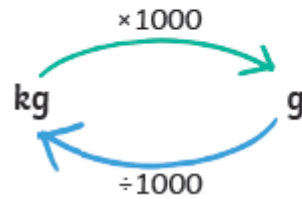


Year 5 and 6 – Converting units

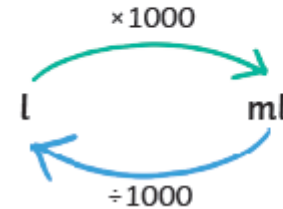
Previously learned vocabulary	
kg	litre
mm	gram
cm	mass
litre	time
ml	millilitre
km	length
New Vocabulary	
capacity	Timetable

Converting mass



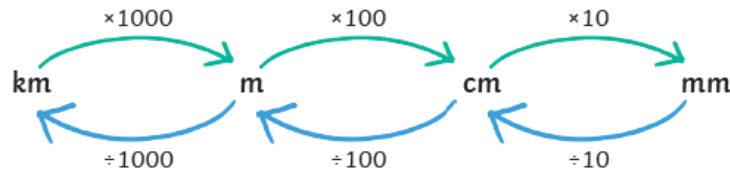
- 1000g = 1kg
- $\frac{1}{10}$ kg = 0.1kg = 100g
- $\frac{1}{4}$ kg = 0.25kg = 250g
- $\frac{1}{2}$ kg = 0.5kg = 500g
- $\frac{3}{4}$ kg = 0.75kg = 750g

Converting capacity



- 1000ml = 1 litre
- $\frac{1}{10}$ l = 0.1l = 100ml
- $\frac{1}{4}$ l = 0.25l = 250ml
- $\frac{1}{2}$ l = 0.5l = 500ml
- $\frac{3}{4}$ l = 0.75l = 750ml
- $\frac{1}{100}$ l = 0.01l = 10ml

Converting length



- 1000 metres = 1 kilometre
- 100cm = 1m
- 10mm = 1cm
- $\frac{1}{10}$ km = 0.1km = 100m
- $\frac{1}{4}$ km = 0.25km = 250m
- $\frac{1}{2}$ km = 0.5km = 500m
- $\frac{3}{4}$ km = 0.75km = 750m

Units of time

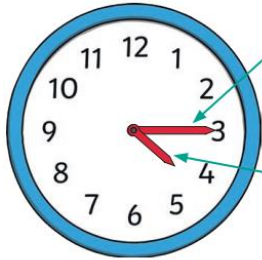
<h3>Minute</h3> <p>1 minute = 60 seconds</p>	<h3>Hour</h3> <p>1 hour = 60 minutes</p>	<h3>Day</h3> <p>1 day = 24 hours</p>
<h3>Week</h3> <p>1 week = 7 days</p>	<h3>Fortnight</h3> <p>1 fortnight = 2 weeks</p>	<h3>Month</h3> <p>January = 31 days February = 28 days (29 on a leap year) March = 31 days April = 30 days May = 31 days June = 30 days July = 31 days August = 31 days September = 30 days October = 31 days November = 30 days December = 31 days</p>

<h3>Year</h3> <p>1 year = 12 months = 52 weeks = 365 days</p>	<h3>Leap Year</h3> <p>1 leap year = 366 days</p>	<h3>Decade</h3> <p>1 decade = 10 years</p>	<h3>Century</h3> <p>1 century = 100 years</p>	<h3>Millennium</h3> <p>1 millennium = 1000 years</p>
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Time - Revision

Measurement vocabulary	
Analogue	Digital
Roman Numerals	Minutes
New Vocabulary	
12 hour	24 hour

Analogue and digital clocks



Minute Hand

The long hand points to the minutes past the hour.

Hour Hand

The short hand points to the hour. If this hand is pointing between the hours, it is the earlier hour of the two.



twelve o'clock



quarter past twelve

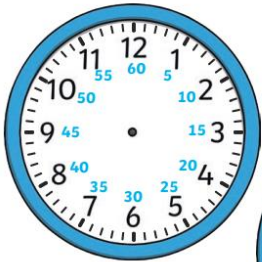


half past twelve



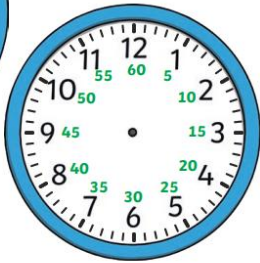
quarter to one

Durations of time



There are **60 seconds** in an minute.

There are **60 minutes** in an hour.



There are **24 hours** in a day



There are **7 days** in a week.





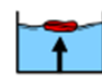
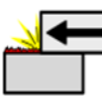



There are **12 months** in a year.

Convert 12 hour and 24 hour clock

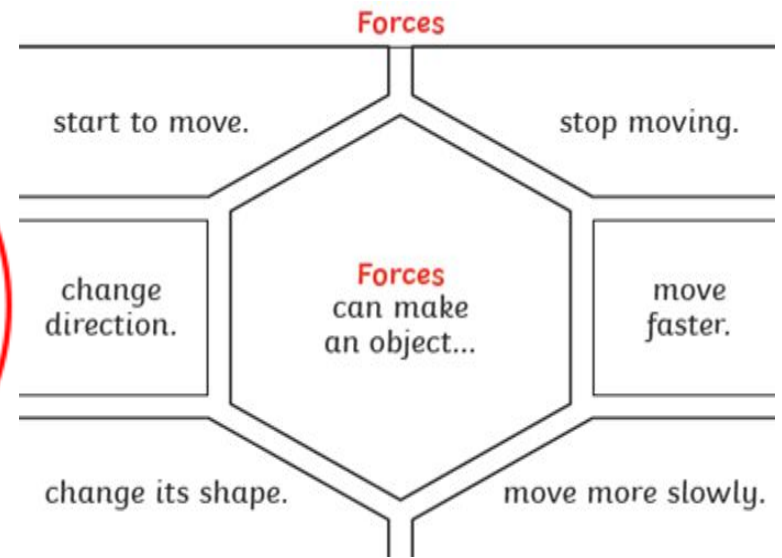
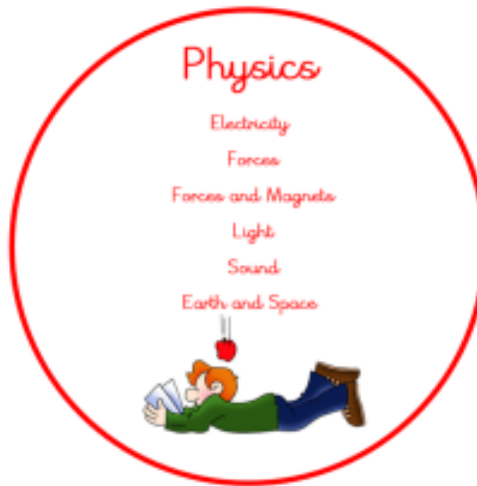
	01:00	1 a.m.	1 o'clock			13:00	1 p.m.	1 o'clock	
	02:00	2 a.m.	2 o'clock			14:00	2 p.m.	2 o'clock	
	03:00	3 a.m.	3 o'clock			15:00	3 p.m.	3 o'clock	
	04:00	4 a.m.	4 o'clock			16:00	4 p.m.	4 o'clock	
	05:00	5 a.m.	5 o'clock			17:00	5 p.m.	5 o'clock	
	06:00	6 a.m.	6 o'clock			18:00	6 p.m.	6 o'clock	
	07:00	7 a.m.	7 o'clock			19:00	7 p.m.	7 o'clock	
	08:00	8 a.m.	8 o'clock			20:00	8 p.m.	8 o'clock	
	09:00	9 a.m.	9 o'clock			21:00	9 p.m.	9 o'clock	
	10:00	10 a.m.	10 o'clock			22:00	10 p.m.	10 o'clock	
	11:00	11 a.m.	11 o'clock			23:00	11 p.m.	11 o'clock	
	12:00	12 p.m.	12 o'clock			00:00	12 a.m.	12 o'clock	



Key Vocabulary

gravity 	A pulling force exerted by the Earth (or anything else that has mass).
air resistance 	A type of friction caused by air pushing against any moving objects.
water resistance 	A type of friction caused by water pushing against any moving object.
friction 	The force that acts upon one surface when it moves against another.
gear 	Wheels with teeth that slot together. When one wheel is turned the other one turns as well.
pulley 	A simple machine that makes it easier to lift or move a heavy object. It includes at least one wheel and a length of rope.
lever 	A simple machine used to increase force. They only have two parts — the handle and the fulcrum (pivot).

Key Information I will learn...



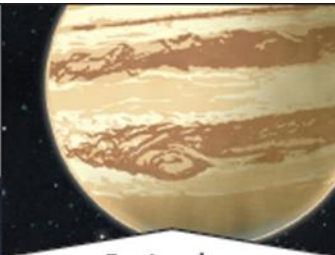
Forces

Examples of forces in action:

Water resistance and air resistance are forms of friction. Friction is sometimes helpful and sometimes unhelpful. For example, air resistance is helpful as it stops the skydiver hitting the ground at high speed. Friction on a bike chain can make the bike harder to pedal so it is unhelpful.

Gravitational forces

The Moon has a smaller **mass** than Earth so the **gravitational pull** on the Moon is smaller than it is on Earth.



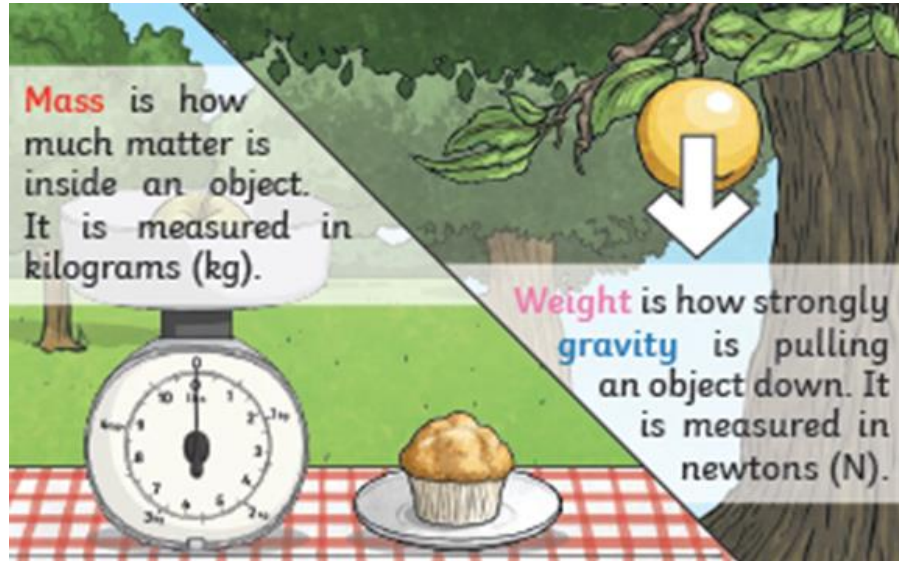
Jupiter has a greater **mass** than Earth so the **gravitational pull** on Jupiter is stronger than on Earth.

Mass, weight and gravity

Mass is how much matter is inside an object. It is measured in kilograms (kg).



Weight is how strongly **gravity** is pulling an object down. It is measured in newtons (N).



Isaac Newton is famously thought to have developed his theory of **gravity** when he saw an apple fall to the ground from an apple tree.



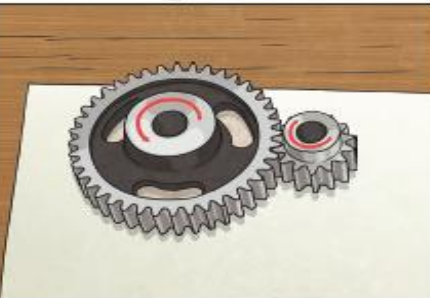
Pulleys, gears and levers

Pulleys



Pulleys can be used to make a small **force** lift a lighter load. The more wheels in a pulley, the less **force** is needed to lift a **weight**.

Gears/Cogs



Gears or cogs can be used to change the speed, **force** or direction of a motion. When two gears are connected, they always turn in the opposite direction to each other.

Levers



Levers can be used to make a small **force** lift a lighter load. A lever always rests on a pivot.

Influential individual

Sir Isaac Newton

Isaac Newton is famously thought to have developed the theory of gravity when he saw an apple fall to the ground from an apple tree.



Must Knows

Forces



Key Facts:

- Friction can stop or slow down a moving object.
- A stationary object will only move when the force applied is greater than the friction, which acts in the opposite direction to the movement.
- Friction produces heat, which we feel when we rub our hands together.
- Friction can cause some materials to wear away, such as pencils.
- Friction has many useful applications, such as in vehicle brakes, using sandpaper and walking on firm ground.
- Air resistance is a friction force between the air and a moving object.
- Air resistance is greater when the surface area of the moving object is large.
- Air resistance increases with speed.
- Water resistance is a type of force that uses friction to slow things down that are moving through water.
- The more streamlined an object is, the less water resistance is acting upon it.
- This means that more streamlined objects will move through water more easily and with less effort.
- Gravity is a non-contact force.
- Gravity is an invisible force that pulls things to the centre of the Earth (or other planets).
- Heavier objects do not fall to the ground quicker than lighter objects.
- Levers, pulleys and gears are all mechanisms that will allow a smaller force to have a greater effect.
- Gears are wheels with teeth that allow a small force to produce a larger force with greater speed.
- A lever is a machine that allows movement of heavy objects.
- Pulleys use a rope or cable through a wheel to allow lifting of heavy objects.



Key Vocabulary	
Biome	Areas of the planet with similar climates, landscapes, animals and plants
Weather	The short term state of the atmosphere
Climate	The long term pattern of weather
Ecosystem	A community of animals, plants and micro organisms which interact with each other and their environment
Temperate	A climate that has mild temperatures
Vegetation	General term for all the plants or plant life of a region
Latitude	Imaginary parallel lines from east to west around the earth
Longitude	Imaginary parallel lines from north to south around the earth

Key Information I will learn...

This is a Geography topic.
We will be working as Geographers.

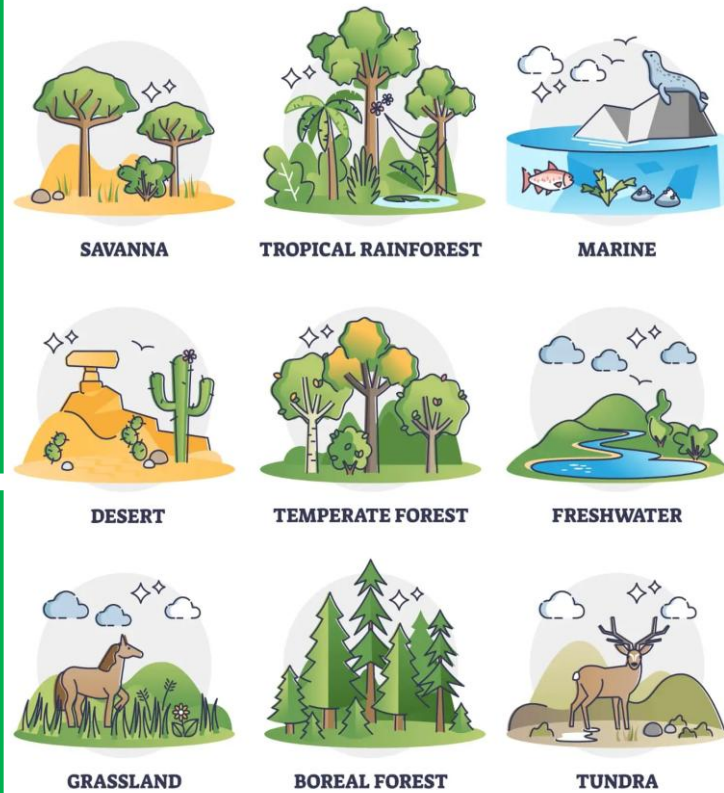
Biomes are areas of the planet with similar climates, landscapes, animals and plants.
What lives in a biome depends on –

- How warm or cold it is
- How dry or wet it is
- How fertile the soil is

Threats to biomes

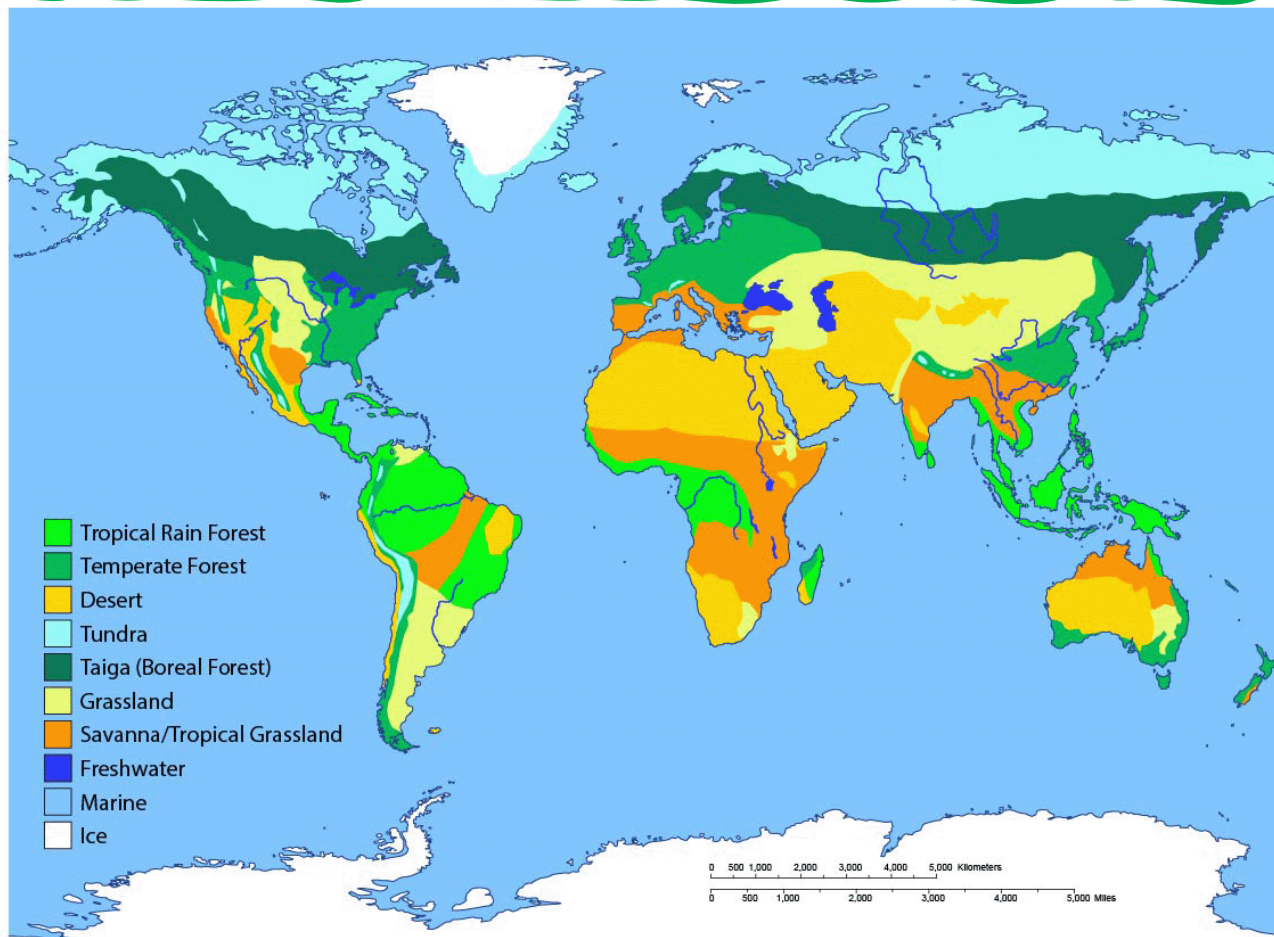
- Climate change
- Global warming
- Deforestation
 - Pollution
 - Farming
 - Wildfires
- Disease and pests
- Floods and droughts

BIOMES



The plants and animals of each biome have traits that help them to survive in their particular biome. Plants and animals that live within smaller areas of a biome also depend on each other for survival. These smaller areas are called ecosystems.





WEATHER

VS

CLIMATE

SHORT-TERM STATE OF THE ATMOSPHERE

LONG-TERM PATTERN OF WEATHER



Rain



Tropical Climate



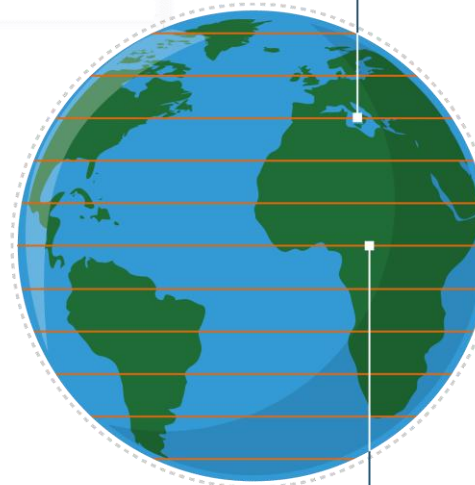
Can change within minutes or hours



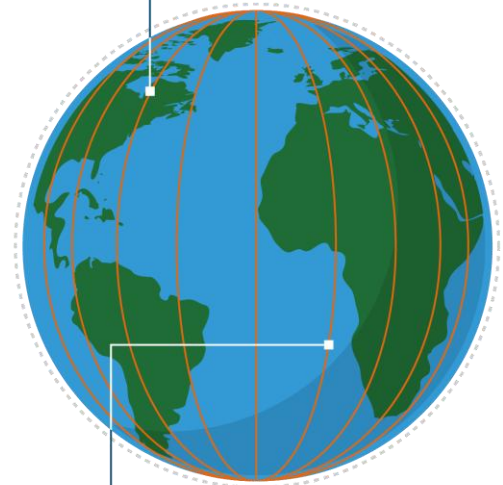
Average weather over many years in one specific place

Line of latitude

Line of longitude



Equator



Prime meridian

A tropical climate is hot all year round and has lots of rain. Brazil has a tropical climate and is home to the largest tropical rainforest in the world - The Amazon Rainforest. Tropical rainforests are close to the Equator, hot and wet all year and dense in plants and animals.

A temperate climate is a climate that has very mild temperatures and does not get extremely hot or cold. England has a temperate climate.

Topic Must Knows

Biomes

Key Facts

- Biomes are areas of the planet with similar climates, landscapes, animals and plants
- The main types of biomes around the world are tundra, grassland, savannah, desert, temperate forest, tropical rain forest and marine
- What lives in a biome depends on – how warm or cold it is, how dry or wet it is and how fertile the soil is
- Weather is the short term state of the atmosphere
- Climate is the long term pattern of weather
- Lines of latitude are imaginary parallel lines from east to west around the earth
- Lines of longitude are imaginary parallel lines from north to south around the earth
- Threats to biomes include; climate change, global warming, deforestation, pollution, farming, wildfires, disease and pests, floods and droughts

Must know quiz score:.....



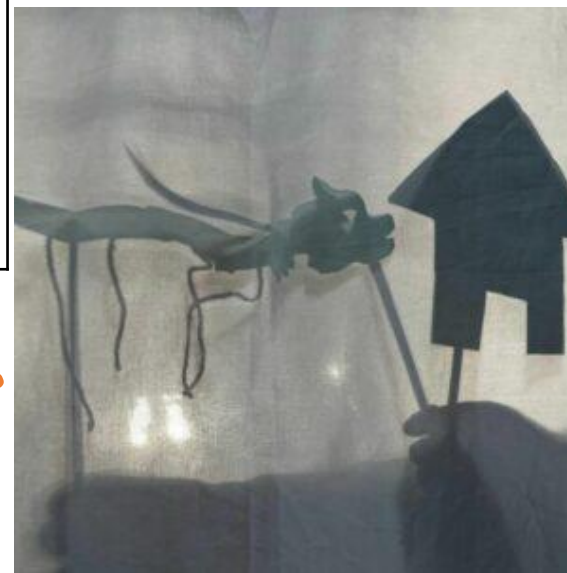
Key Vocabulary

Shadow	A shadow is a dark shape or area produced on a surface when an object intercepts light
Puppet	A puppet is a movable doll or figure, often resembling a human or animal, that is animated by a human (puppeteer) using strings, rods, or hands
Performance	Performance refers to the execution of a task, the functioning of a machine, or the public presentation of art (acting, music, dance)

Key Information I will learn...

Lotte Reiniger

Lotte Reiniger was a German animation pioneer in the early 20th Century. Reiniger's work focused on silhouette animation, she made over 40 films throughout her lifetime.



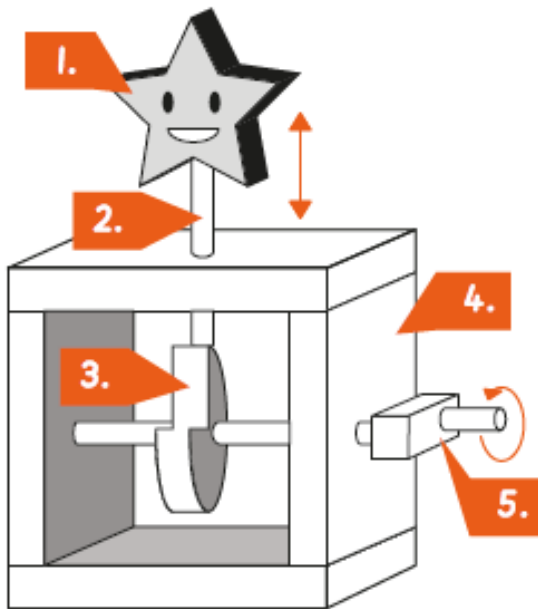
Collaboration and community

D&T - Automata toys



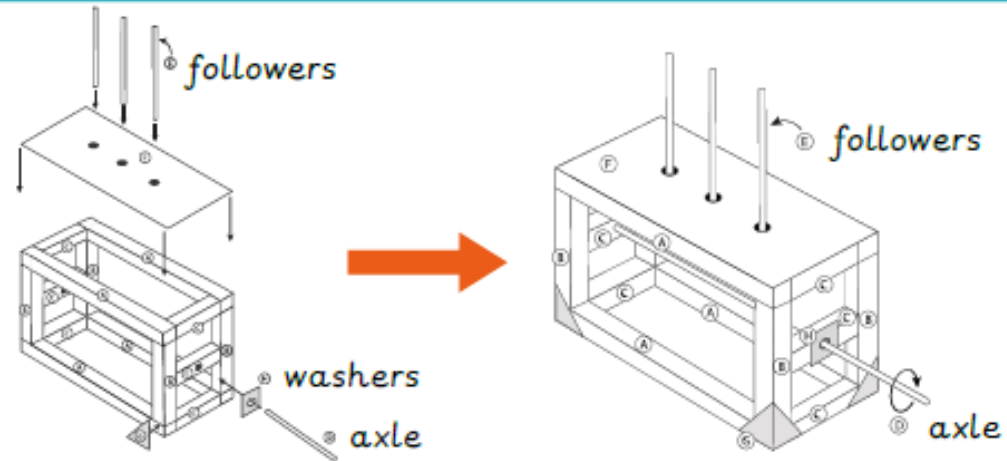
Automata toy components:

1. Character.
2. Follower.
3. Cam.
4. Frame.
5. Axle attached to handle.



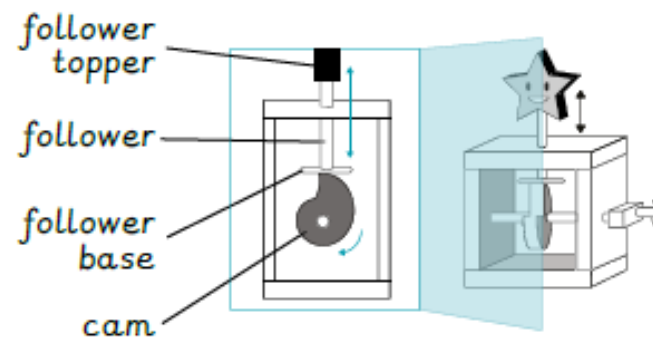
Automata toys use a mechanical system of cams, axles and followers to create movement in a character or object.

Exploded diagrams



Exploded diagrams communicate how the parts of a product fit together. They help when making the product.

Cross-sectional diagrams



Cross-sectional diagrams help designers to communicate how a product works by showing the inside. Imagine a cut down the middle.





Key Learning

- To understand and use basic formatting in a spreadsheet.
- To develop skills in using basic functions in a spreadsheet.
- To create and format charts in a spreadsheet.
- To sort and filter data within a spreadsheet.
- To understand and use advanced functions in a spreadsheet.
- To combine Excel skills to create an effective spreadsheet for a given purpose.

Key Resources



Google Sheets

Key Vocabulary

Cell

A single box in a spreadsheet where data is entered.

Formatting

Changing the appearance of text or numbers.

Sort

Organising data by a rule such as alphabetical or numerical.

Chart

A visual representation of data.

Formula

A set of instructions that tells a spreadsheet what to calculate.

Sum

A function that adds a range of numbers.

Chart Labels

Labels to tell you what the information on a chart is showing.

Function

A built-in formula that performs a specific job automatically.

Workbook

A spreadsheet file containing one or more worksheets.

Column

Vertical lines of cells.
(Lettered)

Filter

To show data that meets a specified criteria by temporarily hiding rows that do not.

Row

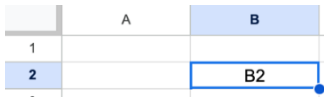
A horizontal line of cells.
(numbered)

Worksheet

A single sheet in a workbook.



Key Images



Cell References



Text Wrapping



Merge Cells

Data

Filter Create a filter

Filter

$fx = A2 + B2$

Formula Bar

Data

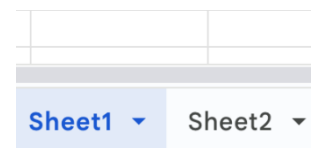
Sort sheet

Sort

Insert

Chart

Insert Chart



Worksheets

Key Questions

What is a spreadsheet used for?

A spreadsheet is a software tool used for organising information and performing calculations on data.

Spreadsheets can be used to organise and analyse data, perform calculations and visualise data using charts.

You can sort or filter the data to find specific information.

How do you successfully insert a chart into a spreadsheet?

You can add a chart by clicking on the 'Insert' tab and then clicking chart.

Chart

You can edit your chart in the 'Chart Editor' which will appear on the right-hand side of the page.

How can you improve your charts to make them easier to understand?

You can add a chart title to make the purpose of the chart clear.

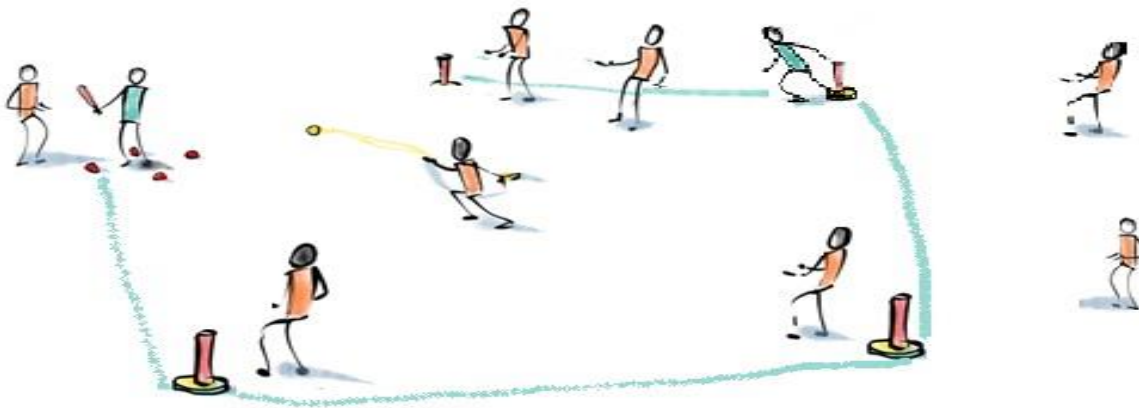
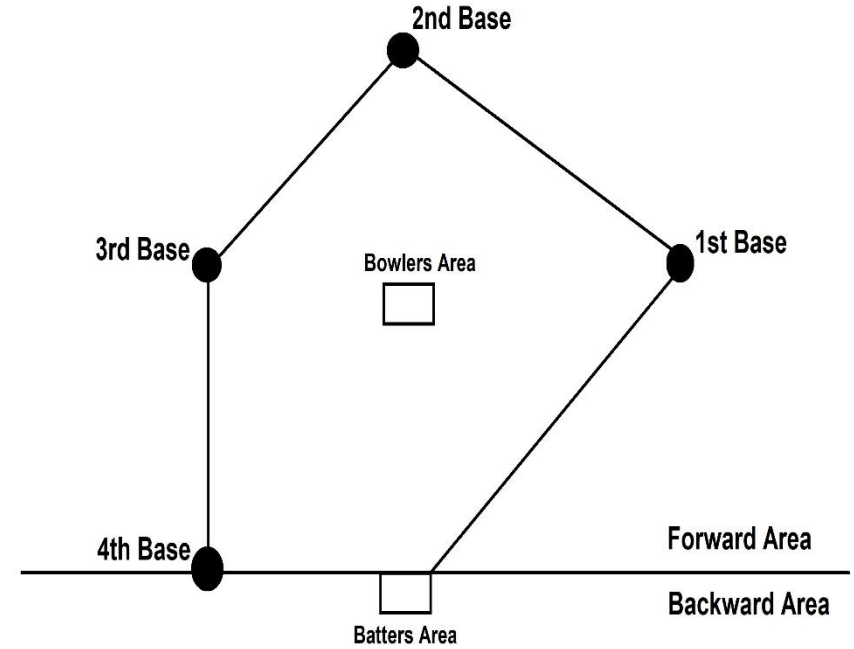
You can add axis titles to explain what the data represents on each axis.

You can use different colours in your charts to communicate the data clearly and effectively.

Rounders is an outdoor team sport played on a circular pitch. 2 teams take turns at batting and fielding. The aim is for the batters to hit the ball (thrown by the fielding team) and then run around a series of bases to score a 'run'. The fielding team aims to get the batter out by catching the ball, or forcing them out at a base.



aiming score batting
power fielding
space technique accuracy



STEPS TO SUCCESS

These are the skills I need to achieve success in UKS2 Rounders:

- To throw a ball and bowl in different ways.
- To play shots into different spaces of the field.
- To retrieve, catch, intercept and stop a ball when fielding.

- To use skills and tactics to outwit opponents when fielding.
- To use skills and tactics to outwit opponents when batting.
- To participate in competitive games.






RE Unit 6.4 How do Jews remember the Kings and prophets in worship and life?

Oak Class – Heptonstall School



Previous vocabulary reminder

Top Vocabulary

	a central figure in Judaism. He was the prophet who led the Hebrew slaves out of Egypt.
	in Judaism, Abraham is known as the founder or first patriarch, and took God's message to the people.
	is a person who is believed to be in contact with God and delivers messages and teachings about God.
	a holy song or poem.
	Jewish declaration of faith.

Repeated Vocabulary

	the building where a Jewish congregation meets for religious worship.
	the departure of the Israelites from Egypt.
	the special book in Judaism.
	the language the Torah is written in.
	is a special promise between God and people.
	the day of rest observed from Friday evening to Saturday evening.
	a celebration of the story of Exodus.
	food that meets the Jewish dietary rules.
	the special family meal at Pesach.

Key Information I will learn...

Shabbat is the Jewish Day of Rest.



Shabbat commemorates God resting on the seventh day after he made the world.

Jews follow the teachings and messages delivered by prophets about God.



These are written in the Jewish Holy Book – The Torah.

Many of the Jewish celebrations including Purim, Pesach and Hannukah are all about escaping or combating persecution.

Shema is the declaration of faith that Jewish people recite twice a day.

King David wrote many Psalms which Jewish people still use in worship today. A Psalm is a poem or song written for God.

Rosh Hashanah and Yom Kippur are festivals about reflecting and making atonement with all the things they have done wrong in the year.






שְׁמַע יִשְׂרָאֵל
Sh'ma Yisra'eil
Hear, Israel

The Ten Commandments

1. Always put God first
2. Do not worship any other God
3. Use God's name with respect
4. Respect God's holy day
5. Respect your parents
6. Do not hurt other people
7. Be faithful in marriage
8. Do not steal
9. Do not lie
10. Do not want what others have

Jewish Prophets

Abraham – founding father of the covenant
Isaac – son of Abraham
Jacob – son of Isaac
Moses – led the Jews out of slavery in Egypt
Jeremiah – foresaw the destruction of Jerusalem
King David – the young boy who killed the giant
King Solomon – son of David, he built the 1st Jewish temple in Jerusalem
Esther – a Jewish queen who saved her people from death at the hands of Hanam

Key Sounds and Spellings				
 accent aigu	The French alphabet has 26 letters, the same as in English. These sound groups should help you with pronouncing the French letters. Remember that accents generally change the way a letter is pronounced.			
 accent grave				
 accent circonflexe	ey sound	eh sound	ah sound	
	b c d g p t v w	f l m n r s z	a k h	
 tréma	ee sound	oo sound	Halfway between 'box' and 'though'	Halfway between 'up' and 'hurt'
 cédille	i j x y	q u	o	e

Key Verbs in the Present Tense			
je suis	I am	je lis	I read
j'ai	I have	j'écoute	I listen
j'habite	I live	je regarde	I watch
je vais	I go	je joue	I play
je porte	I wear	je mange	I eat
j'écris	I write	j'aime	I like

Key Knowledge and Grammar	
Noun	The name of an object, person or place. In French, all nouns are either masculine or feminine .
Adjective	A word that describes an object, person or place. Adjectives in French must agree with the noun they are describing.
Verb	A word that describes an action, how something is or what is happening. When you conjugate a verb in French, you need to use a subject pronoun.
Adverb	A word that adds extra detail to a verb or adjective, e.g. mieux [better], bien [well].
Conjunction	A connecting or linking word, e.g. et [and], mais [but], parce que [because], ou [or].
Preposition	Linking words used for direction, place or time, e.g. à [at/in], en / dans [in], à côté de [next to].

Key Knowledge and Grammar
<ul style="list-style-type: none"> To make things negative in French and say 'not', you use ne... pas either side of the verb. Remember that ne becomes n' before a vowel, e.g. je n'aime pas [I don't like], ce n'est pas... [it's not...]. You use il y a to say what there is or are, e.g. il y a un restaurant [there is a restaurant]. In a negative statement using il n'y a pas [there isn't/aren't], the determiner un / une is replaced by de, e.g. il n'y a pas de piscine [there isn't a swimming pool].

Key Knowledge and Grammar			
	avoir (to have)	aller (to go)	habiter (to live)
I 1 st person singular	j'ai I have	je vais I have	j'habite I live
you 2 nd person singular	tu as you have	tu vas you go	tu habites you live
he/she/it 3 rd person singular	il / elle a he/she has	il / elle va he/she goes	il / elle habite he/she lives
we 1 st person plural	nous avons we have	nous allons we go	nous habitons we live
you 2 nd person plural	vous avez you have	vous allez you go	vous habitez you live
they 3 rd person plural	ils / elles ont they have	ils / elles vont they go	ils / elles habitent they live

Key Knowledge and Grammar

To talk about the near future and say what you are going to do in French, you use **je vais** (I am going) followed by another verb in the infinitive, e.g. **je vais recycler** (I am going to recycle).

To talk about things that you would like to do in the future, use **je voudrais** (I would like) followed by a verb in the infinitive, e.g. **je voudrais ramasser les déchets.** (I would like to pick up the rubbish.).

To say where you went in the past use **je suis allé(e)**, e.g. **je suis allé(e)** au zoo [I went to the zoo]. The word **allé** is called a **past participle** and it has to agree with the subject. So a boy will write **je suis allé** whereas a girl will write **je suis allée**.

The second person singular of **you (tu)** is informal and should only be used to address children, close friends or by an adult to a child. The French use the same word **vous** both for plural **you** and formal **you**. It is very impolite for a younger person to address an adult as **tu** unless they are very close family.

When a noun is plural, we must choose the correct form of the verb. For all-male groups, use **ils**; all-female groups use **elles**; a mixture of male/female or masculine/feminine takes **ils**.



Key Language in Context

Quelle est la date ? What's the date?

<p>Hier, c'était mardi, treize décembre. Yesterday was Tuesday 13th December.</p>	<p>Aujourd'hui, c'est mercredi, quatorze décembre. Today is Wednesday 14th December.</p>	<p>Demain, ce sera jeudi, quinze décembre. Tomorrow will be Thursday 15th December.</p>
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