograms and grams or litres and millilitres. The children add and subtract mass and capacity, using a range of mental and written methods, choosing the most efficient one for each question.

Key Facts – Sticky Knowledge

Measure and Compare Mass

Scales can be used to measure grams.
A gram is a unit of measurement that is used to measure the mass of something.
Grams can be written as g.



Scales can be used to measure kilograms.
A kilogram is a unit of measurement that is greater than a gram. It is also used to measure the mass of something.
Kilograms can be written as kg.

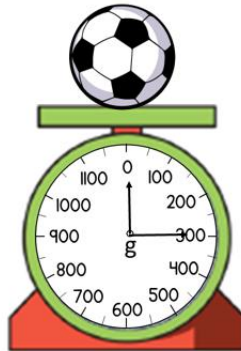


1000g = 1kg

To compare mass, we can use the words 'heavier' and 'lighter'.

Reading Scales

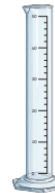
Always look carefully at the numbers on scales or measuring jugs, as they always go up in different increments.



Measure and Compare Capacity

Capacity is the amount of liquid a container can hold.
Volume is how much liquid is in the container.

Measuring cylinders can be used to measure smaller volumes.
Smaller volumes are measured in millilitres.
Millilitres can be written as mL.



Measuring jugs can be used to measure larger volumes.
Greater volumes are measured in litres.
Litres can be written as l.



1000ml = 1l

To compare capacities, we can use the word 'full'.

Add and Subtract

$600\text{ g} + 500\text{ g} = 1100\text{ g}$ or $1\text{ kg } 100\text{ g}$
 $1\text{ l} - 300\text{ ml} = 1000\text{ ml} - 300\text{ ml} = 700\text{ ml}$

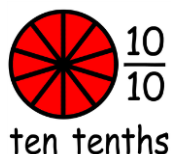
Key Facts

1000g = 1Kg



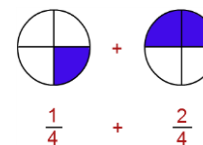
1000 ml = 1 L





Subject: Y3 Maths

Topic: Fractions



Key Vocabulary

- numerator
- denominator
- unit fraction
- non-unit fraction
- equivalent
- tenths
- decimal tenths

Unit overview

In this unit, children will look at whole shapes and quantities and see that when a fraction is equivalent to a whole, the numerator and denominator are the same. They are introduced to tenths as decimals for the first time. The children will compare fractions and decimals written as words, in fraction form and as decimals and link them to pictorial representations. They will find a unit fraction of an amount by dividing an amount into equal groups.

Fractions of Amounts

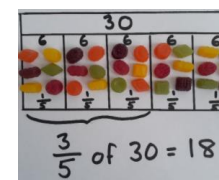
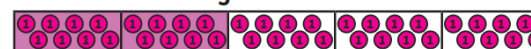
$$\frac{1}{4} \text{ of } 24 = 6$$



$$\frac{1}{3} \text{ of } 72 = 24$$



$$\frac{2}{5} \text{ of } 40 = 16$$



Key Facts/dates – Sticky Knowledge

Recognising fractions

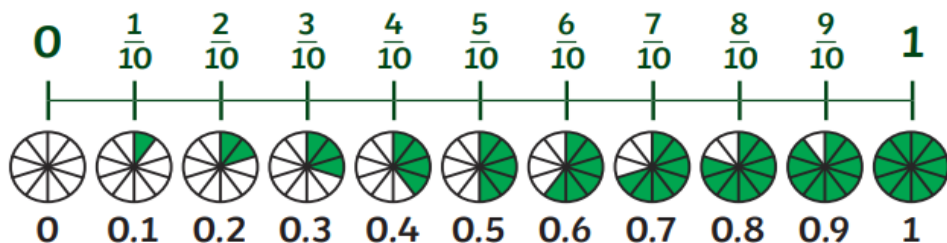


$\frac{3}{8}$

Numerator
How many equal parts of the whole are needed?

Denominator
How many equal parts are in the whole?

Tenths and decimals



Add and subtract Fractions

$$\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$$



$$\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$$



Learning Outcomes

Count up and down in tenths. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators. Recognise and show, using diagrams, equivalent fractions with small denominators. Add and subtract fractions with the same denominator within one whole. E.g one seventh + 3 sevenths = 4 sevenths. Solve problems that involve all of the above



What is a force?

A force is something which changes the direction, speed or shape of an object. Forces can be pushes or pulls.



Pull

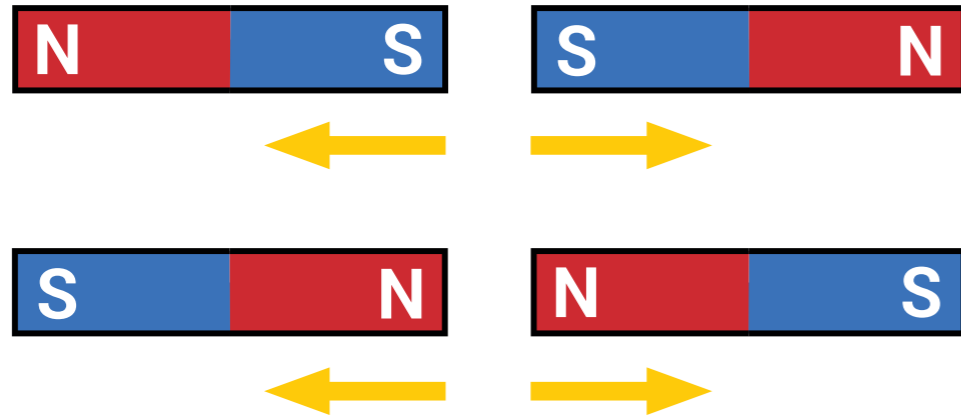
Push

What is a magnet?

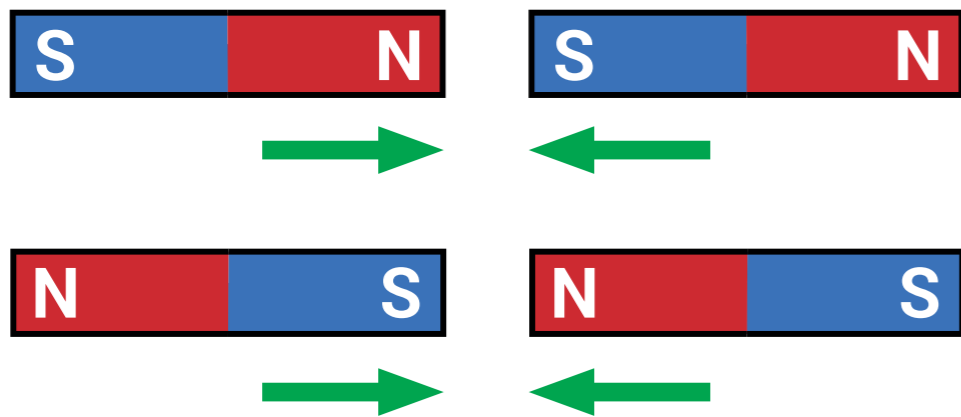
A magnet is an object that has a magnetic field (which is invisible). A magnet has a north pole and a south pole.



How do magnets behave towards each other?



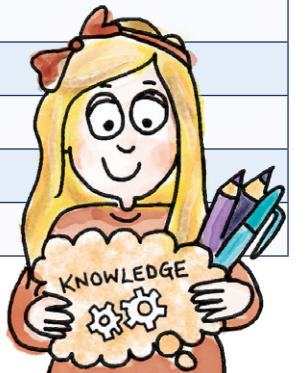
Like poles of magnets will repel each other.



Opposite poles of magnets will attract each other.

Glossary

1	force	something which changes the direction or speed
2	push	a type of force
3	pull	a type of force
4	gravity	a force which pulls objects down to the Earth
5	friction	a pushing force when objects rub against each other
6	distance	the space between two points
7	magnet	an object that can attract magnetic objects
8	lodestone	a naturally magnetic rock
9	south pole	one point on the surface of a magnet
10	north pole	the opposite point on the surface of a magnet
11	attract	a force which pulls towards
12	repel	a force which pushes away
13	magnetic	something which is attracted to a magnet
14	iron	a magnetic metal
15	steel	a magnetic metal
16	alloy	a metal mixture containing more than one metal
17	magnetic field	the area around a magnet which is magnetic
18	magnetised	able to act like a magnet
19	compass	a device using a magnetised point to show direction
20	investigate	to carry out research to find an answer



Which materials are magnetic?

Magnetic materials can be magnetic but not all metals are magnetic. Two examples of magnetic metals are iron and steel. Two examples of non-magnetic metals are gold and silver.

Iron Nails	Steel Paperclips	Gold and Silver Jewellery

Food - Eating seasonally

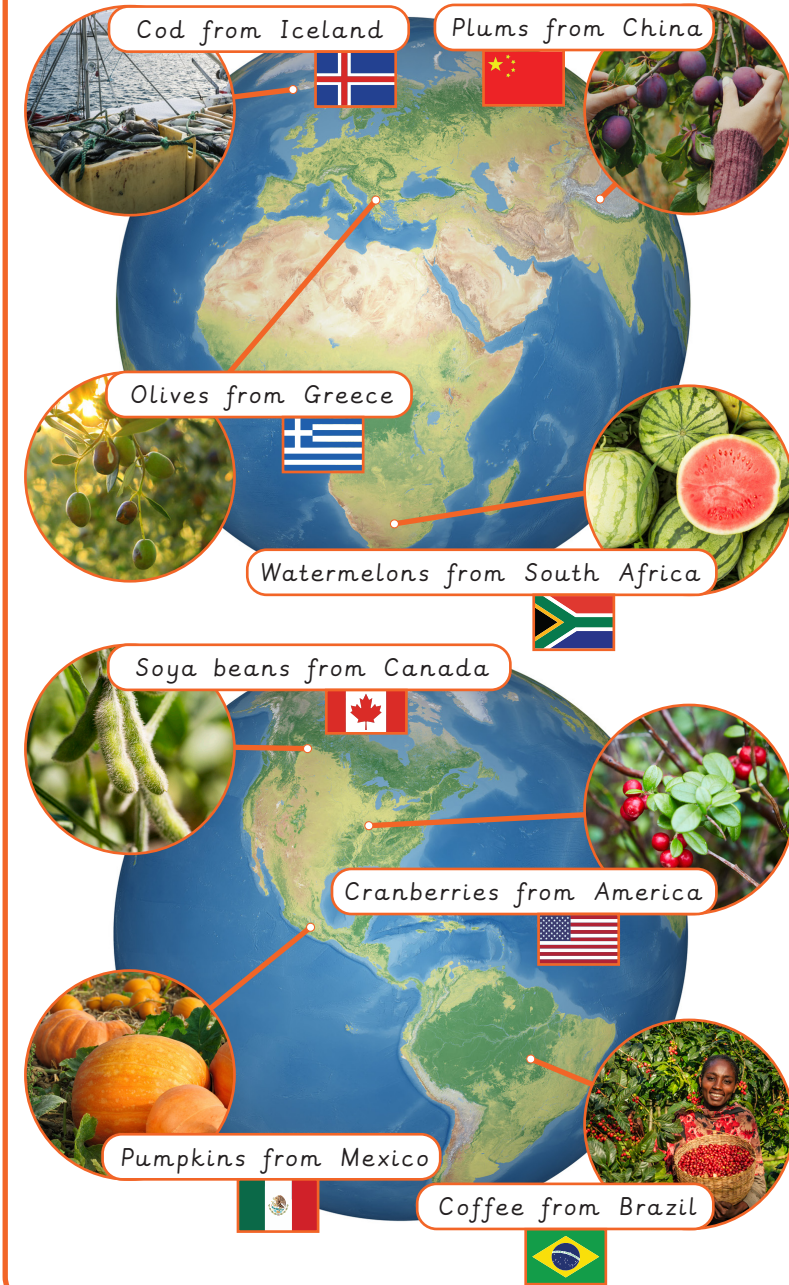
Climate	The weather and temperature in each country in the world, depends on which climate group that country is located. There are five climate groups: polar, temperate, dry, tropical and mediterranean.
Dry climate	Less than 250mm of rain, fog, sleet or snow in total across a whole year.
Exported	When products or produce, such as fruit and vegetables, are sent to another country.
Imported	When products or produce, such as fruit and vegetables, are brought into a country.
Mediterranean climate	Hot dry summers and cooler wetter winters.
Nationality	Belonging to a particular country (e.g. a person with Italian nationality comes from Italy).
Nutrients	Substances in food that all living things need to make energy, grow and develop.
Polar climate	Long periods of extreme cold.
Recipe	A set of instructions for making or preparing a food item or dish.
Seasonal food	Food that can be harvested and is ready to eat in a particular season.
Seasons	The seasons of the year are spring, summer, autumn and winter.
Temperate climate	Mild temperatures, where the summers are not too hot and the winters are not too cold.
Tropical climate	High temperatures and a lot of rain. This is where you will find the world's rainforests.

Fruits and vegetables are full of vitamins, minerals and fibre. These nutrients help us to grow, heal, give us energy and keep us healthy.



Key facts

Not all fruits and vegetables can be grown in Britain. Many foods are **imported** from all across the globe. Here are some examples:





Learning Outcomes

That at Easter we celebrate the presence of the risen Jesus in the world.

Know the story of Emmaus and the story of Breakfast at the Shore.

Understand some reasons why the disciples were so amazed at their meeting with Jesus.

Recognise that in the celebration of the Mass we celebrate the presence of the risen Jesus with us today.



Year 3 Unit H:

Easter I.

Unit overview

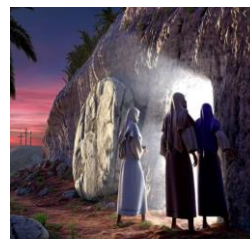
This unit explores the Story of Easter through the Story of Emmaus and the Story of Breakfast at the Shore. It is designed to help the children realise how the Apostles became aware of the presence of the Risen Christ in these events.

Children will have studied the theme of Easter throughout Key Stage 1. This unit will also prepare the children for future Topics on the Eucharist in Year 3 and Year 4.

Bible References:

Lk. 24: 13-35 – The Story of Emmaus

Jn. 21: 1-14 – Breakfast at the Shore



Key Vocabulary

Easter
Emmaus
resurrection
breakfast
shore
breaking of bread
Eucharist

Windows of reflection (things to think about)

Find Galilee on a map of the Holy Land. Why do you think the disciples had returned to Galilee? What is at Galilee and what was the previous occupation of some of the disciples?

Look at the Eucharistic prayer. Which parts of the text remind us that Jesus is truly present in the bread and wine?

Prayer tasks linked to unit and learning beyond the classroom:

Draw pictures of Simon Peter and the disciples. Can you draw or paint your favourite story from the Bible which involves Jesus and his disciples?

Create an Easter PowerPoint, focusing on the symbols of the season, what happened to Jesus and different scripture stories.

Write a prayer to celebrate that Jesus has risen.





Timeline

Minoan Civilization
2200–1450BC

Created a language 'Linear A'
Sea based trade with Egypt and other Mediterranean countries
Many achievements of Minoan architects, artists and engineers

Dark Age
1100–800BC

Collapse of buildings and culture
Greek language no longer written

Classical Period (also known as the Golden Age of Greece)
500–323BC



508BC Development of Athenian democracy
432BC First Persian Invasion
480BC Second Persian Invasion
495–429BC Greek philosophy, architecture and science flourished
431–404BC The Peloponnesian War
334–323BC Conquests of Alexander the Great

Mycenaean Civilization
1600–1100BC


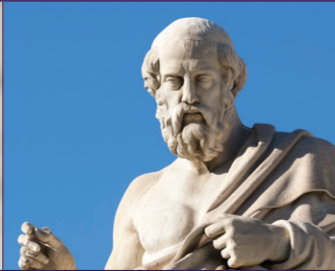

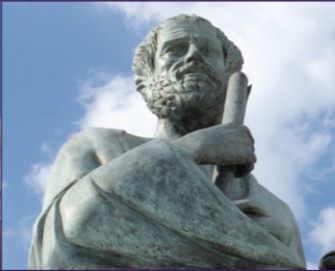
Changed the Minoan language and made a new one called 'Linear B'
Many achievements of Mycenaean architects, artists and engineers

Archaic Period
800–500BC

800BC Rise of Athens and Sparta
776BC The first Olympic Games
750BC Homer writes the Iliad and Odyssey

Significant People

			
Alexander the Great	Plato	Socrates	Aristotle
Alexander III of Macedon is better known as Alexander the Great. He is sometimes known as the ruler of the world and he was one of the greatest military leaders of all time.	One of the foremost influential figures in the world of ancient philosophy. Student of Socrates. He developed a line of thinking around dialogue and debate. Plato was interested in ideas of justice and happiness and many of his ideas are used today.	One of the most influential founders of western philosophy. He developed a style of inquiry which followed constant questioning to achieve deeper thinking. This was called the Socratic method.	Aristotle was a philosopher and writer. He was a student of Plato for over 20 years. He tutored Alexander the Great for several years. He made detailed observations of the world and was an influential thinker of his time.

Glossary

1	acropolis	a walled part of an ancient Greek city usually built on a hill
2	architecture	the art of designing buildings
3	city-states (polis)	ancient Greek cities which had their own laws, governments and armies
4	civilization	a society that is advanced, lives in cities and has government and language
5	culture	the language, art and ideas of a group of people
6	conquest	the invasion and control of a country or place
7	diplomacy	the skill of dealing with people in a sensitive way
8	democracy	a type of government where the people are able to vote
9	ethics	a system of rules on how to behave based on what is thought as right and wrong
10	mountainous	somewhere which has land with many mountains
11	phalanx	a formation where soldiers stood shoulder to shoulder in a rectangular shape and used 4-6m long pikes
12	philosopher	someone who thinks and writes about the meaning of life and living
13	revolt	take violent action against a ruler or government
14	triremes	a large ancient warship
15	truce	an agreement between enemies to stop fighting or arguing for a certain time

What was it like in ancient Greece?

Ancient Greece included the mainland and many small islands. It is surrounded by three seas: the Aegean, the Ionian and the Mediterranean. This meant that the cities and towns relied on being able to trade across the seas. The land was very mountainous and so many parts of Greece were impossible to live in and farm.

Ancient Greece was not ruled by one single individual. It was separated into different city-states, each with its own ruler, systems and rules. Two of the biggest city-states were Athens and Sparta.

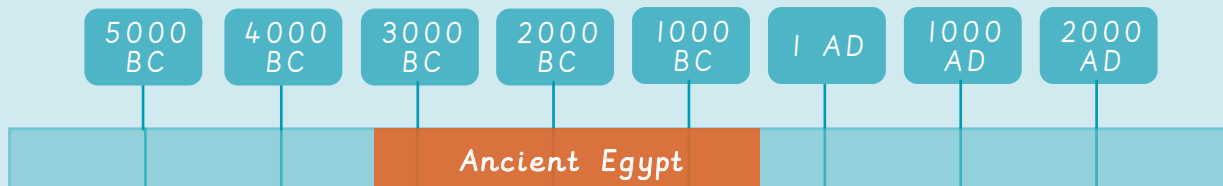


Significant People

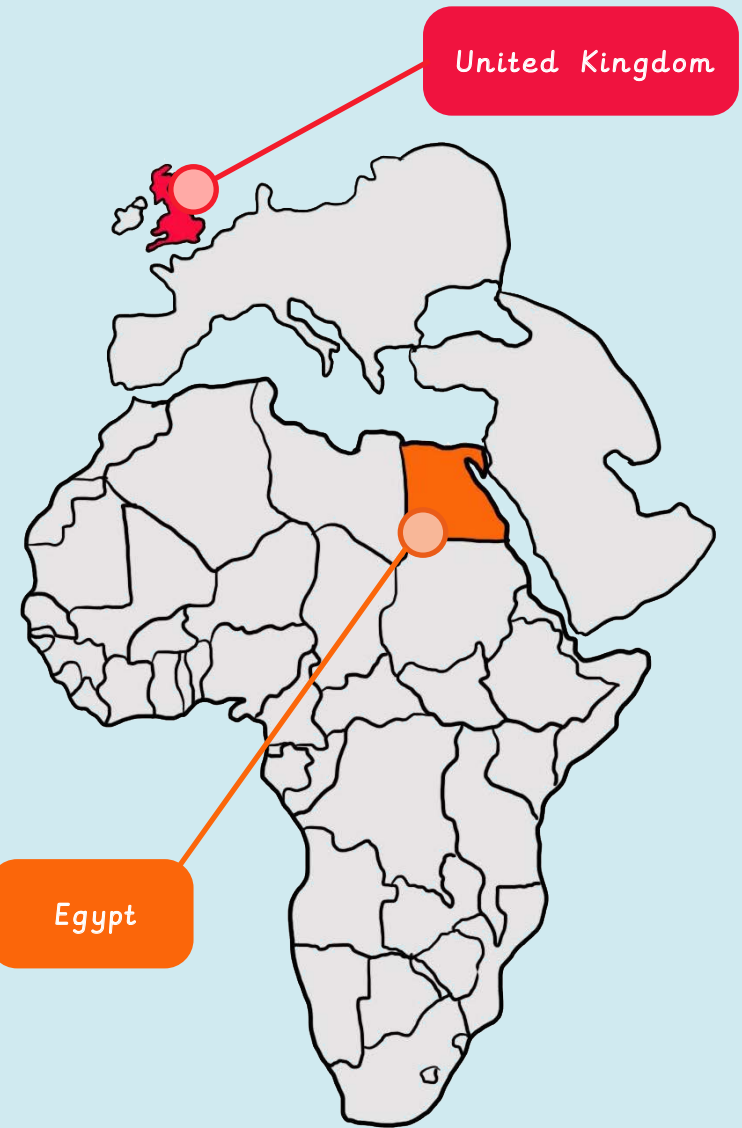
			
Pericles	Hippocrates	Herodotus	Sir Arthur Evans
Pericles became the leader of Athens. He promoted democracy, the arts, and literature. He used his power to create some impressive buildings in Athens.	Hippocrates was a famous Greek doctor. He taught that diseases had natural causes and that they could sometimes be cured by natural means. The Hippocratic oath is used to uphold medical ethics and is still taken by medical students today.	Herodotus was a historian who chronicled the wars against the Persian Empire focusing on research and detail. Herodotus is known as the 'Father of History' as many of his works have survived and tell us about ancient Greece.	British archaeologist Sir Arthur Evans excavated ruins on the island of Crete in early 1900. No-one knew of the Minoans until this point. He uncovered the Palace of Knossos and many other Minoan artefacts.

Ancient	In historical terms it is something from a long time ago and no longer exists
Colour	A feature of everything in the world that is seen through the way it reflects light
Composition	Putting different elements together in a pleasing way
Egyptian	Someone or something decendant from Egypt
Imagery	A collection of images from a range of art forms
Layout	The arrangement of different elements within a given space
Papyrus	A riverside plant used to make paper
Pattern	Pattern is a design in which shapes, colours or lines are repeated
Technique	Skills applied by an artist to produce a particular art form

Where are the Ancient Egyptians in history?



Where is Egypt?



Ancient Egyptian art facts:

The most important people were often the largest object in Ancient Egyptian paintings



People were always painted from the side



Ancient Egyptian paintings are painted in 2D (flat images) with no perception of 3D form



They used white, black, red, yellow, green and blue. These colours came from minerals they would find around the area they lived in



Making papyrus style paper

