KNOWLEDGE ORGANISER

YEAR 7
Summer Term

NAME & FORM

£2

English Knowledge Organiser
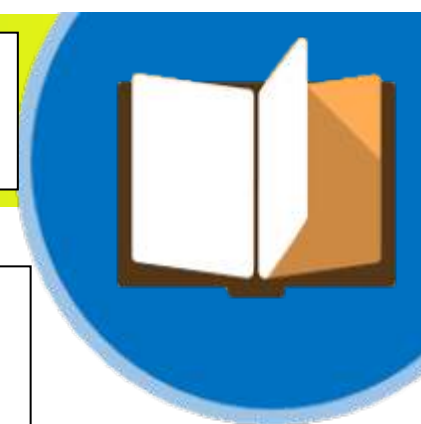
Genre

Overview- This scheme explores different genres: science fiction, dystopian, the Gothic and children's literature.

- When you talk about a book's genre, you mean the **type** or **kind** of book it is. There are lots of different genres.
- In fiction texts (ones which have been made up from a writer's imagination) you might find genres such as science fiction (sci-fi), fairy stories, adventures stories and mysteries.
- Each genre has its own style and set of rules. You wouldn't normally expect to find magic spells in a crime story, for example, or a robot in a fairy story!

Did you know?

Genre comes from the French word for 'type'.

Top Tip:

Some stories can include more than one genre. A story could contain elements of sci-fi and adventure, or myths and scary stories.

Structural Features to Add Some Pizzazz to your Story!

✓ **Varied sentence types**

✓ **Pace**

✓ **Dialogue (speech)**

✓ **Withholding information**

✓ **Shifts in time, e.g. flashbacks, flash-forwards**

✓ **Repetition or patterns**

Genre Definition Match-up: match up each genre to the correct definition

Genre		Definition
Children's Literature		Stories based on imagined future scientific or technological advances and major social or environmental changes.
Gothic		Stories written for children about magical and imaginary beings and lands.
Dystopian		Stories based on horror, death, and at times, romance.
Science Fiction (sci-fi)		Stories that are written in order tor to entertain or instruct young people.
Fairy-tale		Stories that follow a crime (like a murder or a disappearance) from the moment it is committed to the moment it is solved.
Mystery		Stories based on and imagined community or society that is dehumanizing and frightening.
Fantasy		Stories where the main character goes on an epic journey, either personally or geographically.
Adventure		Stories that feature magical and supernatural elements that do not exist in the real world.

The Five Senses

Using the five senses in our creative writing is a great way to 'ramp up' our descriptions, no matter the genre.

When planning your writing, consider:

What can you see? **Example:** I can see the green grass and the tall trees.

What can you hear? **Example:** I can hear the birds chirping.

What can you smell? **Example:** I can smell the fresh scent of the blooming flowers.

What can you feel or touch? **Example:** I can feel the wind blowing.

What can you taste? **Example:** I can taste the fresh air on my tongue.

Creative Writing - Key Vocabulary:
Add in any more in the lines available

Personification- figuratively describing an object or thing with human traits in order to create a vivid image in the reader's mind.

For example: 'The sun smiled down on us.'

Adjective- a word use to describe a noun. For example, 'charming,' 'courageous.'

Metaphor- a comparison between two things that are otherwise unrelated. For example, 'Her eyes were diamonds.'

Simile- comparing two unlike things using 'like' or 'as.' For example, 'cold as ice.'

Synonym- a word that has the same meaning as another word. For example, 'show,' 'convey,' 'reveal.'

Onomatopoeia- the naming of a thing or action through sound. For example, 'buzz,' 'hiss,' 'pitter-patter.'

Spelling bee:

Use the list of words to practise your spellings, ready for your spelling tests!

- **Mystery**
- **Comedy**
- **Horror**
- **Fantasy**
- **Autobiography**
- **Realistic**
- **Sequel**
- **Character**
- **Dialogue**
- **Conventions**
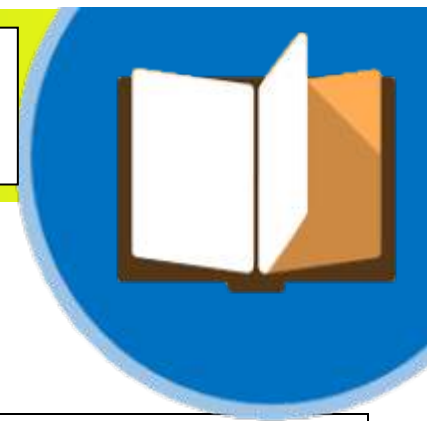
Speaking and Listening

This scheme explores writing and performing a speech for an audience. A speech is a formal talk given to an audience.

Speeches can have different purposes; a purpose is the reason for which something is done or created. For example, your speech will mainly aim to inform and entertain your audience.

There are a number of different engaging language techniques you can use to make your speech achieve its purpose(s), like the ones on the right! For this assessment, you will be aiming to **persuade** your audience to agree with you.

Top Tips for a Highly Engaging Speech!

- ✓ **A powerful opening, main body and conclusion that are easy for your audience to follow**
- ✓ **Use formal language**
- ✓ **Use the language techniques on the right**
- ✓ **Consider what your target audience will find interesting**
- ✓ **Speak with expression**
- ✓ **Move around some, but not too much**
- ✓ **Practice, practice, practice!**

Engaging Language Techniques

Technique	Definition	An example I could use in my own speech
Anecdote	A short amusing or interesting story about a real incident or person.	
Emotive Language	When certain word choices are made to evoke an emotional response in the reader/audience.	
Repetition	When a word/phrase is used more than once for emphasis.	
Hyperbole	Exaggerated statements or claims not meant to be taken literally.	
Adjective	A word used to describe something, e.g. 'beautiful,' 'gigantic,' 'extraordinary,' etc.	
Simile	A comparison of two things using 'like' or 'as,' e.g. 'She was pale as the moon'.	
Metaphor	A figure of speech which describes something by saying that it is something else (although this is not literally true), e.g. "He is an absolute star!"	
Humour	A literary tool that makes audiences laugh, or that intends to induce amusement or laughter.	

To present your speech effectively, use the 5 Ss.

Stride: Walk to the platform with energy and purpose.

Stand: Don't distract your audience in the first instance by moving around- get them to focus on you.

Smile: It relaxes you and helps you engage with the audience.

Speak: Be ready to start speaking- you are in control

Stay: When you have finished, look around, nod or smile and take applause before leaving the stage.

Informative and Persuasive Writing Techniques:

In sections

Numbers

Facts

Opinions

Rhetorical questions

Mainly neutral tone

Pattern of three

Emotive language

Rhetorical question

Statistics

Use of tone

Assertion

Direct address

Exaggerate

Speech structure:

At the beginning: Firstly, primarily, I'd like to begin with, to start with…

To build your argument: Furthermore, on top of this, in addition to, moreover…As a result…

To bring in a counter argument: It could be argued… although some may disagree… understandably, sometimes… outrageously, some say…

To finish: In conclusion… Finally…To sum up…In summary…

Informative Speeches

Examples of Informative speeches.

**Royal speeches.
Often used to inform the public about current affairs.**

TED Talks are informative speeches, often used to inform people about an unknown topic or experience.
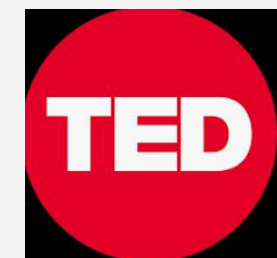
Government Press Conferences give the public important information to keep them safe, or updated.

Picasso inspired self-portrait

Picasso patterns

Portraiture
Year 7 Summer term

In the style of:
When creating a piece of art in the style of an artist it is very important you thoroughly understand their techniques in order to copy them effectively.

Besides using their techniques, you also need to take pride in your work and be as neat as possible. Here are some things to consider:

Why is this a successful example?:
• Appropriate colours have been used
• Interesting and relevant patterns
• Geometric shapes
• Unusual features
• A combination of face on and profile

Watercolour techniques

Sponging

Colour to light gradient

Colour to colour gradient

Flat wash

• Have you used bold colours?
• Have you used patterns in Picasso's style?
• Have you used unusual features?
• Is the scale correct?
• Have you included geometric shapes?
• Is your colour scheme appropriate to the artist?

KEY WORDS AND MEANINGS:

Abstract	Art that does not represent reality accurately, instead the art is made from lines, shapes, colours, forms etc.
Cubism	In Cubist artwork, objects are analysed, broken up and reassembled in an abstracted form.
Surrealism	Art that is made to portray the workings of the unconscious mind as manifested in dreams.
Painterly	The application of paint in a 'loose' or less than controlled manner leaving visible brush strokes in the piece.
Complementary colours	Pairs of colours that contrast with each other more than any other colour
Outline	The line by which an element or object is defined or framed.
Bold	A bold colour or pattern is very bright and noticeable.
Contrast	when opposite elements are arranged together, e.g. Black next to white.
Geometric shapes	Shapes that are are characterised by straight lines, angles and points.
Features	Distinctive attributes or aspects of something. For example, facial features.

Colour code: BLUE= Tier 3 words   ORANGE= Tier 2 words   Look out for colour coding during lessons!

Drama Knowledge Organiser

Keywords explored in this topic

Tableau – A still image

Slow Motion – Exaggerated movement at a slower speed used to highlight an important moment

Characterisation – Using appropriate vocal and physical skills to perform as a character different to yourself

Dialogue – The words spoken between 2 or more characters

Marking the moment – Highlighting the most important part of the scene using a tableau, slow motion, lighting or sound to make it clear to the audience

Body as object – When performers use their body to create an object e.g. a table or a car

Narration - Adding a spoken commentary for the audience about the action onstage.

Charlie & the Chocolate Factory

Tableau Success Criteria

FACIAL EXPRESSIONS

LEVELS

AUDIENCE AWARENESS

GESTURES

STILLNESS

PEER EVALUATION - WAGOLL

Tom's group used tableau effectively. I could see that Tom was using facial expressions such as wide eyes to portray the character of Augustus. He projected his voice so I could clearly hear him. In order to improve, Tom could use an accent to help with his characterisation.

Words to describe Charlie Bucket:
'The Hero', Respectful, Resilient, Happy

Words to describe Veruca Salt:
Whiny, Bratty, Spoilt, Ungrateful

Words to describe Mike Teavee:
Lazy, Addicted, Arrogant, Snobby

Words to describe Violet Beauregarde:
Competitive, Spoilt, Arrogant, Careless

Words to describe Augustus Gloop:
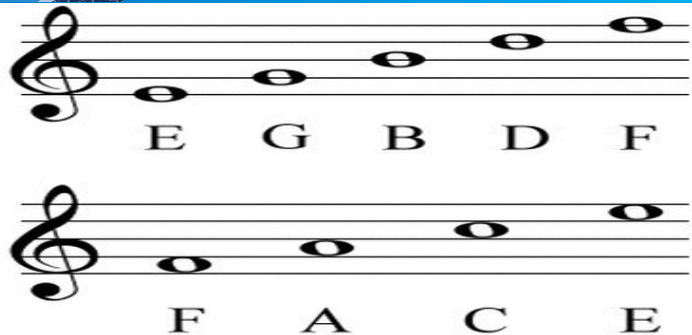Greedy, Silly, Brutish, Lazy

Keywords to recap and use

Pitch Pace Pause Tone Volume Accent Gesture Posture Facial Expressions Projection Diction Thought Track Multi-role Split Focus Audience

Evaluative words: successful improve effective captivating interesting focus

KEY WORDS: Treble Clef   Staff   Notation   Lines   Spaces   Rhyme   F-A-C-E   Ledger Lines   Pitch   Chord   Ascending /Descending   Semibreve   Minim   Crotchet   Quaver   Rest

G F E D C B A G F E D C B A G F E D C B A G F E D C B A

E G B D F

F A C E

For the **treble** clef, people use acronyms to remember the **line** letter names. We say 'A rhyme for the lines'

For example:
        Every **G**ood **B**oy **D**eserves **F**ootball
        Every **G**reen **B**us **D**rives **F**ast

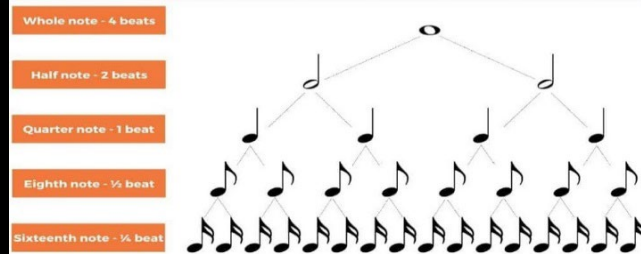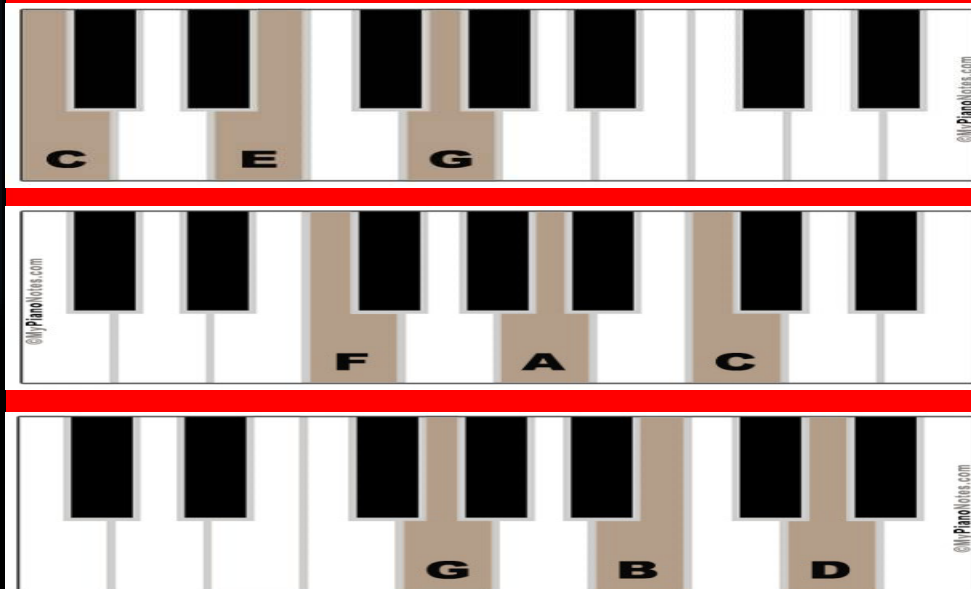See if you can make one using the letters **E, G, B, D,** and **F** that is easy for you to remember!
E   G   B   D   F

The **space** notes are easy to remember. 'If it's in a **space** then spell out **FACE**'

Keyboard Work 1

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Whole note - 4 beats
Half note - 2 beats
Quarter note - 1 beat
Eighth note - ½ beat
Sixteenth note - ¼ beat

Adding chords: Using the LEFT hand

C   E   G

F   A   C

G   B   D

REMEMBER: Always name notes from the bottom to the top
**NOTICE: If you move line-space-line-space the alphabet appears! Only letters A-G**

C# D♭ D# E♭   F# G♭ G# A♭ A# B♭   C# D♭ D# E♭   F# G♭ G# A♭ A# B♭   C# D♭ D# E♭   F# G♭ G# A♭ A# B♭

C D E F G A B C D E F G A B C D E F G A B C D E F G A B
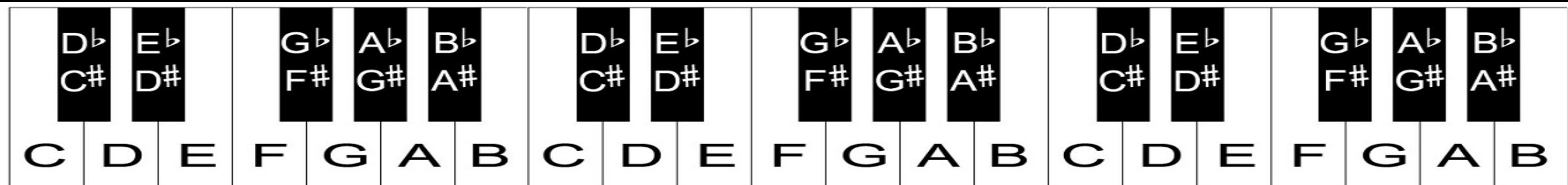
| KEY WORDS AND MEANINGS: **Tier two words in red. Tier three words in blue.**	
Treble Clef	A musical sign that indicates the pitch is suitable for RIGHT HAND piano or instruments such as flute, violin and trumpet.
Chord	A collection of notes played at the same time
Melody	The tune
Rhythm	Different lengths of notes create a pattern called rhythm. This fits into the steady beat or pulse
Stave/ Staff	The five lines that music is written on
Sharp	Raising a note by one semitone
Flat	Lowering a note by one semitone
Pitch	How high or low the sound is
Ascending	Rising in pitch
Descending	Falling in pitch
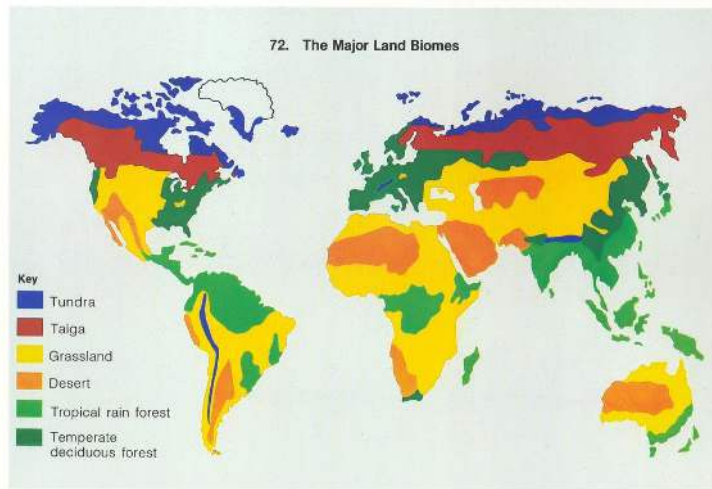
A **biome** is a large ecosystem. The Earth has many different biomes, with each one containing many different flora and fauna that have adapted to the environment.

72. The Major Land Biomes

Key
- Tundra
- Taiga
- Grassland
- Desert
- Tropical rain forest
- Temperate deciduous forest

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Areas of high pressure:
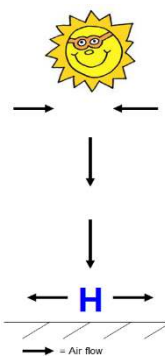
1. Air sinks
2. As it sinks, the air warms up.
3. Water droplets evaporate......
4. ......leaving clear skies and no precipitation.

H

→ = Air flow

Areas of low pressure:
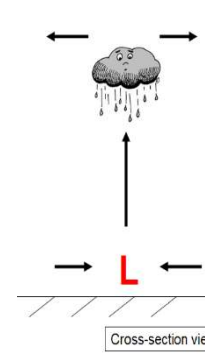
1. Air rises
2. As it rises, the air cools.
3. Water vapour condenses to form clouds.
4. Precipitation occurs.

L

Cross-section view

The **permafrost** is a frozen layer of soil and dead plant material that in some places extends to almost 450 metres under the surface.

An example of a biome is the tundra. This biome is found in the North of Europe and North America, at very high latitudes. This biome is located north of the UK and north of the equator.

Tundra biomes form in areas of **high pressure**, where air is **sinking**. The **temperatures** stay **below 0°C** most of the year. The **ground remains frozen**, apart from a few centimetres of thaw in the summer. The **precipitation** is gentle and very low (due to it being in an area of high pressure), mainly falling as snow. The winds can be very strong. **Summers** may have many hours of continuous daylight. **Winters** are long, dark periods. The **climatic conditions** mean that the landscape is quite bare, with little vegetation.
It is these harsh conditions of a tundra biome, which cause it to be classed as an extreme environment.

A challenge of the tundra is...	This challenge affects...	This is a challenge because...
The extremely harsh climate, with very cold temperatures, very low levels of precipitation and high winds	Anything which lives in the tundra, such as flora, fauna and people.	Plants and animals have to be very well adapted to survive in the tundra due to this harsh climate.
Global warming which can melt the permafrost	The permafrost layer of the ground which affects the flora that grow and the fauna that can survive in the tundra.	As the permafrost melts, shrubs and spruce that could previously not take root in the permafrost now dot the landscape, altering the habitat for native fauna.
Global warming which can melt the permafrost	The Earth's climate	As the permafrost melts, it no longer acts as a carbon sink and releases CO2 into the atmosphere, contributing to global warming.

Alaska is located on the continent of North America. Alaska is to the East of Russia and the West of Canada.
Alaska is located North West of the UK.

Oil and Gas in Alaska

Oil and gas is non renewable and the world is running out. Without oil and gas, the world will struggle to generate power.

In Alaska, the largest energy source is oil and gas with huge amounts located in Prudhoe Bay oil field.
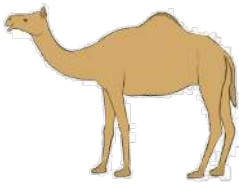
In 1977, a pipeline, called the Trans-Alaskan Pipeline, was completed which transport this oil 1287km South from Prudhoe Bay to Valdez.

Once the oil reaches Valdez, it is then transported by tanker to the mainland USA.

Advantages and disadvantages of exploiting the tundra

The oil and gas industry in Alaska employs 110,000 people. This means that 110,000 people can earn a source of income

If pipelines are built directly onto the tundra or are buries, they can melt permafrost, impacting the fauna and flora which has adapted to life in the biome.

The pipeline transports 212 million barrels of oil every year, bringing in huge amounts of money.

Machinery used to extract oil can disrupt local way of life. For example, the machinery could scare away wildlife which people rely on for hunting.

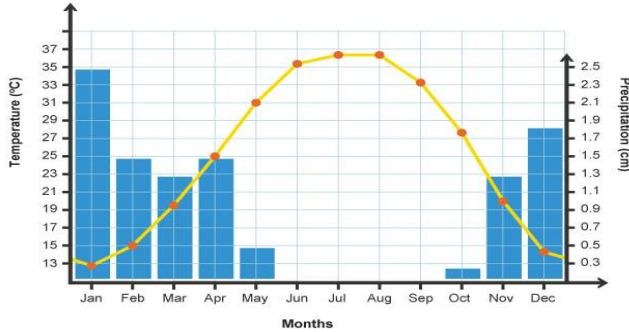Cotton grass is adapted to live in the tundra where it is extremely cold, dry and windy

Camels are adapted to live in the hot desert where temperatures can reach up to 53°C and there are very low levels of precipitation

This is a climate graph for a hot desert biome. The hottest months are July and **August at 36.5°C**. The wettest month is **January at 2.29cm**. The driest months are **June, July, August and September** where there is on average, **no precipitation**.

Why are deserts so dry?

Deserts form in areas of **high pressure**, where **air sinks**. As air sinks, it **warms** up and **water droplets evaporate**. Therefore, **clouds do not form** so there is very **little precipitation.**

Adaptations of cotton grass to the tundra:

1. Small seeds because these can then be easily dispersed by the wind.
2. Narrow leaves to reduce water loss by transpiration
3. Short in height to protect it from the wind and to allow it to be covered by snow in Winter, protecting it from the extreme cold

Adaptations of camels to the hot desert:

1. Humps which store fat because this allows them to go weeks without eating food
2. They can go weeks without drinking water because they can drink gallons in one go, this shows they are adapted to the arid (dry) conditions
3. Their body temperature can change because this allows them to reduce water loss from sweating

Desert Name	Thar Desert (World's seventh largest desert)
Location	Covers 200,000km squared on the border between Pakistan and India
Climate	Temperatures can reach as high as 53°C and there is less than 230mm of rainfall per year
Opportunities	**Mineral extraction** • The removal of mineral resources from Earth • For example, there are large amounts of gypsum which can be sold and used to make plaster **Tourism** • People visit the desert for recreation and their own leisure • There is an annual festival in the Thar desert which attracts thousands of people
Challenges	**Melting tarmac** • The extreme temperatures can cause tarmac roads to melt • This limits accessibility as people struggle to move between areas **Water insecurity** • As the population of the Thar desert has increased and agriculture and industry have developed, water has become a scarce resource

Climate change refers to changes in the Earth's average temperature and precipitation. In recent years, temperatures have been increasing more rapidly than in the past. Global temperatures are around 1 °C higher than they were around 300 years ago.
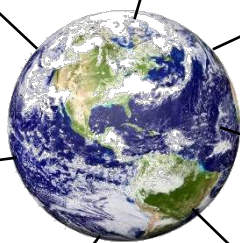
Effects of climate change:

Fewer deaths or injuries due to cold weather

Some areas may experience desertification

Hazards such as landslides, floods and avalanches may become more common in mountainous areas.

Previously frozen regions may be able to grow crops in a milder climate.

Low-lying islands may disappear completely as sea levels rise.

Energy consumption may go down in densely populated parts of the world as temperatures increase.

Climates may become drier and more prone to droughts, leading to starvation and civil war.

Desertification: This is the process that sees productive land turned into non-productive desert. It usually affects dry areas on the edge of deserts, e.g. The Sahel, south of the Sahara Desert in Africa.

Effects of desertification:

Lack of vegetation cover for holding soil together and for grazing.

Increased soil erosion

Crop Failure

Fewer plant and animal species

Land unable to support population so people are forced to migrate

Importance of the ocean in solving the climate crisis:
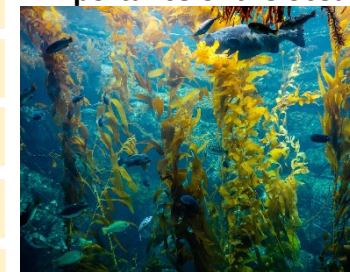
Kelp is also very efficient at absorbing and locking away the carbon dioxide in the atmosphere. It is estimated that around 200 million tons of carbon dioxide are locked away by kelp every year

Seagrass has incredibly long roots, which draws carbon down deep into the seabed and traps it for millions of years. Seagrass meadows trap over 10% of blue carbon.

A mangrove forest can store up to ten times more carbon, and for millions more years, than the same area of land-based forest, so it is very important to protect these habitats

Certain gases, known as **greenhouse** gases collect in the atmosphere. These gases, which occur naturally in the **atmosphere** include **carbon dioxide** , **methane** and **nitrogen oxide** . Greenhouse gases let the sun into the atmosphere but they trap the heat that **reflects** back up into the atmosphere. In this way, they act like the walls of a greenhouse. The greenhouse **effect** keeps the Earth's **temperature** comfortable. Without it, the temperatures of Earth would be cooler by about **33°C** . Since the **industrial revolution**, in the late **1700s** and early **1800s** people have been releasing large quantities of **greenhouse gases** into the atmosphere. The amount has **skyrocketed** in the past **century** . Human activities which release greenhouse gases include **cattle** farming, burning **fossil fuels** and driving **cars** . With more greenhouse gases in the **atmosphere** , this has caused global **temperatures** to increase as more heat is trapped.

Natural Greenhouse Effect

SUN — More heat escapes into space — Solar Radiation — Re-radiated Heat — Less re-emitted heat — Greenhouse Gases — Atmosphere

Human Enhanced Greenhouse Effect

Less heat escapes into space — SUN — More re-emitted heat — Re-radiated Heat — Solar Radiation — More Greenhouse Gases

The Sahel lies at the Southern edge of the Sahara desert. This is one of the most vulnerable places to drought on earth. The Sahel is semi-arid, receiving between 250 and 450 mm of rainfall in total in an average year, however it only falls in one or two months. This region provides Africa with food and cash crops such as millet and cotton.

Causes of desertification in the Sahel:

- Deforestation for fuel wood
- Overgrazing
- Climate Change

Is there a future for the Sahel?

THE GREAT GREEN WALL

The Great Green Wall is an African-led project with an epic ambition: to grow an 8,000km natural wonder of the world across Africa's entire width. Its goal is to provide food, jobs and a future for the millions of people who live in a region on the frontline of climate change. The green wall is helping to reverse desertification in the Sahel by protecting the soil from soil erosion.

The Aral Sea

From this...
..to this.

The Aral Sea is a lake located between Kazakhstan in the North and Uzbekistan in the South which began shrinking in the 1960s

In the 19th century, the Aral Sea was the World's fourth largest lake and was important in the fishing industry.

→

However, from the 1930s, mismanagement of the water (to divert water for irrigation of cotton fields in the area) resulted in the major shrinkage of the Aral Sea. This resulted in the loss of 40,000 fishing jobs and any remaining water is heavily contaminated and salty.

→

In the last 50 years, the water level has dropped by 16 metres. When wind blows over the now dry lake bed, dust storms spread toxic waste over a large area, which impacts people's health across Asia, causing illnesses such as cancers, tuberculosis and eye diseases.

To a small / medium / large extent I think that...

Climate change refers to changes in the Earth's average temperature and precipitation.

Against climate change being good
- ☹ Sea level Rise
- ☹ Desertification
- ☹ Increased natural hazards

To what extent is **climate change** a **good** thing?

Reasons for (☺) and against (☹) climate change being good

For climate change being good
- ☺ Energy consumption may go down
- ☺ Fewer deaths and injuries due to cold weather
- ☺ Previously cold climates may be able to grow more crops

History Knowledge Organiser

Topic 5: Medieval Medicine

What was Medieval medicine like?
Before the discovery of germs they were very different ideas on what caused sickness:

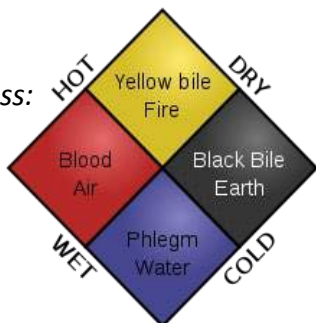*HOT — DRY*
Yellow bile / Fire
Blood / Air
Black Bile / Earth
Phlegm / Water
WET — COLD

Four Humours – *the idea behind this theory was that the body was made up of four different parts and if there was an imbalance then the person would be ill.*

Supernatural – *many believed in superstitious causes of disease. Ghosts or witches could cause somebody to fall ill. If the planets were in the wrong position then it could cause people to become unwell.*

Religion – *people in Medieval times believed if they were good then God would reward them. If they were sinful then God would punish them with disease. Some believed the plague was God ending all life on Earth.*

Miasma (bad smells) – *Medieval towns were very filthy places and some people believed bad smells caused by butchers, tanners and other businesses could pollute the atmosphere and cause disease.*

What was the Black Death?
*The Black Death is also known as the **bubonic plague**. It was spread by fleas carrying a deadly type of bacteria. The fleas, spread by rats, would bite humans. Symptoms included swellings, black marks on the skin, high fever, and eventually death.*

What cures did people use for the Black Death?
*The **barber surgeons** and **monks** of Medieval Europe tried to do what they could to treat the disease. It killed 30-60% of Europe. Those who did survive were often left disfigured and ill. Treatments included:*

Prayer – *they believed God would forgive them and their disease might go away. Some extreme Christians known as **flagellants** would even hurt themselves to be forgiven.*

Bloodletting – *bloodsucking leeches and medical tools would be used in an attempt to drain blood from a sick patient.*
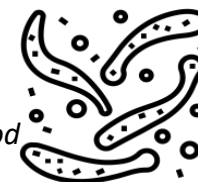
Natural cures – *herbs and plants found in nature were used to try and relieve the symptoms*

What were the consequences of the Black Death?
The Black Death arrived in England in 1348 and lasted until 1350. However it caused lasting changes:

Plague epidemics – *every few years cases of plague would return and many more would die of disease*

Starvation – *farmland was abandoned and villages were deserted. Crops were not looked after and so there was a decrease in food leading to starvation.*

Increase in food price – *those who did still have crops to sell started to charge people more money for their goods.*

Increase in crime – *people began to live as if they were living their last day. They drank heavily and broke the law.*

Why did the peasants challenge the Feudal System?
The Black Death had killed lots of peasant workers. Fewer peasant workers had to work even harder to collect food to feed their lords. Many of these did not receive wages. In 1381 peasants rebelled in the Peasants Revolt. They marched on London, met with King Richard II and left believing that Richard II would give them more power and wages.

The King went back on his word and killed the peasant leaders. Over time unpopular taxes were stopped and lords of villages had to pay their peasants more and charged them less rent. Within 50 years peasants were allowed to buy their own freedom and move around the country freely.
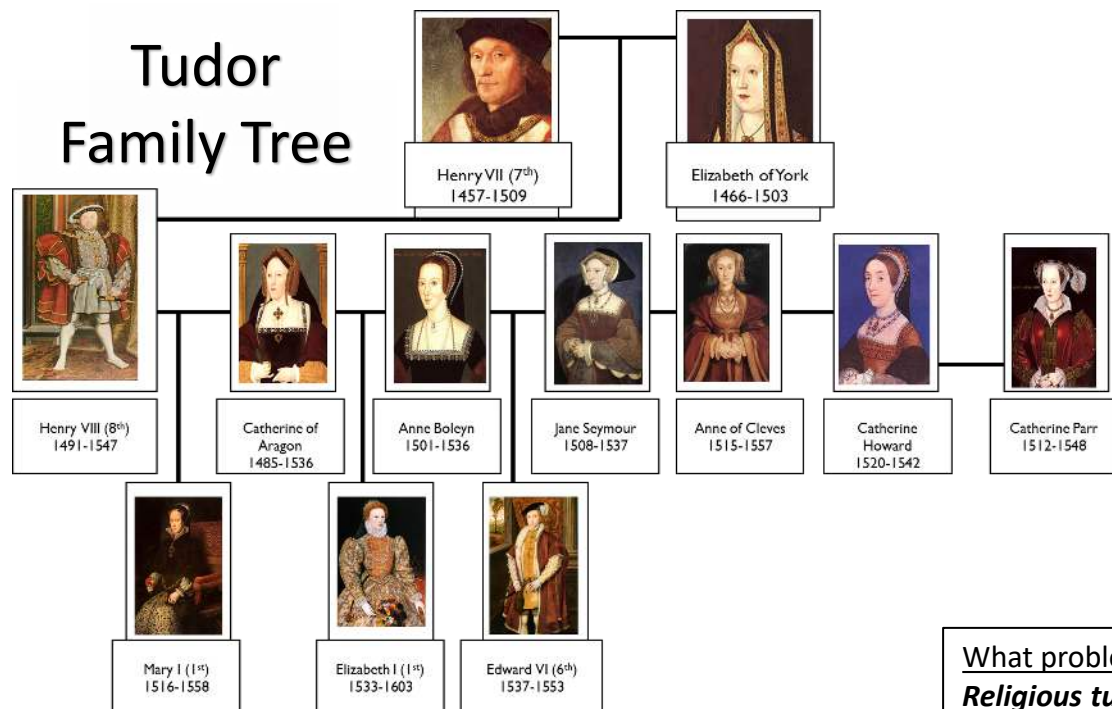
Topic 6: The Tudors

Who was Henry VIII?
He was King of England from 1509 to 1547. He established the **Church of England**, *a Protestant church which split off from the* **Catholic Church** *in Rome. He did this because he wanted an heir and he wanted a new wife. He had six wives:*

- *Catherine of Aragon who was Mary's mother. Henry divorced her.*
- *Anne Boleyn who was Elizabeth's mother. Henry ordered her to be beheaded.*
- *Jane Seymour who was Edward's mother. She died shortly after her son's birth.*
- *Anne of Cleves was divorced by Henry.*
- *Catherine Howard was beheaded.*
- *Catherine Parr who outlived Henry.*

Some historians believe he was a good king. He was well educated and multi-lingual. However he was also brutal and ordered thousands of executions!

Tudor Family Tree

Henry VII (7th) 1457-1509 — Elizabeth of York 1466-1503

Henry VIII (8th) 1491-1547

Catherine of Aragon 1485-1536

Anne Boleyn 1501-1536

Jane Seymour 1508-1537

Anne of Cleves 1515-1557

Catherine Howard 1520-1542

Catherine Parr 1512-1548

Mary I (1st) 1516-1558

Elizabeth I (1st) 1533-1603

Edward VI (6th) 1537-1553

Who was Elizabeth I?
Elizabeth *ruled from 1558-1603. She was Henry's youngest daughter and was unlikely to ever rule. She ruled for a 45 year reign. She is best known for:*

- *leading England to victory against Spain in the Spanish Armada.*
- *making the country a Protestant kingdom once again.*
- *Ordering the execution of her cousin Mary, Queen of Scots, who plotted against her*
- *Overseeing a period of English exploration to the New World (Americas)*
- *Remaining unmarried throughout her life, meaning she had no heir and meaning the Tudor dynasty stopped with her.*

Who were Edward VI and Mary I?
Henry's children ruled after him. He wanted a male heir and this was his main motivation for marrying so many times.

Edward VI *ruled from 1547-1553. He was only a boy, he was sickly, and he died at the age of 15. He ruled England as a Protestant just like his father. He had no child as an heir.*

Mary I *ruled from 1553-1558. She was Henry's eldest daughter. She married the King of Spain, she turned the country back into a Catholic kingdom. She was known as "Bloody Mary" because she ordered the burning of nearly 300 Protestants at the stake. She had no child as an heir.*

What problems existed in Tudor times?
Religious turmoil *between Protestants and Catholics. Even though they were both Christians, they wanted to worship in their own respective ways.*

Poverty *was incredibly widespread. Poor people sometimes resorted to crime and attacked people*

War *was an issue. Early on in the Tudor period there was war with Scotland and France. Later on there was war with Spain.*

Succession *was an issue for Elizabeth as she did not have an heir. There were multiple plots against her.*

History Knowledge Organiser

Topic 7: The Stuarts and the English Civil war

Who ruled after the Tudors?
Elizabeth died with no heir. Her cousin Mary, Queen of Scots, had a son who would take over instead. King James I ruled from 1601 until 1625. He was from the Stuart family. He kept England Protestant. His son Charles I ruled after him from 1625 until 1649. Charles I's son Charles II would rule from 1660 until 1685 – __the country had no king from 1649 until 1660__! Finally Charles I's son James II would rule from 1688.

What problems did the Stuarts face?
Religious tension *was still high as it had been during the Tudor period. The **Gunpowder Plot** of 1605 was an attempt to blow up the Houses of Parliament by Catholic plotters. It was stopped at the last moment.*

Political tension *was high as king and parliament had different opinions on how to run the country. This would cause a **civil war!***

Plague *badly affected England during the Stuart period, especially in 1665. The Great Plague of 1665 caused thousands to die.*

The Great Fire of London *caused much of the capital to burn in 1666. The city needed much rebuilding after this disaster.*

What caused the English Civil War?
Political, economic and religious tensions caused the relationship between King Charles I and his Parliament to break down. He ruled on his own without them for years. When he called them back they tried to get him to agree to new rules. He refused. He tried to arrest rebellious MPs by storming into the House of Commons. In 1642 he declared war on Parliament and both sides began to build their forces up for war.

What happened during the English Civil War?
The war was fought from 1642 until 1646 and then it started again briefly from 1648 to 1649. Both sides won some battles but soon enough Parliament was able to defeat the King in numerous battles. The two sides were:

Parliamentarians
- Their soldiers were known as Roundheads
- Most of them came from the south of the country
- They were supported by the navy
- They had access to more money
- Oliver Cromwell trained them into the New Model Army

Royalists
- Their soldiers were known as Cavaliers
- Most of them came from the north and more rural areas
- They expected support from foreign kings
- They were better trained at the start of the war
- They used cavalry

Why did the king lose his head?
By January 1649 it became clear that King Charles I had no interest in respecting Parliament's demands. He was put on trial and he was to be beheaded. This was a way of setting an example that the English people would not tolerate a king who did not have their best interests. The Parliamentarians ruled the country under Oliver Cromwell and changed the country.

Unit 3: Spring 2 What are the beliefs and religious practices in Judaism?

God, Prophets and the Jewish People

The Torah is the most important Jewish scripture and is made up of 5 books which detail what God wants from his people- the Jewish people. It also states how God communicates through **prophets**.

Moses and the Burning Bush show God to be powerful and mysterious but that he will also save his people.

- God is a saviour of the Jews
- God is mysterious
- God is like a shepherd – a guide and a leader
- God protects
- God punishes evil

Prophet = Messenger of God

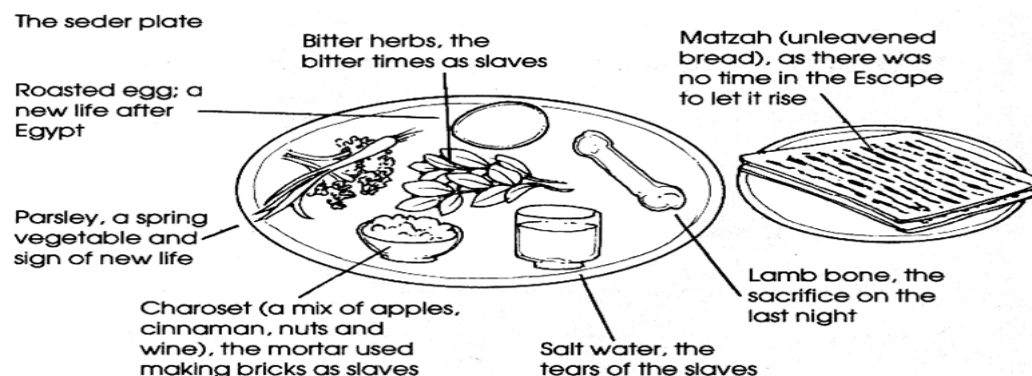## How and why do Jews remember the Passover (Pesach)?

Approximately 4000 years ago the Hebrew (Jewish) people were held as slaves in Egypt. God sent the prophet Moses to deliver 10 plagues to convince the Pharaoh (King) to let God's people go free. The Pharaoh was stubborn and refused until the final most deadly plague. The 10th plague was known as the Passover because *the angel of death passed over the Jewish houses but passed into the Egyptian houses killing the first born sons.*

Jews remember this time because:

a) Remember their ancestors held in slavery
b) To say thank you to God for saving them from Egypt and starting the Jewish faith.

Jewish families read the Haggadah story of what happened and eat a special meal called the Seder. The **Seder meal** has symbolic items present which reminds them of the Passover story.

The Seder Plate for Passover

The seder plate

- Bitter herbs, the bitter times as slaves
- Roasted egg; a new life after Egypt
- Matzah (unleavened bread), as there was no time in the Escape to let it rise
- Parsley, a spring vegetable and sign of new life
- Charoset (a mix of apples, cinnaman, nuts and wine), the mortar used making bricks as slaves
- Salt water, the tears of the slaves
- Lamb bone, the sacrifice on the last night

What is Shabbat?

Jews celebrate Shabbat every Friday evening to Saturday evening to remember God and say thank you for creating the world. In their creation story God makes the world in 6 days and rests on the 7th, which is Saturday.

What do Jews do?

- Light candles and drink wine called a Kiddush blessing to start Shabbat
- Eat a family meal on the Friday evening
- Jews don't do any cooking, cleaning, school work and rest like God in the creation story
- End Shabbat by lighting a 6 wick Havdalah candle and smelling a spice box to symbolise that God has giving **them sweet blessings for the rest of the week.**

What is Kosher Food?

Kosher means 'clean' and concerns itself with food hygiene and what Jews can eat according to laws given by God to Moses. Jews still follow these rules today show commitment to God.

Forbidden/Trefer food = pigs, shell fish, mixing meat and dairy products, unwashed veg.

Meat eaten is only considered kosher if it is killed by the throat of the animal being slit and the blood drained from its body. This practice comes from laws found in the Torah.

Unit 3: Summer 1 Worship, key feasts and rites of passage in Judaism.

Inside a Synagogue

1. In a traditional orthodox synagogue men and women are separated. Women sit in the gallery with children whilst the men lead the worship below.
2. There are no statues or images of God as that is considered disrespectful.
3. The 10 commandments- written above the Ark and focus point of worship
4. The Ner Tamid. It is an everlasting burning light to symbolise the eternity of God
5. The Ark. This is a cupboard which hold the sacred scripture the Torah scrolls.
6. The Bimah – this is a reading desk from where the Torah scroll is read from.

What is Rosh Hashanah and Yom Kippur?

1. Rosh Hashanah is Jewish New Year
2. Known as the Days of Returning and last 10 days
3. During this time you think about what you've done wrong in the year
4. The night before the start there is a special meal of apples dipped in honey to symbolise a sweet year ahead.
5. At the synagogue a horn called a shofar is blown to remind Jews of Gods power and of the giving of the Torah laws to be obedient to God.
6. Yom Kippur means Day of Atonement. It is New Year and the holiest day of the year.
7. On this day the person asks God for forgiveness
8. Jews spend most of the day at the synagogue, which has the main furniture covered in white cloth to symbolise purity.
9. The shofar is blown again to mark the start of the new year and a new relationship with God.

What is the significance of BAR/BAT MITZVAH?

Bar = Son   Bat = Daughter
Mitzvah = Commandment

This important rite of passage marks becoming a responsible person in the eyes of God and takes place aged 13. This age is thought to be the time when a person fully understands their religion and commandments given to them by God. A young Jewish person will have to recite passages from the Torah at the synagogue, sometimes followed by a party. For Orthodox Jews it means that the boy can take part and lead in worship too.

Jewish Weddings:

1. The man and woman stand under a canopy called a chuppah. It symbolises their first home together.
2. The Rabbi read passages from the Torah about marriage
3. A Chazzan sings 7 blessings
4. Rings are exchanged to symbolise eternal love
5. A goblet of wine is shared and then stamped on shouting Mazel Tov! (Good luck). It symbolises that they will go through both good and bad times but they must stay together.

Unit 4: Summer 2 Divine Women: How have women been significant in religious history?

Judaism: Esther and Purim

- Esther is the heroine in the story known as the **Megillah.**
- In this story Esther *saves the Jewish population* from being killed at the hands of the jealous leader Haman.
- **Purim** is the name of the festival which remembers the actions of Esther. It is a joyous celebration in which the story is acted out like a pantomime.
- **Graggers** are waved to signal dislike for the evil Haman.

Hinduism: The goddesses of the Trevedi

The 3 goddesses of the **Trevedi** are also the wives or counterparts to the gods of the Trimurti.
1. Lakshmi is the goddess of wealth and success and is shown with lotus flowers
2. Parvarti (Durga) is the Mother goddess and Warrior Queen of destruction and is shown riding a ferocious tiger
3. Saraswati is the goddess of learning and wisdom an shown playing the musical instrument the lute.

Christianity:
The Virgin Mary.

She is Jesus' mother and was chosen by God to give birth to God in human form. Mary becoming pregnant is known as the Immaculate conception means she was pure of heart when she conceived Jesus and this was why she was chosen. Christians believe she remained pure all of her life because she is the mother of God. Theologians argued that the Mother of God could not be separated from God, and so must have been taken up to be with him in heaven. This is known as the ***assumption.***

Mary Magdelene

Mary Magdalene is significant because she was one of Jesus' **closest friends**. She is not counted as a disciple but was always with them and Jesus as one of his followers. She is also significant because she was there at **Jesus' crucifixion** and she was the first person to see the Jesus' burial tomb and **resurrection.**

Ancient Greek Goddess: Athena
The ancient Greeks and Romans believed in pantheons. A pantheon is a group of deities as they worshipped many gods and goddesses.
Athena is the Greek goddess of **wisdom and war.** She is the daughter of the most powerful god, Zeus and the goddess of the Greek capital Athens. She is sometimes shown with *a shield or spear in battle and with an owl, a symbol of her wisdom.*
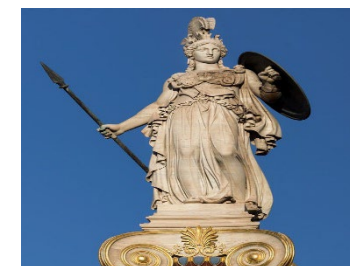
DECIMALS

Key Concept
Multiply/Divide by powers of 10

10 000	1000	100	10	1	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$

Multiplying

- X 10 — digits move LEFT **1** space
- X 100 — digits move LEFT **2** spaces
- X 1000 — digits move LEFT **3** spaces

←

Dividing

- ÷ 10 — digits move RIGHT **1** space
- ÷ 100 — digits move RIGHT **2** spaces
- ÷ 1000 — digits move RIGHT **3** spaces

→

Rounding rules:

A value of 5 to 9 rounds the number up.

A value of 0 to 4 keeps the number the same.

Key Words

Decimal: A number that contains a point

Ascending Order: Place in order, smallest to largest.

Descending Order: Place in order, largest to smallest.

Round 3.527 to:

a) 1 decimal place

3 . 5 2 7 → 3.5

b) 2 decimal places

3 . 5 2 7   3.53
→

Examples

Ordering Decimals

0.3, 0.21, 0.305, 0.38, 0.209

Add zeros so that they all have the same number of decimal places.

0.300, 0.210, 0.305, 0.380, 0.209

Then they can be placed in order:

0.209, 0.21, 0.3, 0.305, 0.38

Multiplying/Dividing by powers of 10

3.4×100

100	10	1	$\frac{1}{10}$
		3	4
3	4	0	

Year 7

Tip

- Add digits when ordering decimals.
- The number of zeros tells you the number of places to move the digits.

Questions

1) Order   1.52,   1.508,   1.5,   1.05,   1.51
2) Work out   a) 1.35×10 b) 0.6×100 c) $4.5 \div 100$
3) Round 5.657 to 2dp
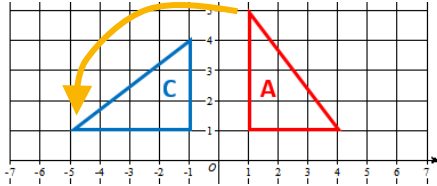
TRANSFORMATIONS

Key Concept

Reflection
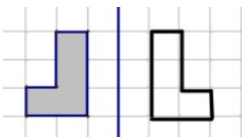
Rotation

Translation
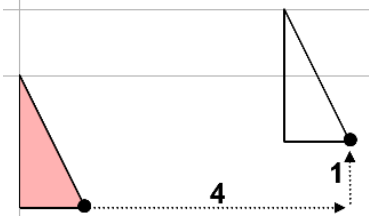
Key Words

Co-ordinate: A pair of numbers which describe the position on a grid.

Transformation: This means the shape has 'changed'.

Reflection: This means a shape has been flipped.

Rotation: This means a shape has been turned.

Translation: This means a *movement* of the shape.

Examples

a) Reflect A in the x-axis, label it B.

b) Rotate A 90°, anti-clockwise about (0,0), label it C.

c) Translate A in the vector $\begin{pmatrix} -7 \\ -6 \end{pmatrix}$, label it D.

Tip

- Use **tracing paper** to avoid mistakes.
- When describing transformations, look at how many marks are available and see if you have put enough to get the marks.

Year 8

Questions

Draw a grid like the one above.
Plot a triangle with vertices (6,2), (3, 2) and (4, 5).

a) Reflect the triangle in the y-axis. b) Translate the triangle $\begin{pmatrix} -3 \\ -4 \end{pmatrix}$

ANSWERS: a) (-6,2), (-3,2), (-4,5)   b) (1,1), (0,-2) and (3,-2)

FRACTIONS & PERCENTAGES OF AMOUNTS

Key Concept

Fraction → Decimal → Percentage

Numerator ÷ denominator
Write over 100
×100
÷100
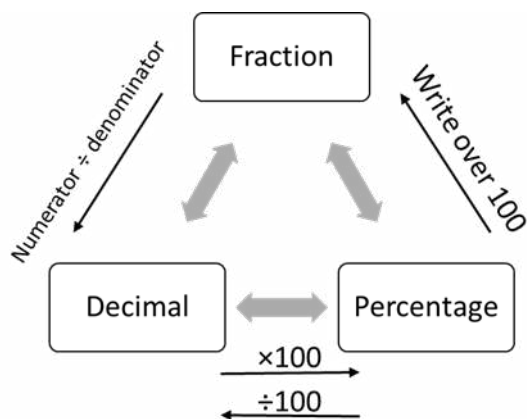
Key Words

Percentage: Is a proportion that shows a number as parts per hundred.

Fraction: A fraction is made up of a numerator (top) and a denominator (bottom).
.

Examples

Non-Calculator

$$\frac{3}{4} \ of \ 32 =$$
$$32 \div 4 \times 3$$
$$= 24$$

$16\% \ of \ 240$

$$10\% = 24$$
$$5\% = 12$$
$$1\% = 2.4$$

$= 24 + 12 + 2.4$
$= 38.4$

Calculator

Find **32%** of 54.60 =
0.32 × 54.60 = 17.472

Tip

There is a % function on your calculator.

To find 25% of 14 on a calculator:

2, 5, SHIFT, (, ×, 1, 4, =

Questions

1) Find these fractions of amounts:

a) $\frac{1}{3} \ of \ 15$ a) $\frac{1}{5} \ of \ 65$ a) $\frac{2}{7} \ of \ 14$ a) $\frac{4}{9} \ of \ 45$

2) a) 35% of 140   b) 21% of 360

Year 7

INTRODUCTION TO PROBABILITY

Key Concept

Chance

Impossible — Unlikely — Even Chance — Likely — Certain

Probability

0	0.25	0.5	0.75	1
0%	25%	50%	75%	100%
0	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1
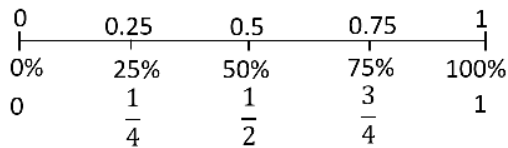
Probabilities can be written as:
- Fractions
- Decimals
- Percentages

Key Words

Probability: The chance of something happening as a numerical value.

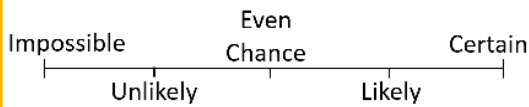**Impossible:** The outcome cannot happen.

Certain: The outcome will definitely happen.

Even chance: The are two different outcomes each with the same chance of happening.

Expectation: The amount of times you expect an outcome to happen based on probability.

Examples
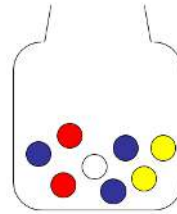
1) What is the probability that a bead chosen will be **yellow**.
Show the answer on a number line.

$$Probability = \frac{Number\ of\ favourable\ outcomes}{Total\ number\ of\ outcomes}$$

$$P(Yellow) = \frac{2}{8} = \frac{1}{4}$$

0    $\frac{1}{8}$ $\frac{2}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{5}{8}$ $\frac{6}{8}$ $\frac{7}{8}$ 1
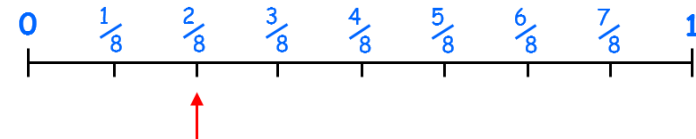
2) How many **yellow** beads would you **expect** if you pulled a bead out and replaced it 40 times?

$$\frac{1}{4} \times 40 = \frac{1}{4} of\ 40 = 10$$

Year 7

Tip
Probabilities always add up to 1.

Formula
Expectation
$= Probability \times no. of\ trials$

Questions
In a bag of skittles there are 12 red, 9 yellow, 6 blue and 3 purple left.
Find: a) P(Red) b) P(Yellow) c) P(Red or purple) d) P(Green)

ANSWERS: 1) a) $\frac{12}{30} = \frac{2}{5}$ b) $\frac{9}{30} = \frac{3}{10}$ c) $\frac{15}{30} = \frac{1}{2}$ d) 0

INTRODUCTION TO EQUATIONS

Key Concept

Inverse Operations

Operation	Inverse
+	**—**
—	**+**
✕	**÷**
÷	**✕**
x²	**√x**

Key Words

Unknown: A letter which represents a number we do not know the value of.

Terms: The numbers and letters in the expression or equation.

Inverse: The operation which will do the opposite.

Tip

Answers can be:
- Integers
- Decimals
- Fractions
- negatives

Year 7

Examples

$x + 9 = 16$ -9 -9 **x = 7**	$x - 12 = 20$ +12 +12 **x = 32**	$\frac{x}{3} = 5$ ×3 ×3 **x = 15**	$2x + 5 = 14$ -5 -5 $2x = 9$ ÷2 ÷2 **x = 4.5**

$\frac{x}{4} - 2 = 4$ +2 +2 $\frac{x}{4} = 6$ ×4 ×4 **x = 24**	$2(3x + 5) = -14$ expand $6x + 10 = -14$ -10 -10 $6x = -24$ ÷6 ÷6 **x = -4**	$2x + 7 = 5x + 1$ -2x (smallest x term) $+7 = 3x + 1$ -1 -1 $6 = 3x$ ÷3 ÷3 **2 = x**

Questions

1) $x + 8 = 19$

2) $y - 25 = 15$

3) $2y = 82$

4) $\frac{t}{4} = 7$

5) $\frac{p}{2} - 6 = 2$

6) $3(2x - 3) = 15$

7) $4x - 8 = 2x + 1$

ANSWERS: 1) x = 11, 2) y = 40, 3) y = 41, 4) t = 28, 5) p = 16, 6) x = 4, 7) x = 4.5

A

AVOIR [to have]		ÊTRE [to be]	
j' [I]	ai	je	suis
tu [you]	as	tu	es
il/elle [he/she]	a	il/elle	est
nous [we]	avons	nous	sommes
vous you (pl)	avez	vous	êtes
Ils/elles [they]	ont	ils/elles	sont

B

REGULAR PRESENT TENSE

	-ER	-IR	-RE
Je	e	is	s
Tu	es	is	s
Il/Elle/On	e	it	
Nous	ons	issons	ons
Vous	ez	issez	ez
Ils/Elles	ent	issent	ent

USEFUL infinitives (verbs)

aimer = to like
adorer = to love
Détester = to hate
penser = to think
Trouver = to find

étudier = to study
Commencer- to start
Bavarder = to chat
Rigoler = to laugh
Jouer= to play
Manger = to eat

C

D — Opinions & Pronoun phrases

J'aime [bien]
J'aime beaucoup
J'adore
Je préfère

Je n'aime pas
Je déteste
J'ai horreur de
Je n'aime pas du tout

ma matière préférée est…

Ça m'intéresse
Ça m'amuse
Ça me fascine

Ça me stresse
Ça m'énerve
Ça m'ennuie
Ça m'embête

Je pense que (c'est…)
Je trouve que..
A mon avis…

E — Connectives

Aussi /en plus	also / furthermore
Mais / cependant	but / however
que / qui	which
où	where
Parce que /car	because

F — Complexity

Je dois + infintive-   I must
Il faut + infinitive – 'one must'..
Je peux + infinitive - I can
Je veux + infinitive -I want
Je voudrais + infinitive – I would love

G — Adjectives

actif [ive]	active
amusant [e]	fun
créatif [ive]	creative
intéressant[e]	interesting
relaxant [e]	relaxing
passionnant [e]	exciting
utile	useful
barbant [e]	Boring/tedious
ennuyeux [euse]	boring
nul [le]	rubbish
facile	easy
difficile	difficult
Le prof est sympa	The teacher is nice
Le prof est sévère	The teacher is strict
génial(e)	great
marrant(e)	Fun / funny

Quantifiers

très (very);   vraiment (truly)
assez (quite); un peu (a bit)
trop (too); tellement (so)

H

Les matières scolaires • *School subjects*

le français	*French*
le théâtre	*drama*
la géographie/la géo	*geography*
la musique	*music*
la technologie	*technology*
l'anglais (m)	*English*
l'EPS (f)	*PE*
l'histoire (f)	*history*
l'informatique (f)	*ICT*
les arts plastiques (m)	*art*
les mathématiques/maths (f)	*maths*
les sciences (f)	*science*

J

Quelle heure est-il? • *What time is it?*

Il est …	It's …
huit heures	*eight o'clock*
huit heures dix	*ten past eight*
huit heures et quart	*quarter past eight*
huit heures et demie	*half past eight*
neuf heures moins vingt	*twenty to nine*
neuf heures moins le quart	*quarter to nine*
midi	*midday*
minuit	*midnight*
midi/minuit et demi	*half past twelve (midday/midnight)*

I

un = 1	seize = 16
deux = 2	dix-sept = 17
trois = 3	dix-huit = 18
quatre = 4	dix-neuf = 19
cinq = 5	vingt = 20
six = 6	vingt et un = 21
sept = 7	vingt-deux = 22
huit = 8	vingt-trois = 23
neuf = 9	vingt-quatre = 24
dix = 10	vingt-cinq = 25
onze = 11	vingt-six = 26
douze = 12	vingt-sept = 27
treize = 13	vingt-huit = 28
quatorze = 14	vingt-neuf = 29
quinze = 15	trente = 30
	trente et un = 31

I

lundi	samedi
mardi	dimanche
mercredi	
jeudi	
vendredi	

K

L'emploi du temps • *The timetable*

À [neuf heures] j'ai [sciences].	At [nine o'clock] I've got [science].
le matin	*(in) the morning*
l'après-midi	*(in) the afternoon*
le mercredi après-midi	*on Wednesday afternoon*
la récréation/la récré	*breaktime*
le déjeuner	*lunch*

J

100%	toujours
85%	d'habitude
75%	normalement
60%	souvent
50%	parfois
40%	de temps en temps
30%	rarement
20%	pas souvent
10%	presque jamais
0%	jamais

A

AVOIR [to have]		ÊTRE [to be]	
j' [I]	ai	je	suis
tu [you]	as	tu	es
il/elle [he/she]	a	il/elle	est
nous [we]	avons	nous	sommes
vous you (pl)	avez	vous	êtes
Ils/elles [they]	ont	ils/elles	sont

B

REGULAR PRESENT TENSE

	-ER	-IR	-RE
Je	e	is	s
Tu	es	is	s
Il/Elle/On	e	it	
Nous	ons	issons	ons
Vous	ez	issez	ez
Ils/Elles	ent	issent	ent

USEFUL infinitives (verbs)

aimer = to like
adorer = to love
Détester = to ahte
penser = to think
Trouver = to find

Manger = eat
Boire = to drink
Croire = to believe
Voir = to see

C

D Opinions & Pronoun phrases
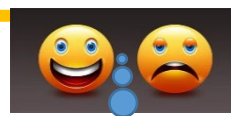
See Summer 1 previous pronoun phrases

Il aime
Nous adorons
Ils détestent

Ce que j'aime le plus, c'est
Ce que m'énerve c'est
Ce que je trouve dégoutant c'est..

Je crois que=
I believe that

E Connectives

Aussi /en plus	also / furthermore
Mais / cependant	but / however
que / qui	which
où	where
Parce que /car	because

Premièrement	*firstly*
Deuxièmement	*secondly*
Finalement	*finall*

F Complexity

Indicative present	boire	croire	voir
Je	bois	crois	vois
Tu	bois	crois	vois
Il / Elle / On	boit	croit	voit
Nous	buvons	croyons	voyons
Vous	buvez	croyez	voyez
Ils / Elles	boivent	croient	voient

G Adjectives

Sucré(e)]	Sweet
Délicieux (euse)	Delicious
Dégoutant(e)	Disgusting
affreux [euse]	Awful
savoureux [euse]	Savoury
sain [e]	healthy
Bon(ne) pour la santé	Good for your health
Mauvais(e) pour la santé	Bad for your health

Quantifiers

très (very); vraiment (truly)
assez (quite); un peu (a bit)
trop (too); tellement (so)

H

Qu'est-ce que tu manges? • **What do you eat?/ What are you eating?**

Je mange …	I eat/I'm eating …
du fromage	cheese
du poisson	fish
du poulet	chicken
du steak haché	beefburger
du yaourt	yoghurt
de la pizza	pizza
de la purée de pommes de terre	mashed potatoes
de la glace à la fraise	strawberry ice-cream
de la mousse au chocolat	chocolate mousse
de la tarte au citron	lemon tart
des crudités	chopped, raw vegetables
des frites	chips
des haricots verts	green beans

I

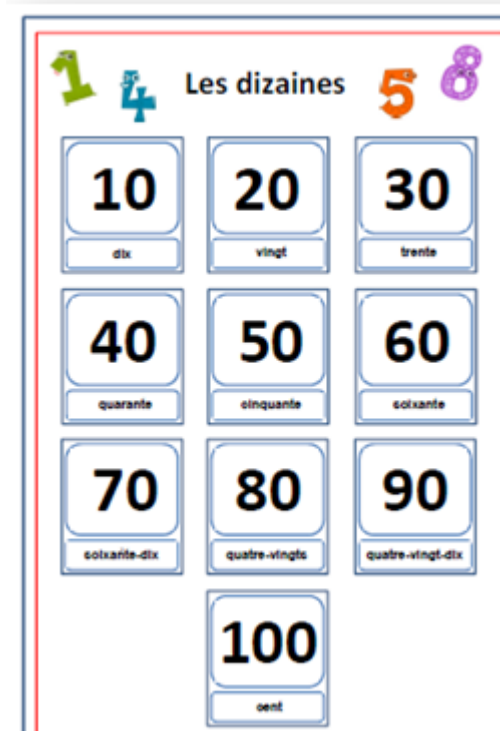**The partitive article**

The partitive article means 'some'. It has a different form with masculine, feminine and plural nouns. de l' is used before a vowel sound or silent h.

le	poulet	(chicken)	→	du	poulet	(some chicken)
la	glace	(ice-cream)	→	de la	glace	(some ice-cream)
l'	eau	(water)	→	de l'	eau	(some water)
les	frites	(chips)	→	des	frites	(some chips)

J

La carte, s'il vous plaît

Voilà, monsieur / madame. Que voulez-vous comme boisson?

Je voudrais…

Et comme entrée?

Je prends…

Et que voulez-vous comme plat principal?

Je voudrais…

Voulez-vous un dessert?

Oui, je voudrais…

Après le repas

L'addition, s'il vous plaît.

Menu prix fixe

ENTRÉES

PLATS

DESSERTS

I

J'ai faim.   J'ai soif.

K

C'est combien?

- Combien coûte la salade?
- Elle coûte 7 euros.
- Combien coûte le café?
- Il coûte 2 euros.
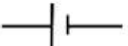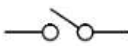- C'est combien?
- Ca fait 9 euros.

L'euro

M

Les dizaines

10 dix	20 vingt	30 trente
40 quarante	50 cinquante	60 soixante
70 soixante-dix	80 quatre-vingts	90 quatre-vingt-dix
	100 cent	

7J Current Electricity

1. Switches and Current

Component	Something in a circuit.
Switch	Closing a switch completes the circuit allowing the current to flow.
Bulbs	Electricity flowing through makes the filament glow.
Current	The amount of electricity flowing around a circuit. Measured in amperes (A).
Current in a Series Circuit	Current is not used up as it goes around the circuit, it is the same everywhere.
Ammeter	Used to measure current.
	Cell circuit symbol
	Bulb circuit symbol
	Switch circuit symbol
	Ammeter circuit symbol

2. Models for Circuits

Models	A way of showing or representing something.
Advantages of Using Models	Allow us to help think about complicated ideas in science.
Charges	An electric current is a flow of charges carrying energy from the cells to the components.
Conductors	Charges can move through them easily (e.g. metals).
Insulators	Charges cannot move through them easily.

Model Example

The pipes let the hot water flow through them.

The boiler transfers energy to the water and the pump pushes the water through the pipes.

X Y

In the radiator, energy is transferred from the hot water to the room.

All the water stays in the pipes. If you measure the amount of water flowing, you will get the same reading at X and Y, but the water at Y would be storing less energy than the water at X.
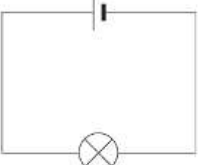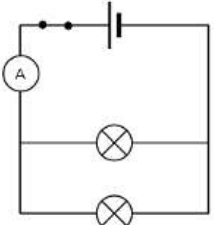
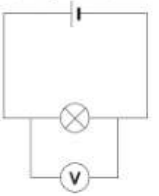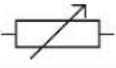| Model Example Explanation	• Boiler represents the cell • Pipes represent the wires • The radiator represents a component • Water represents the current

3. Series and Parallel Circuits

Series Circuit	A circuit with all the components in one loop.
Series Circuit Diagram	
Parallel Circuit	A circuit with branches that split apart and join again.
Parallel Circuit Diagram	
Parallel Circuit Advantages	Each bulb/component can be turned on individually. If one bulb/component breaks the components in other branches stay on (unlike a series circuit).
Current in a Parallel Circuit	The current splits when it reaches a branch. The current in all the branches add up to the current in the main part of the circuit.

Adding Bulbs	If you add bulbs into a series circuit the current gets smaller and the bulbs dimmer. In a parallel circuit if you add bulbs on different branches they stay bright.

4. Changing the Current

Voltage	A way of saying how much energy is transferred by electricity. The voltage of the cell helps push the charges around the circuit. Measured in volts (V).
Voltmeter	Used to measure voltage.
Connecting a Voltmeter	Voltmeters are connected across a component.
Voltage in a Series Circuit	The voltage across all the components adds up the voltage across the cell.
Resistance	How difficult it is for electricity to flow through something.
Resistor	A component that makes it difficult for electricity to flow- reduces size of current.
	Voltmeter circuit symbol
	Resistor circuit symbol
	Variable resistor circuit symbol

5. Using Electricity

Hazard	Something that could cause harm.
Risk	The chance that a hazard will cause harm.

Electricity Risks	Can cause fires, burns to the body and stop the heart from working.
Reducing Risks	Don't touch bare metal parts of plugs, don't poke things into sockets, keep water away from electricity, don't plug too many things into a socket and never use a damaged wire.
Fuse	A wire that melts if the current is too high, breaking the circuit.
Circuit Breaker	Cuts off the current if it is too high.
Plug Wires	Live and neutral wires make an appliance work; earth wire is for safety.
Plug Diagram	earth wire, earth pin, fuse, neutral wire, live pin, neutral pin, live wire. The cable grip stops the wires being pulled from the pins. cable
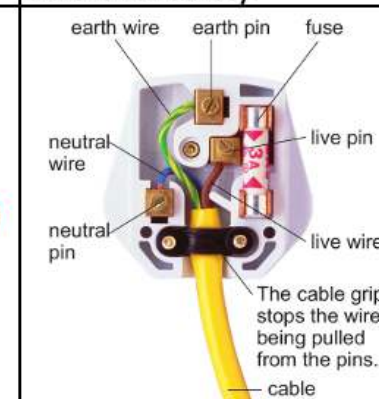
Work through memorising the information – highlight each definition once you know it. When you have completed your highlighting completed the gap fill and activities on the second sheet to support your retrieval practice.
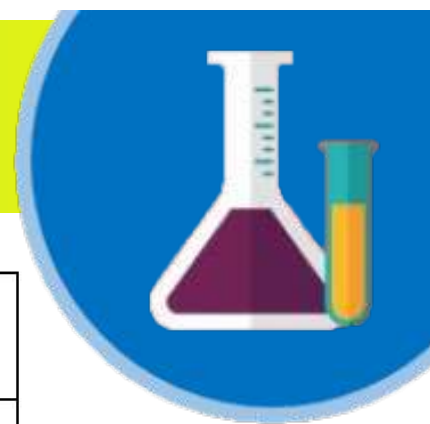
7L Sound

1. Making Sounds

Making Sounds	Sounds are made by something vibrating.
Intensity	How loud or soft a sound is- its volume.
Pitch	How high or low a sound is.
Frequency	The number of vibrations each second. The higher the frequency the higher the pitch.
Hertz (Hz)	The units for measuring frequency.
Amplitude	The size of vibrations. The bigger the amplitude the louder the note.
Humans Making Sounds	Two flaps (vocal folds) across the windpipe vibrate when air moves across them.
Grasshoppers Making Sounds	Male grasshoppers chirp by rubbing one leg against a wing.
Gorillas Making Sounds	Male gorillas thump their chests or thump the ground to threaten other males.

2. Moving Sounds

|	
Moving Sounds	Sounds can only travel through a medium (a solid, liquid or gas).
Vacuum	A completely empty space. Sound cannot travel through.
Particles	Tiny pieces of matter that make up everything.
Sound Moving Through the Air	Air particles vibrate and cause nearby particles to vibrate so the vibrations spread through the air.
Sound Wave	Formed by the moving vibrations.

|	
Pressure Wave	The air particles are pushed together in some place (high pressure) and spread out in other places
Sound Wave Frequency	The number of waves passing a point per second.
Sound Wave Amplitude	The distance moved by air particles as the sound wave passes.
Energy	Energy is transferred from one place to another by sound waves. They do not transfer particles.
Speed of Sound	Sound travels faster in solids because the particles are close together.
Moving Away from A Source	As you move away from a source of sound, the energy carried has spread out further so there is less energy for your ear to detect- it sounds quieter.

3. Detecting Sounds

The Ear

Ear Drum, Tiny Bones, Auditory Nerve, Ear Canal, Cochlea
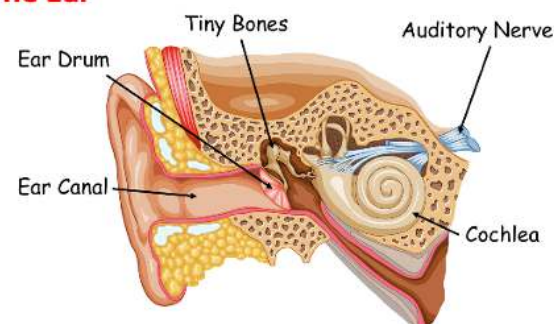
Ear Protection	Loud sounds damage our ears- people who work in noisy surroundings need ear protection. Certain soft materials (carpets, curtains, etc.) also absorb energy transferred by sound waves.

How Ears Detect Sounds	1. sound waves enter the ear canal. 2. the eardrum (a thin membrane) vibrates. 3. vibrations pass to the tiny bones which amplify the vibrations. 4. vibrations pass to the liquid inside the cochlea. 5. tiny hairs inside the cochlea detect vibrations and create electrical signals (impulses). 6. impulses travel along the auditory nerve to the brain.
How Microphones Detect Sounds	Sounds make a thin sheet of materials (a diaphragm) vibrate and electrical circuits convert these vibrations into electrical currents.
Decibels (dB)	The units for measuring the loudness of a sound.
Auditory Range	The range of frequencies an organism can hear 20Hz – 20000Hz in humans
Infrasound	Sounds below 20Hz
Ultrasound	Sounds above 20000Hz

4. Using Sound

Using Sound	Sound is often used for communication.
Transmitted	Energy from sound waves goes through some materials.
Reflected	Energy from sound waves bounces off some materials.
Using High Frequency Waves	• Treat injuries • Clean delicate objects by making tiny bubbles that loosen dirt when the burst.
Echo	A reflected sound

Echolocation	Used by animals (bats, dolphins, etc.) to find their way around/find prey.
Sonar	Pulse of ultrasound is given off and reflected by the sea bed. It is then detected by sonar equipment to find the depth.

5. Comparing Waves

Longitudinal Waves	Particles vibrate in same direction wave is moving.
Transverse Waves	Particles vibrate at right angles to direction wave is moving.

Transverse Wave Diagram
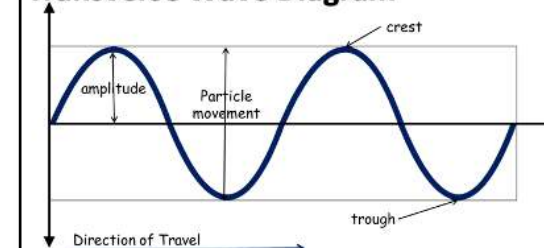
Superposition	As waves pass through each other their effects add up or cancel out.
Superposition Diagram	

Work through memorising the information – highlight each definition once you know it. When you have completed your highlighting completed the gap fill and activities on the second sheet to support your retrieval practice.

8A Food and Nutrition

1. Nutrients

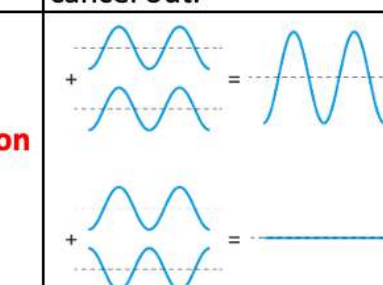|	
Diet	The food that you eat- provides the raw materials your body needs for energy.
Nutrients	Food substances that provide the raw materials- carbohydrates, fats, proteins, vitamins, minerals
Carbohydrates	Starch and sugars
Fats	Liquid fats are oils. Fats and oils are called lipids.
Fibre	Made of plant cell walls- not used by the body. Helps food move through the intestines and stops them getting blocked.
Uses of Water	• a lubricant • dissolves substances to be carried around body • fills up cells, holding shape • sweat to cool you down
Food Labels	Show the amounts of different nutrients in food.
Starch Food Test	Add 2 drops of iodine. If it turns **blue-black** starch is present.
Protein Food Test	Add 5 drops of biuret solution. If it turns **purple** protein is present.
Fat Food Test	Rub on some white paper and hold up to the light. fats will leave a greasy mark

2. Uses of Nutrients

Uses of Carbohydrates	The body's main source of energy. *Bread, potatoes, pasta*

(continued)

Uses of Fats	Another source of energy that is stored in your body. Some is stored under the skin to insulate the body. *Dairy products, fried food*
Maintaining Mass	The amount of fuel you use needs to balanced by the amount you eat.
Kilojoules (kJ)	The units for measuring the energy in food.
Respiration	The process that releases energy from food.
Energy Needs	Depends on age, sex and how active you are.
Uses of Proteins	Make new cells allowing us to grow and repair our bodies. *Meat, fish, cheese, beans, milk*
Uses of Vitamins and Minerals	Used in small amounts to maintain health.
Vitamin A	Needed for healthy skin and eyes.
Vitamin C	Helps cells in tissues stick together properly.
Calcium	Needed to make bones.
Iron	Makes red blood cells.

3. Balanced Diets

Balanced Diets	Eating a range of foods in the right amounts.
Malnutrition	Having too much / too little of a nutrient in your diet.
Deficiency Disease	Caused by lacking certain nutrients for a long time.
Kwashiorkor	Lack of protein causing a 'pot belly'.
Night Blindness	Lack of vitamin A.
Scurvy	Lack of vitamin C causing painful joints and bleeding gums.

Rickets	Lack of calcium / vitamin D causing bones not to form properly.
Anaemia	Lack of iron causing tiredness and shortness of breath.
Starvation	Lacking nearly all nutrients needed.
Obesity	Caused by eating food containing more energy than you need.
Heart Attack	Fat clogs arteries so little blood reaches the heart.
Reference Intakes	How much of each nutrient should be eaten in a day.

4. Digestion

Digestion	Turning large insoluble molecules into small soluble ones.

Digestive System
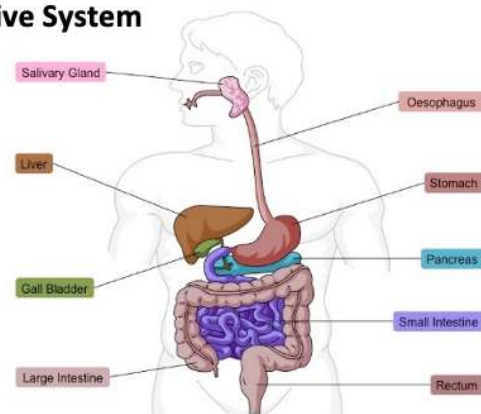
Mouth	Teeth grind food and saliva helps digest food.
Gullet	(oesophagus / food pipe) Muscles contract pushing the food down.
Stomach	Food churned with acid.
Small Intestine	More digestive juices added- small digested molecules absorbed into body.
Large Intestine	Water is removed from undigested food- faeces formed.
Rectum	Stores faeces

Anus	Faeces pushed out body- egestion.
Gut Bacteria	Microorganisms needed to help digest food.
Enzymes	Substances that speed up the breaking down of large molecules- biological catalysts.

5. Absorption

Digesting Starch	
Blood	Digested nutrients dissolve in the blood plasma and are carried around the body to cells.
Diffusion	Movement of particles from an area of high concentration to low concentration.
Small Intestine Adaptations.	Has lots of tiny finger-shaped villi to increase surface area. Each villus has a folded top that forms microvilli. Villi walls are one cell thick for easier diffusion.
Alcohol	Causes fewer digestive enzymes to be released and can damage villi.

Work through memorising the information – highlight each definition once you know it. When you have completed your highlighting completed the gap fill and activities on the second sheet to support your retrieval practice.

8B Plants and their Reproduction

1. Classification and Biodiversity

|	
Classification	Sorting organisms into groups based on their characteristics.
Kingdoms	The five largest groups (each can be split into smaller groups)- *animals, fungi, protoctists, prokaryotes and plants*.
Plants	Members of the plant kingdom have cellulose cell walls, are multicellular and make their own food.
Scientific Name	We give organisms scientific names using the names of the last two groups- the genus and the species.
Scientific Name Advantages	Scientific names are agreed around the world so there is no confusion. Some species have the same common name in different places.
Biodiversity	The number of difference species in an area.
Advantages of High Biodiversity	Recover faster from disasters and useful substances can be found (medicines).
Extinct	When an organism dies out completely.

2. Types of Reproduction

Sexual Reproduction	Two organisms breeding to produce offspring.
Hybrids	The offspring of two different species- they are not fertile.
Fertile	Can produce offspring.
Inherited Variation	Characteristics inherited from parents (due to DNA).

Gametes	Sex cells
Zygote	The fertilised egg cell formed when the male and female gamete join.
Asexual Reproduction	Reproduction involving only one parent- produces offspring identical to the parent (clones).
Runners	An example of asexual reproduction used by strawberry plants. They spread over the ground and sprout roots to grow new identical plants.
Tubers	An example of asexual reproduction used by potato plants. They are underground stems (potatoes) that contain a store of food that can grow into a new plant.
Using Asexual Reproduction	Gardeners take cuttings of leaves/stems to grow new plants quickly and cheaply.

3. Pollination

Plant Reproductive System
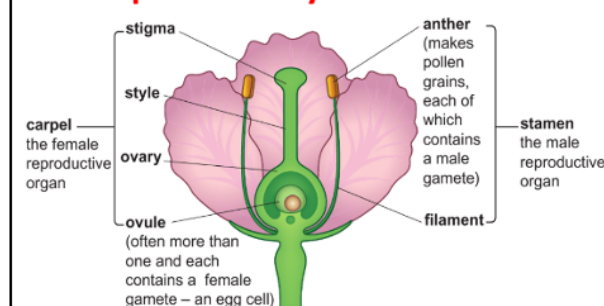
Pollen	Male gamete that ripens inside the anthers.
Pollination	The pollen grain carried away and transferred to the stigmas of another plant can be by animals/wind/water/

Plant Adaptations for Animal Pollination	Brightly coloured petals, nice scent and nectar attract animals (mainly insects). The structure also makes it easier for animals to pick up / leave pollen grains.
Plant Adaptations for Wind Pollination	Pollen is smooth and light to float through air. large anthers and stigmas hang outside the flower to catch the wind.
Self-Pollination	Pollen grains from a plant land on the stigma of the same plant.
Cross-Pollination	Pollen transferred from one plant to another.

4. Fertilisation and Dispersal

Pollen Tube	Formed when a pollen grain reaches a stigma of the same species. It grows down to the ovule.
Fertilisation	The egg cell and the male gamete from the pollen grain join together to form a zygote.
Cell Division	The process by which the cell splits into two.
Embryo	Formed when the cells divide again and again.
Seed	The ovule becomes a seed. Inside the seed is the embryo and a food source.
Seed Coat	Hart outer coating of seed to protect it.
Germinate	The seed starts to grow.
Fruit	The ovary swells up and forms the fruit around the seed.
Seed Dispersal	The spreading of seeds away from the parent plant.

Attracting Animals	Fruits are fleshy, soft, juicy and taste good to attract animals for seed dispersal.
Egested	Seeds are passed out by animals in their faeces.
Other Seed Dispersal Methods	Wind, water and explosions- useful so that new plants aren't in competition with the parent plant.

5. Germination and Growth

Resources	What a plant needs to grow/germinate.
Respiration	The process of releasing energy from glucose.

Respiration Word Equation

glucose + oxygen → carbon dioxide + water

Dormant	Slow life processes but still alive- such as in a seed.
Photosynthesis	A process that plants use to make their own food.

Photosynthesis Word Equation

carbon dioxide + water → glucose + oxygen

Starch	Glucose is converted to starch to store it.
Chloroplasts	Traps light energy needed for photosynthesis.
Interdependent	Organisms that depend on one another.

Work through memorising the information – highlight each definition once you know it. When you have completed your highlighting completed the gap fill and activities on the second sheet to support your retrieval practice.

Computer Science Knowledge Organiser

IMPACT OF TECHNOLOGY – COLLABORATING RESPONSIBLY

Cyberbullying is similar to bullying but tends to occur online. Cyberbullying can come in many forms. Some examples are:
· Threatening someone to make them feel scared
· Harassing someone by repeatedly sending them messages
· Ruining somebody's reputation
· Excluding someone from a group
· Stealing someone's identity and pretending to be them
· Publicly displaying private images or messages

Key Words

Audience	The people you are communicating, presenting information to
Catfishing	A person pretends to be someone they are not.
Collaboration	Working effectively together
Digital tattoo/Digital footprint	Online reputation that is permanent
Email	A tool for online communication
Hazards	Areas/items that could cause damage or injury
Network	Devices are connected together usually by cable or Wi-Fi.
Password	A way to ensure no one access your data or information
Respect	Be mindful of how you are responding to others
Secure	Making sure your online information is safe

STOP cyberbullying

Social media settings
· Profiles should always be set to private
· Profile images should not reveal locations
· Profile images should not be easy to recognise; it is much better to use a picture of a pet or a cartoon character
· Don't reveal locations — this makes it easy to find out where you are.
· Making your date of birth public makes it easy for hackers to steal your personal information and set up fake accounts in your name.
· You should never reveal your phone number, email address, or home address on a public site
· You should never reveal your current location on social media
· Putting your full name, including a middle name, makes it easy for someone to steal your personal information. Always use a nickname or shortened version of your name

Do you really want to send that?
Think before you click.
It is easy to send comments from the other side of a screen.
It is not easy to then remove them.
Actions need to be considered before mistakes are made.

Using technology appropriately, carefully and positively leads to positive digital citizens.
Digital citizenship to the responsible use of technology by anyone who uses computers, the Internet and digital devices to engage with society on any level.

Secure passwords
No one should be able to guess/work out your password.
Current government advice is to use 3 random words

Computer Science Knowledge Organiser

USING MEDIA: Gaining support for a cause

Different **application software** can be used for different purposes. It is important to think about what the task is and select the most **appropriate** one.

The **application software** chosen allows different formatting techniques to be used.

Formatting can be using tools like **bold**, *italic*, underline, changing colour, font style and size, alignment and many more.

Formatting can be used for many reasons. Including to make text easier to read, easier for the audience to use, highlight important information or attract attention.

It is important to select the appropriate formatting for the audience

Images play an important role when using software. It is important that **appropriate** images are used, ones that meet the requirements of the **audience** and the **purpose** of whatever is being created.

When researching and reading stories online you need to check that they are **reliable**, **trustworthy** and **credible**. Anyone can upload content so it is not always accurate.

· Check the source, find out which other sources are reporting it

· Check whether other sites are saying the same thing,

· Don't trust all the stories and all pictures

· Check for facts not rumours

· Check any citations or references

When you are researching a topic you will come across a lot of useful information. Once the reliability and accuracy has been checked you may decide to use the information. Check the law

Plagiarism using someone else's work or ideas and using them as if they were your own. This can be any type of work either printed or electronic.

Citation the audience where the information came from. Anything that is used needs to have **citations** or **references** to the original work. the audience details about the source so that they can see that the source is relevant and recognised so they can find the source themselves if they want to.

Copyright Law gives the creators of literary, dramatic, musical, artistic works, sound recordings, broadcasts, films and typographical arrangement of published editions, rights to control the ways in which their material may be used.

Creative Commons(CC) license is one type of copyright license. This allows the copyright owner to say exactly what other people can and can't do with or to their work.

They help copyright owners share their work while keeping the copyright. For example, a Creative Commons licence might allow other people to copy and distribute the copyright owner's work, if they give them credit.

Making sure the item being created is successful and actually does what it was intended to do is important.

Setting **success criteria** should be determined at the start of the project and can be revisited frequently.

The success criteria should be clear and easy to follow.

A **blog** is simply a regularly updated website or web page, typically one run by an individual or small group, that is written in an informal or conversational style.

Computer Science Knowledge Organiser

NETWORKS

Key Words	
Bandwidth	Amount of data that can be moved from one point to another in a given time.
Buffering	Data arriving slower that it is being processed
Internet	A worldwide network of computers
internet of Things (IoT)	Takes everyday 'things' and connects them to the Internet e.g. smart light bulb, fridge, heating etc.
IP address	A unique address for every device on the internet
Packet	Networks send/receive messages in units called packets
Protocol	All methods of communication need rules in place in order to pass on the message successfully. These sets of rules are called 'protocols'
Search Engine	A website that allows user to look up information on WWW e.g. Bing, Google etc.
Web browser	Piece of software(code) used to view information on the Internet
WWW	Part of the Internet that contains websites and webpages. NOT the same as the Internet.
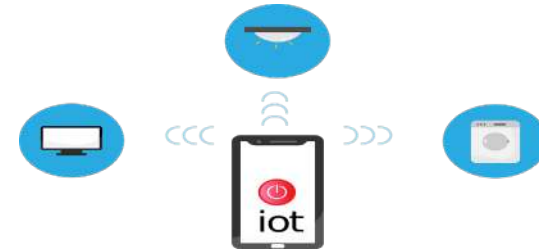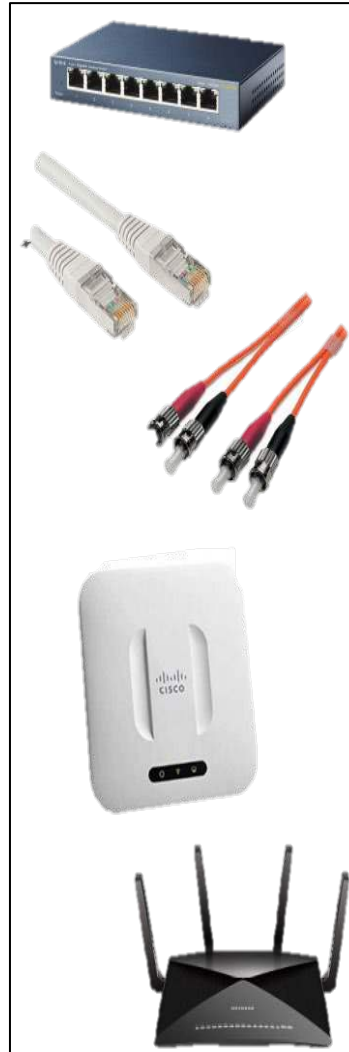
A **network** is where devices are connected together usually by cable or Wi-Fi. This could be a few computers in a room, many computers in a building or lots of computers across the world.

Wired and **Wireless** data transmission

A computer network can be either wired or wireless.

· Wired networks send data along cables.
· Wireless networks send data through the air using radio waves.

Bandwidth—Bandwidth is the amount of data that can be moved from one point to another in a given time. Higher bandwidth = more data per second

Bandwidth is measured in bits per second
A bit is the smallest unit of data
Data transfer rates are now so good that bandwidth is usually measured in Megabits per second (Mbps)
1Mb—1 million bits

Internet services

There are a range of services provided by the internet. These include:
· World Wide Web
· Email
· Online gaming
· Instant messaging
· Voice over IP (VoIP) – audio calls
· Internet of Things (IoT)
· Media streaming (e.g. watching Netflix online)
The rules for each service are different.
As a result, a different protocol is used.

HTTP—HyperText Transfer Protocol—used so that data can be understood when sent between web browsers and servers.
HTTPS—is the secure version of HTTP where data sent is encrypted.

Network Hardware—physical equipment required to set up a network
Hub—Connects a number of computers together. Ports allow cables to be plugged in from each connected computer.
Router—Used to connect two separate networks together across the internet
Sever—A powerful computer which provides services to a network
Cable—Used to connect different devices together. They are often made up of a number of wires.

Computer Science Knowledge Organiser

PROGRAMMING 1 - SCRATCH

Key Words	
Abstraction	Identify the important aspects to start with
Algorithm	Precise sequence of instructions
Computational thinking	Solving problems with or without a computer
Debugging	Looking at where a program might have errors or can be improved
Blocks	Scratch bricks that we can use to code algorithms
Decomposition	Breaking down a problem into smaller parts
Execute	A computer precisely runs through the instructions
Iteration	Doing the same thing more than once
Selection	Making choices
Sequence	Running instructions in order
Variable	Data being stored by the computer

A computer inputs (this might be automatic or via human input), processes that input and then produces an output. as well as producing an output. For example when you use a keyboard and mouse, the mouse is used to input data into the computer to be processed and the output is visible on the computer monitor.

Variables are used to store data for use in a program. They can store lots of different types of data such as names and scores.
So set variable score to equal 0
If I score a goal then increase variable by 1

Operators
Comparison operators allow us to compare using **< > +**
Logical operators use **AND, OR, NOT**

A **selection** statement in programming allows a computer to **evaluate** an **expression** to **'true'** or **'false'** and then perform an action depending on the outcome.

Count controlled iteration will execute the commands a set number of times.
Example**:** "perform 200 star jumps"

Condition-controlled iteration will execute the commands until the condition you set is no longer being met.
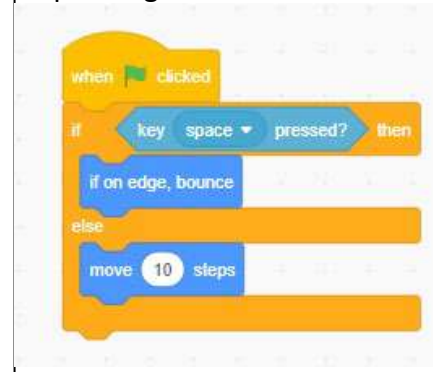Example: "perform star jumps until 3pm"

Sequence, **selection** and **iteration** are all processes. In order for computers to perform tasks there is more that is needed. For example a computer will take an **input** (this might be automatic or via human input) which the computer will then **process** and the **output** will be visible on the computer monitor.

Scratch is a block based programming language. We can use predefined code drag and drop blocks to create a sequence of code.

We use algorithms in every day life . Example an algorithm to get to school, to make a cup of tea, to make a pizza, to order a takeaway. These are just precise sequences of instructions.

Computer Science Knowledge Organiser

MODELLING DATA – SPREADSHEETS

Data and **information** are not the same.
· **Data**: facts and figures in their raw form
· **Information**: data that has been given structure or meaning

For example:
Data—10, 2107, 18
Information—Time 10am, date 21st July, temperature 18°

The tool bar ribbon at the top allows for **formatting** of the data. Changing colour, size, style etc
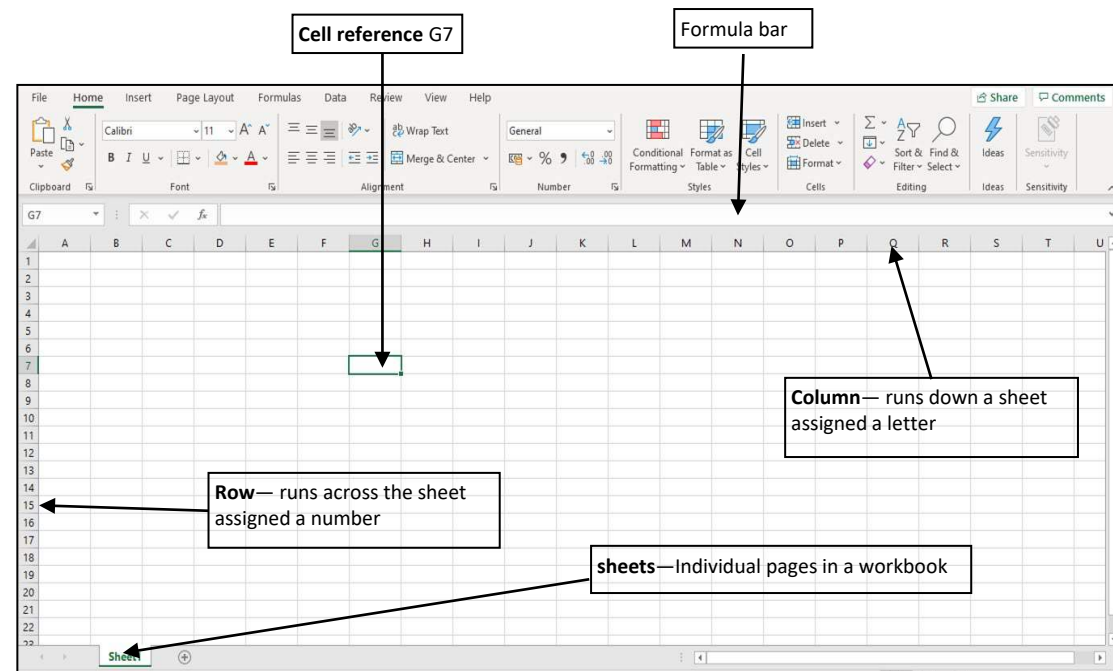
There is a **sort** and **filter** tool that allows for data to be arranged in ways that is most useful for the user e.g. alphabetical, highest, lowest etc.

Conditional formatting can be set to allow the cell **formatting** to **automatically** change if certain criteria is met. For example a cell might turn red if there was a negative number

In order to complete calculations spreadsheets make use of **formula**.
A formula uses the following basic symbols
The **=** symbol is always at the start of a formula
The **+** symbol is used for addition
The **-** symbol is used for subtraction
The ***** symbol is used for multiply
The **/** symbol is used for divide

Functions are also used which are predefined formula.

Cell reference G7

Formula bar

Column— runs down a sheet assigned a letter

Row— runs across the sheet assigned a number

sheets—Individual pages in a workbook

Common **functions** are
SUM—adds a range of cells
MAX—returns the largest value from selected cells
MIN—returns the smallest value from selected cells
AVERAGE—provides the arithmetic mean (average) of selected cells
COUNTIF—counts the number of cells in a range that meet the given criteria
IF— allows logical comparisons
COUNTA—counts cells that are not empty

Data can be gathered from different sources
· **Primary** source: collecting data yourself
· **Secondary** source: someone else collects the data

Each box on a spreadsheet is called a **cell** and they hold data.
Each **cell** has a unique **cell reference** to identify its location.

Design Specification – Key Questions

A	Aesthetics	What shape should the product be? What colour should be product be? What texture should the surface have?
C	Cost	What should the cost of the product be?
C	Consumer	Who is the client or the user of the product? What features of other similar products should it have? Does the client have any specific needs or wants for the product?
E	Environment	Should the product be made from recycled materials? How should the product be packaged? How will the product be disposed of when it is no longer needed?
S	Safety	What safety risks have to be considered? What safety standards must the product meet?
S	Size	How long, wide and tall should the product be? How much should the product weigh?
F	Function	What will the product be used for? How will it work? How should it be tested?
M	Materials and Manufacturing	What materials should the product be made from? Are there any limits on the sizes of the available materials? How many products need to be made? Which processes should be used to make the product?

Key Words and Definitions

Refuse	Is the product necessary?
Rethink	Are there alternative materials or design options that are more sustainable?
Reduce	Can the product be made from fewer materials? Can the amount of unsustainable materials be reduced?
Reuse	Can parts of the product be reused in a different product?
Recycle	Can the materials used be recycled? If the product made from recycled materials?
Repair	Can the product be repaired rather than being thrown away if it breaks?

Sustainability	The level to which resources can be used without them becoming unavailable in the future.
Carbon Footprint	Carbon foot print is the measurement/amount of greenhouse gases produced in the production of products.
Renewable Energy Source	A source that is quickly replaced by natural means and will not run out.
Non Renewable Energy Source	A source that cannot quickly be replaced and will eventually run out.

Design Process

Primary Research	Data gathered first hand directly from the client
Secondary Research	Data about the client that comes from a second hand source
Product Analysis	Looking at a product in detail to understand more about it using ACCESS FM
Design Brief	A summary of the design opportunity
Design Specification	A document that lists all the design criteria that the finished product must meet.
Design Development	Involves making a model of a design, which is then tested and evaluated. A new, improved prototype is made and the process is repeated until the finished design meets all the needs and wants of the client.
Testing	To check that the product meets the design specification and the needs of the user.
Evaluation	Where a designer reflects on the design of a product, looks at what went well during testing and identifies ways that a product could be improved.
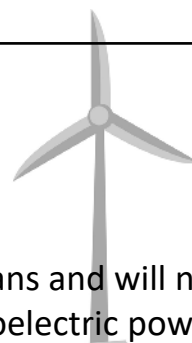
Renewable Energy Sources

A renewable energy source is quickly replaced by natural means and will not run out. Examples include wind power, solar power and hydroelectric power

Advantages	Disadvantages
It will not run out	Initial cost of installation is high
No carbon emissions	Some types of renewable energy are noisy
No fuel costs	Some types of renewable energy look ugly
No reliance on fossil fuels	Some types of renewable energy need constant sunlight or wind
	Unused electricity could be wasted
	Local habitat could be displaced
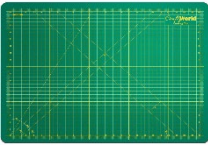
How can we reduce our impact on the environment?

.

- Use **renewable** materials rather than non-renewable means these can be replenished.
- If non-renewable materials are used such as plastic (oil) **carbon emissions** are given off resulting in global warming.
- Choosing **biodegradable** materials means they will break down naturally when the product comes to the end of its life. Non-biodegradable materials that have not been recycled will end up in the landfill or the sea damaging animals and habitats.
- Apply the **6Rs** to ensure minimal impact on the planet.

Tools and Equipment

	Name	• Use • Safety point
	Craft Knife	To cut paper, card and boards **Safety Rules when using it** Lock must be on Point downwards Use a cutting mat and safety ruler
	Cutting Mat	Placed under the material **Safety** It stops the knife from slipping
	Metal Safety Ruler	Used when cutting the material with a craft knife. **Safety** Fingers stay in the indent so protected from the blade
	Glue Gun	Used to join card and boards together **Safety** The glue and nozzle is hot Be careful not to use too much glue

Health & Safety

Follow all verbal and written safety instructions, safety signs and floor markings.
Wear an apron and remove any loose clothing or jewellery. Tie back long hair.
Always walk – never run
Do not crowd other people
Reports any accidents that occur immediately to the teacher.
Do not leave anything on the floor
Leave the workspace clean and tidy when you have finished.

Sources of Timber

Timber is made from trees that are chopped down and then cut into planks in a sawmill.

Timber can be a renewable resource if grown in well-managed forests. Responsible management includes planting trees as older trees are cut down. Timber grown this way can be identified by the Forest Stewardship Council FSC,

FSC Forest Stewardship Council®
FORESTS FOR ALL FOREVER™

Types of Timber

- **Hardwood** comes from deciduous trees, which are trees that shed their leaves each autumn. Hardwood trees can take 100 years to grow to a size where they can be harvested for timber.

- **Softwood** comes from coniferous trees. These are trees that keep their leaves or needles all year round, so they typically grow faster than hardwood trees. Softwood trees can reach a size where they can be harvested for timber in 25-30 years so more eco-friendly and cheaper.

- **Manufactured Boards** are made by gluing particles or pieces of wood together. These can be the waste materials from cutting of hardwood softwood or can be recycled woo.

Hardwoods

Type	Properties	Uses
Oak	Very strong and hard Light brown colour	High quality furniture
Mahogany	Fairly strong and durable Pink to reddish brown colour	High quality furniture
Beech	Hard and tough, but easy to work with Light brown with darker brown flecks	Wooden toys, household items and furniture
Ash	Tough and flexible Light creamy brown colour	Tool handles, sports equipment
Balsa	Soft – can be marked using finger Off white to tan colour	Modelling

Softwoods

Type	Properties	Uses
Pine	Fairly strong, easy to work with Light brown or yellowish colour	Interior structures in buildings and furniture
Spruce	Strong and hard, but low resistance to decay. Yellowish-white colour	Wooden aircraft frames

Manufactured Boards

Type	Properties	Uses
Medium Density Fibreboard	Made from fine particles of timber, mixed with glue and compressed together. Smooth, even surface, easily machined	Low cost furniture
Chipboard	Made from course chips of timber, mixed with glue and compressed together. Rough surface with uneven texture	Kitchen worktops (covered with melamine formaldehyde)
Plywood	Made from layers of veneer glued together with the layers grain structures at right angles to each other Layers are cut from timber then glued together	Furniture making Marine plywood is used for building boats

Hygiene and Safety

LOOK COVER WRITE CHECK

Personal hygiene-people are sources of contamination. Personal hygiene must be followed to prevent food poisoning such as:-Wash hands before and after handling foods; tie or cover hair; remove jewellery;

Cross Contamination-The transfer of bacteria into food: Food to food, Food handler to food, Equipment to food

High Risk foods are foods high in protein and moisture e.g. meat, dairy, cooked rice, gravy. Must be stored at a temperature below 5°C to prevent bacteria growth.

Preparing food safely:

Cleaning
Keep yourself and hands clean
Use clean equipment
Use clean dish clothes and tea towels

Cooking
Cook raw foods until the core is 75C, check with a temperature probe.
Reheat foods to 75C
Never reheat food more than once

Chilling
Cool cooked foods for no longer than 90mins before refrigerating
.
High risk foods must be stored below 5C

Cross Contamination
Stroe raw foods away from cooked foods
Use separate equipment (chopping boards and utensils
Wash hands after handling raw meat and before preparing food

Code those rules in the picture CC for ways to prevent cross contamination

Wash hands with soap and water before, during, and after preparing food and before eating

Avoid unpasturize milk and juices

Separate raw meat, eggs, seafood, and poultry from other foods in fridge

Use soap and hot water to wash knives, utensils, cutting boards, and countertops

Rinse produce

Use separate cooking utensils and plates for raw meat, poultry, and seafood

CRISPER DRAWER

rywell

Preventing cross contamination

COLOUR CODED CUTTING BOARDS
RAW MEAT
RAW FISH
COOKED MEAT
SALAD & FRUIT
VEGETABLES
BAKERY & DAIRY

Eatwell Guide

40%

38%

12%

8%

1%
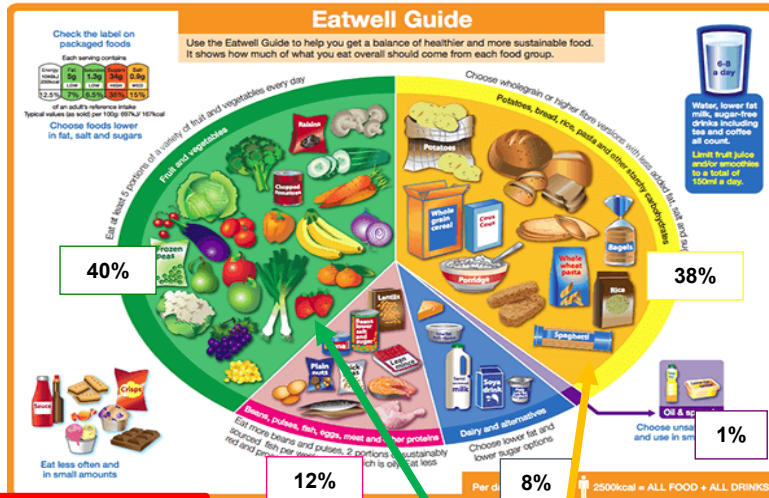
Occasional treats: Foods high in fat and sugar

Eat plenty of these because:

*Adds bulk so gives a feeling of fullness.
*Slow releasing energy.

Great source of fibre Packed full of vitamins, minerals and fibre.

LOOK COVER WRITE CHECK

Nutrient	How	Why
Cutting Fat	*Eat more chicken and fish and less red meat *Use skimmed or semi-skimmed milk instead of full fat milk *Grill food instead of frying *Cut fat off meat before cooking	*Overweight *Obesity *Increase in Cholesterol in the blood *Heart attack. *Type 2 diabetes
Cutting down on Sugar	*Avoid fizzy drinks and high calorie drinks. Have fruit juice or water instead. *Eat fewer cakes, biscuits and sweets *Eat more fruit as an alternative *Try the natural sweetness of fresh fruit in puddings instead of sugar	*Overweight *Obesity * *Heart attack. *Type 2 diabetes
Have more Fibre	•Eat lots of fresh fruit and vegetables •Eat more wholemeal flour, bread, pasta, rice •Use more canned beans, peas and lentils - eat more •Try jacket potatoes with a variety of fillings	*Helps to protect against diseases of the bowel. *Gives you a feeling of fullness and so can help in diets.
Eat less salt	•Use herbs and spices as an alternative to salt	* Too much salt can lead to high blood pressure. This will increase the risk of suffering heart problems and strokes.

Food miles and the environment

Key Term	Meaning	
Food Miles	the distance food has travelled to get to your plate. Food must travel from the farm it is grown on or the factory it is made in to a supermarket or shop to be sold	Chocolate – ingredients coming from all over the world has a lot of food miles.
Carbon Emission	harmful gases such as carbon dioxide are released into the earth's atmosphere when we use fossil fuels (coal and oil) to provide energy. We need energy to grow, produce and transport food. Some food uses more energy than others.	
Local	a place close to where you live. Fruit and vegetables that were grown near you would be considered local.	Strawberries grown in Manchester/UK

Task: When you next visit your supermarket check the food labels to see where the fruits and vegetables in your basket comes from.

LOOK   COVER   WRITE   CHECK

https://www.bbc.co.uk/bitesize/topics/zjr8mp3/articles/zjnxwnb

Be Safe

First Aid: How can we help someone who is bleeding?

Step 1: Gloves

Step 2: Pressure

Step 3: Apply a dressing

Step 4: Apply further dressings

Step 5: Objects (do not remove). Place pads or dressings either side without removing it.

Be Respected

Gender Stereotypes

Gender Identify
how a person thinks about their own gender

Gender Expression
how a person displays their gender identity publicly

Biological Sex
sex assigned at birth

Sexual Orientation
who we are attracted to
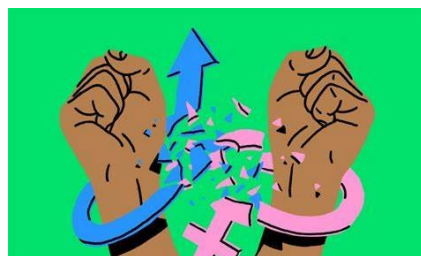
Support

youngstonewall.org.uk

genderedintelligence.co.uk

childline.org.uk

Careers

Where am I going and how do I get there?

Aspirations - a hope or ambition of achieving something

Profession - a paid occupation, especially one that involves prolonged training and a formal qualification.
"his chosen profession of teaching"

Who can you go to for advice and information?
Grainne – school careers advisor, family, teachers, careers section of library, internet searches

Be Healthy

How do we keep good personal hygiene?

- Clean your teeth twice a day
- Always keeping your hands clean
- Keep your private parts clean and fresh (girls should avoid soap on their private parts as they are actually self-cleaning and soap can cause infections like thrush, but boys should always have a good wash down below)
- Always wash your armpits every morning and apply deodorant
- Wash your hair every 2-3 days
- Use a nailbrush so there is no dirt under your nails
- Wear clean clothes every day
- Wash your feet every day
- Always wear a clean pair of socks

Be An Active Citizen

How are we Global Citizens?

Oxfam sees a global citizen as someone who:

➢ Is aware of the wider world and has a sense of their own role as a world citizen
➢ Respects and values diversity
➢ Has an understanding of how the world works economically, politically, socially, culturally, technologically and environmentally
➢ Is outraged by social injustice
➢ Participates in and contributes to the community at a range of levels from local to global
➢ Is willing to act to make the world a more sustainable place
➢ Takes responsibility for their actions

PSHE

Be Safe

First Aid: What basic life support can we offer?

1. **Check for danger**
   - Always make sure the area is safe

2. **Response**
   - Check the casualty's response. Ask questions and gently tap shoulders. Say "open your eyes!"

3. **Shout for help**
   - Anyone nearby can assist you

4. **Airway**
   - If not clear, then open by tilting the head back, use one hand on forehead and two fingers under the chin

5. **Breathing**
   - Check for normal breathing. Do not put your face next to theirs, instead look at chest rising and falling only. (Remember 10 seconds!)

6. **Circulation** (only if breathing normally)
   - Check the casualty for bleeding

Be Respected

Healthy Relationships

Spending time together Making time for each other– it helps to strengthen relationship bonds. However, spending almost every moment together can be unhealthy because it reduces contact with friendship and family networks.

Knowing each other's family and friends Connecting the people you care about can deepen and strengthen relationships.

Having lots in common-interests can be what initially sparks a connection with someone, and maintains that connection over time. Healthy couples maintain a balance between time spent together and with others.

Being open and honest Honest communication is healthy. However, being brutally honest is often disrespectful and can damage the receiver's self-esteem.

Humour Finding things to laugh at together is healthy – it helps couples to connect. However, humour directed at a partner which goes too far can damage their self-esteem and is disrespectful.

Never having an argument Good relationships involve negotiation so sometimes it is healthy to disagree. The way this is dealt with shows the health of the relationship and the qualities of the people in it

childline
ONLINE, ON THE PHONE, ANYTIME
childline.org.uk | 0800 1111

Careers

What does assertiveness mean?

Assertiveness - being self-assured and confident without being aggressive

You can be assertive by:
- Using 'I' statements
- Practise saying 'no'
- Rehearsing what you want to say
- Using body language
- Controlling your emotions

Aggressive – ready or likely to attack or confront

Passive - accepting or allowing what happens or what others do, without active response or resistance

Be Healthy

"A complete state of physical, mental and emotional wellbeing not merely the absence of disease."
World Health Organisation's definition of health

Mental and physical health are closely linked, for example by promoting our physical health (through exercise, healthy food choice and quality sleep) a person is also promoting their mental health.

There are lots of places to get advice about emotional wellbeing, social media or to discuss feelings.

ChildLine: www.childline.org.uk Phone: 0800 1111

Young Minds: www.youngminds.org.uk

Samaritans: www.samaritans.org Phone: 116 123

Be An Active Citizen

What is HBT discrimination and how can it be stopped?

H = Homophobic
B = Biphobic
T = Transphobic

Discrimination is:
"The unfair or prejudicial treatment of someone based on a characteristic that they cannot change".

Discrimination is wrong in all forms and can manifest in many different ways including bullying & isolation of others. It can also take place directly or indirectly, verbally, physically, emotionally or on-line. It should not be dismissed as 'banter.'

Report bullying. Don't use bi-trans or homophobic language.

Record IT REPORT IT DON'T SUPPORT IT

Art – Tier 2 and Tier 3 language
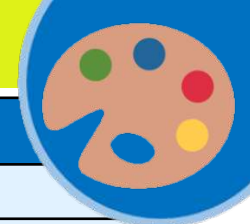
Type		Keyword	Definition
SUMMER: Art	Tier 2 language	Layering	Placing one element over another. This could be coloured pencil, paint, collage etc…
		Overlapping	Creating the illusion of three-dimension by placing elements on top of each other.
		Intricate	Having many closely combined elements or highly detailed.
		Blending	The technique of gently mixing two or more colours or values to create a gradual transition or to soften lines.
		Technique	The manner and ability with which an artist applies their technical skills.
	Tier 3 language	Harmonious	A colour that sits next to another on the colour wheel or very close to it. For example, red and orange.
		Complementary	Pairs of colours that contrast with each other more than any other colour, they are often opposite each other on the colour wheel.
		Rendering	The process of creating the effects of light, shade and light source to achieve contrast in drawings.
		Gradient	A gradual blending from one colour to another colour or from light to dark.
		Abstract	Art that does not resemble a specific thing or subject matter, but instead use shapes, colours, forms and gestural marks to achieve its effect.

Drama – Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER: Drama	Tier 2 language	Dialogue	The words spoken between 2 or more characters
		Narration	Adding a spoken commentary for the audience about what is happening on stage
		Projection	Speaking loud enough for the audience to hear
		Posture	The way a character stands or sits
		Tone	The way you say something to show the emotion of your character e.g. an angry tone
	Tier 3 language	Mark the Moment	A dramatic technique used to highlight a key moment in a scene.
		Characterisation	Using appropriate vocal and physical skills to perform as a character different to yourself
		Body as Object	When performers use their body to create an object onstage
		Split Focus	Two scenes happening on stage at the same time but set in different places or times
		Audience Awareness	Being aware of where your audience are sat and not turning your back on them

Design and Technology – Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER: DT	Tier 2 language	Properties	The physical, chemical, or mechanical components of a specific product that would determine its functionality and manufacturability.
		Evaluation	Critically consider how effective or successful a design is.
		Development	Refining ideas to produce a final solution; taking into account all the constraints of costs, materials, function, manufacturing, aesthetics etc.
		Renewable	A natural resource or source of energy that is not depleted when used.
		Analysis	To look very closely at the problem. To break down into basic parts so that the problem can be understood.
	Tier 3 language	Prototype	A simple experimental model of a proposed solution used to test or validate ideas.
		Specification	A list of features that a product should have.
		Biomimicry	The design and production of materials, structures, and systems that are modelled on biological entities and processes.
		Deciduous	A tree that sheds its leaves annually.
		Coniferous	A group of trees that have fruit called cones that they do not lose in the winter.

Computer Science – Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER: Computer Science	Tier 2 language	Audience	A group of people identified as being likely customers of a business or designing your work for.
		Promoting	To attempt to sell or popularise by advertising or publicity.
		Sources	A place, person, or thing (image or video) from which something originates or can be obtained.
		Formatting	Changing the layout of a document to look more professional or fit the purpose.
		Application	The action of putting something into operation.
	Tier 3 language	Digital Tattoo	Online reputation that is permanent.
		Catfishing	A person pretends to be someone there not.
		Creative Commons	A type of copyright license. Allows the copyright owner to say exactly what other people can and can't do with or to their work.
		Licensing	An official permission or permit to do, use, or own something.
		Plagiarism	Using someone else's work or ideas and using them as if they were your own.

English - Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER 1: ENGLISH	Tier 2 language	Symbolic	Something that is designed to represent (or symbolise) something else.
		Describe	To give a detailed account in words.
		Genre	A style or category of art, music or literature.
		Intentions	The purpose or reason for doing something.
		Creative	Relating to or involving the use of the imagination or original ideas to create something.
	Tier 3 language	Oppression	Prolonged cruel or unjust treatment or exercise of authority.
		Tyrant	A cruel and oppressive ruler.
		Inference	A conclusion reached on the basis of evidence and reasoning.
		Dystopian	An imagined state or society where there is great suffering and injustice.
		Metaphor	Comparing something by saying it is something else (e.g. the man was a mountain).

Type		Keyword	Definition
SUMMER 2: ENGLISH	Tier 2 language	Engage	To engross or involve an audience, so that you capture their attention.
		Gothic	Writing that has an overall atmosphere of exoticism, mystery, fear and dread.
		Language	A system of communication used by a particular country or community.
		Story	An account of imaginary or real people and events told for entertainment.
		Character	A person in a novel, play for film.
	Tier 3 language	Romanticism	An 18th century movement in literature that emphasised nature, imagination, emotion and the individual.
		Narrative	A spoken or written account of connected events; a story.
		Personification	Giving an inanimate object human qualities.
		Totalitarian	A form of government that attempts to assert total control over the lives of its citizens.
		Simile	Comparing something using 'like' or 'as'.

Food technology – Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER: Food Technology	Tier 2 language	Contamination	Making something unclean or unsuitable by contact with something else.
		Hygiene	Conditions or practices used to make something clean to help maintain good health /prevent diseases.
		Bacteria	Microscopic organisms not visible with the naked eye. Some are good and some can make us unwell.
		Microbes	Another term used to describe bacteria or viruses
		Protein	A nutrient found in some plant foods (such as lentils, beans and nuts) and animal foods (such as meat, fish, eggs)
	Tier 3 language	High risk foods	Foods high in protein and moisture
		Cross contamination	The transfer of bacteria into food such as from food to food, person to food or equipment to food.
		Ambient temperature	Normal room temperature. 20 - 25°C
		Antibacterial	Working against or prohibiting the growth of bacteria.
		Danger zone	The temperature range in which bacteria thrive. 5 - 63°c.

Music – Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER: Music	Tier 2 language	Sharp	A note raised by one semitone
		Flat	A note lowered by one semitone
		Pitch	How high or low the sounds are
		Ascending	When the music rises in pitch
		Descending	When the music falls in pitch
	Tier 3 language	Treble Clef	A musical sign that indicates the pitch is suitable for RIGHT HAND piano or instruments such as flute, violin and trumpet
		Chord	A collection of notes played at the same time
		Melody	The tune
		Rhythm	Different lengths of notes create a pattern called the rhythm, this fits into the beat
		Stave/Staff	The five lines that music is written on

Geography - Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER 2: GEOGRAPHY: Extreme Environments	Tier 2 language	Adaptation	Change an organism makes to better suit its environment
		Exploit	Make full use of a resource, potentially in an unsustainable way
		Precipitation	Any type of water that falls from the sky (rain, snow, sleet, hail)
		Carbon sink	A natural environment that is able to absorb carbon dioxide from the atmosphere
		Social	Something relating to people
	Tier 3 language	Cyclone	An area of low pressure, where air is rising
		Anti-cyclone	An area of high pressure, where air is sinking
		Biome	A large scale ecosystem with specific species of flora and fauna living within a particular climate
		Tundra	A biome forming in areas of high pressure, characterised by extreme cold temperature, high wind speeds and low precipitation
		Latitude	A measurement of the distance from the equator

Type		Keyword	Definition
SUMMER 2: GEOGRAPHY: Environmental Concerns	Tier 2 language	Atmosphere	The layer of gases surrounding Earth
		Greenhouse Gas	A gas that contributes to the greenhouse effect, such as carbon dioxide
		Global Warming	A gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect
		Sustainable	To use a resource to meet the needs of now and future generations with limited/no impact on the environment
		Arid	An area which has very little or no rainfall
	Tier 3 language	Carbon Footprint	the amount of carbon dioxide a person releases into the atmosphere
		Food Miles	How far food travels from producer to consumer
		Environmental Migrant	People who are forced to leave their home region due to sudden or long-term changes to their local or regional environment
		Desertification	The process that sees productive land turned into non-productive desert
		Drought	A prolonged period of abnormally low rainfall, leading to a shortage of water

History - Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER 1: Medieval Realms	Tier 2 language	consequence	A result of an event happening
		disease	An unhealthy condition caused by bacteria. It causes symptoms which will help people to identify which disease it is.
		famine	A severe shortage of food
		hygiene	Conditions that allow people and the environment to be healthy. Unhygienic conditions cause dirt and disease.
		social	Used to describe anything relating to human society living together (e.g. social factors)
	Tier 3 language	barber surgeon	A medieval doctor who specialised in surgery such as amputations. They received no proper training.
		bloodletting	The medical practice of removing somebody's blood
		Bubonic plague	An infectious disease that was known as the Black Death. It caused swellings called buboes, fever, and could kill people.
		buboes	Swellings under the skin that were a symptom of the Bubonic plague
		cesspit	A pit which would contain great amounts of rubbish and human waste

Type		Keyword	Definition
SUMMER 2: HISTORY	Tier 2 language	Protestant	Denomination of Christianity formed after Henry VIII broke from the Catholic Church
		Monarchy	A king or Queen, royal family of a country
		Martyr	Somebody who dies for a cause, usually religious
		Pope	Leader of the Catholic Church
		Pauper	Someone with no job who relies on charity
	Tier 3 language	Heir	The next inline to the throne, usually the son or daughter of the King or Queen
		Excommunicate	To officially exclude someone from the Christian Church. The Pope excommunicated Elizabeth from the Catholic Church.
		Heretic	A person believing in or practising religious heresy (different from the 'norm')
		Armada	A fleet of warships
		Privateers	A ships captain with royal permission to attack foreign ships

Maths - Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER 1: MATHS	**Tier 2 language**	value	Another word for a number
		amount	Another word for a total or number e.g. finding a fraction of an amount
		inverse	The opposite or what you do to get back to where you started
		simplify	Write something in its easiest form. E.g. 6/10 can be simplified to 3/5
		method	A way of working something out
	Tier 3 language	Product	Multiply: The product of 2 and 3 is 6 as 2 x 3 = 6
		sum	Add or total: The sum of 4 and 5 is 9 as 4 + 5 = 9
		difference	One number subtracted from another
		numerator	Top number in a fraction
		denominator	Bottom number in a fraction

Type		Keyword	Definition
SUMMER 2: MATHS	**Tier 2 language**	probability	The chance of something happening
		equivalent	Equal in value
		convert	Change from one form to another
		outcome	How a event turns out or ends
		connection	How two or more things are linked
	Tier 3 language	Isosceles triangle	Three sided shape which has two equal sides and angles
		Equilateral triangle	Three sided shape where all side lengths and angles are equal
		certain	Having a probability of 1 or 100%
		Impossible	Having a probability of 0 or 0%
		ratio	A way of comparing parts, written as 2:1 and read as 2 to 1

MFL - Tier 2 and Tier 3 language

Type		Keyword	Definition
Tier 2 language		noun	a word used to identify any of a class of people, places, or things
		verb	a word used to describe an action, state, or occurrence such as *hear*, *become*, *happen*
		adjective	a word naming an attribute of (describing) a noun, such as *sweet*, *red*, or *technical*
		conjunction	a word used to connect clauses or sentences or to coordinate words in the same clause (e.g. *and*, *but*, *if*).
		translate	Convert / express the sense of (words or text) in another language.
Tier 3 language		SHET (Spanish)	Son – (they) are Hay - (there is/ there are) Es ((it) is Tiene) (it) has)
		IESAO (French)	Il y a - there is Est -is Sont -(They) are A - (he/she/it) has Ont – (they) have
		WWWWWW	Who What Where When Why
		AVOW	Adjective Verb Order of Words

Type		Keyword	Definition
Tier 2 language		noun	a word used to identify any of a class of people, places, or things
		verb	a word used to describe an action, state, or occurrence such as *hear*, *become*, *happen*
		Adjectival agreement	**the adjective 'agrees' with the noun it's describing in gender and number**
		conjunction	a word used to connect clauses or sentences or to coordinate words in the same clause (e.g. *and*, *but*, *if*).
		Subject pronoun	**those pronouns that perform the action in a sentence**. They are I, you, he, she, we, they, and who
Tier 3 language		SHET (Spanish)	Son – (they) are Hay - (there is/ there are) Es ((it) is Tiene) (it) has)
		IESAO (French)	Il y a - there is Est -is Sont -(They) are A - (he/she/it) has Ont – (they) have
		TOPCAT	Tenses Opinions Pronouns Conjuctions Adjectival Agreement Translate
		AVOW	Adjective Verb Order of Words
		PALM	People Action Location Mood

Religion and Ethics - Tier 2 and Tier 3 language

Type	Keyword	Definition
Tier 2 language	Forgiveness	To ask for your wring doings to be removed to create a 'clean slate' for bot parties
	Repent	To plead for forgiveness from God
	Commitment	To be dedicated to something
	Duty	Something you ought to do and have no choice
	Community	A group of people who share the same values
Tier 3 language	Kiddush/Havdalah	Blessings over wine or over a candle during Sabbath celebrations in Judaism
	Shofar	A horn which is blown on jewish New Year and in worhsip
	Rosh Hashanah	Jewish New Year
	Bar/Bat Mitzvah	Son/Daughter of the Commandments
	Mazel Tov	Good luck! Or 'Congratulations' in Hebrew

SUMMER 1: RE

Type	Keyword	Definition
Tier 2 language	Virgin	Someone who has never had sex
	Divine	God-like or heavenly
	Conceive	The fertilization of egg and sperm to create a pregnancy
	Feminist	A person who supports the equal rights and equal opportunity of women
	Deity	A god. Usually used when describing belief in many gods.
Tier 3 language	Purim	Jewish festival about hoe Esther saved the Jewish people
	Pantheon	A group or collection of gods.
	Trevedi	The 3 most important female deities: Lakshmi, Parvati, Saraswati
	Immaculate Conception	Mary was pure and perfect to be able to conceive or carry the baby Jesus
	Assumption	The belief the Virgin Mary was taken to Heaven before she died to be with Jesus.

SUMMER 2: RE

Science - Tier 2 and Tier 3 language

Type		Keyword	Definition
SUMMER 1: Electricity and sound	Tier 2 language	Conductors (electrical)	Materials through which charges can move around easily.
		Current	Flow of electricity (electrons) in a circuit
		Frequency	Number of vibrations in one second
		Vacuum	Medium where there are no particles
		Sound wave	A wave that is caused by particles vibrating that make the neighbouring particles vibrate making a wave of energy
	Tier 3 language	Parallel Circuit	A circuit with branches that split apart and join up back again
		Resistance	Way of saying how difficult it is for electricity to flow through a material (insulators have high resistance)
		Amplitude	Maximum distance moved by the particle from its mean position (size of vibrations)
		Longitudinal wave	Wave in which vibrations are in the same direction as the direction of the movement of energy
		Decibels	A unit for measuring the loudness of sound

Type		Keyword	Definition
SUMMER 2: Food, Nutrition, Plant reproduction	Tier 2 language	Balanced diet	A diet that contains all the nutrient food types the body needs in the right proportion
		Deficiency disease	A disease caused by a lack of a nutrient
		Kingdoms	Groups in which organisms can be divided into (Animals. Plants, Fungi, Bacteria, Protoctists)
		Extinction	When an organism dies out completely and no more individuals of that species are left
		Competition	When organisms living in an area compete with each other for the same factors like space, light, food, water, etc.
	Tier 3 language	Malnutrition	Problem caused by when there is too much or too little of a nutrient in a diet
		Enzymes	A substance that can speed up reactions in a living organism. These are also called biological catalysts and are protein molecules
		Villus (plural villi)	Small finger like projections in the small intestine that increase the surface area for absorption of digested food
		Sexual reproduction	Reproduction that involves the fusion of the male and female gametes to produce an individual
		Cross pollination	When pollen is transferred from one plant to a different plant of the same species