



£2

# KNOWLEDGE ORGANISER

NAME & FORM

YEAR 7  
SUMMER TERM



<b>English</b>	<b>3 – 6</b>
<b>Art</b>	<b>7 – 8</b>
<b>Drama</b>	<b>9 – 9</b>
<b>Music</b>	<b>10 – 11</b>
<b>Geography</b>	<b>12 – 13</b>
<b>History</b>	<b>14 – 16</b>
<b>RE</b>	<b>17 – 18</b>
<b>Maths</b>	<b>20 – 23</b>
<b>Spanish</b>	<b>24 – 30</b>
<b>Science</b>	<b>31 – 38</b>
<b>Computer Science</b>	<b>39 – 43</b>
<b>Design Technology</b>	<b>44 – 47</b>
<b>Food Technology</b>	<b>48 - 51</b>
<b>Satchel:one Log In Guide</b>	<b>52 - 53</b>

# English Knowledge Organiser

## SUM 1 Genre



### 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

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 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



Pattern of three



Numbers



Emotive language



Facts



Rhetorical question



Opinions



Statistics



Rhetorical questions



Use of tone



Mainly neutral tone



Assertion



Direct address



Exaggerate



## 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.



# 6



### **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...





## Loui Jover inspired portrait



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

KEY WORDS – test yourself! (definitions on the next page)  
 Geometric- Abstract- Pattern- Surrealism- Bold- Layering- Outline- Features- Bright- Complementary colours- Contrast- Shape



## Portraiture Year 7 Summer term

### Watercolour techniques

#### Colour to light gradient



#### Colour to colour gradient



#### Flat wash



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:

- 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?

7



## KEY WORDS AND MEANINGS:

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

8

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**

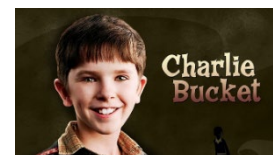
**AUDIENCE AWARENESS**

**GESTURES**

**STILLNESS**

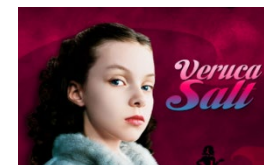
## PEER EVALUATION - WAGOLL

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 Violet Beauregarde:

Competitive, Spoilt, Arrogant, Careless



Words to describe Mike Teavee:

Lazy, Addicted, Arrogant, Snobby



Words to describe Augustus Gloop:

Greedy, Silly, Brutish, Lazy

## Keywords to recap and use

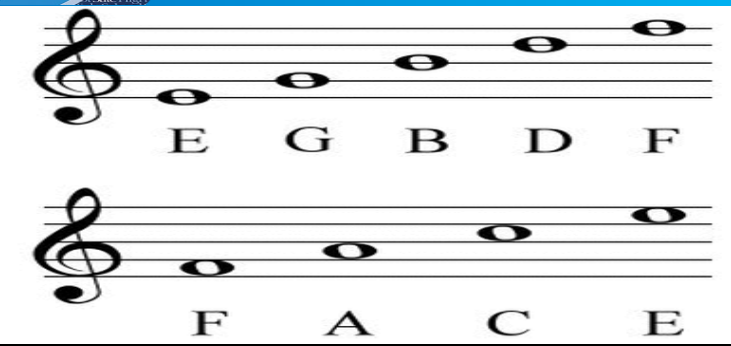
Pitch Pace Pause Tone Volume Accent Gesture Posture Facial Expressions Projection Diction Thought Track Multi-role Split Focus Audience

**Evaluative words:** successful improve effective captivating interesting focus





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



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

For example:  
**Every Good Boy Deserves Football**  
**Every Green Bus Drives Fast**

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

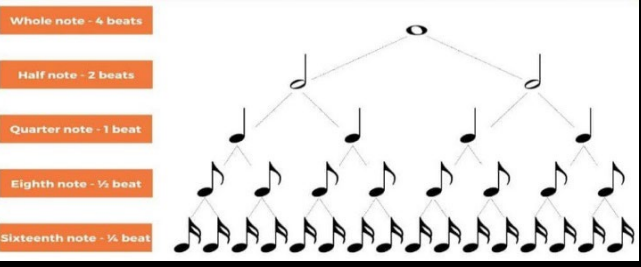
**E      G                  B                  D                  F**

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

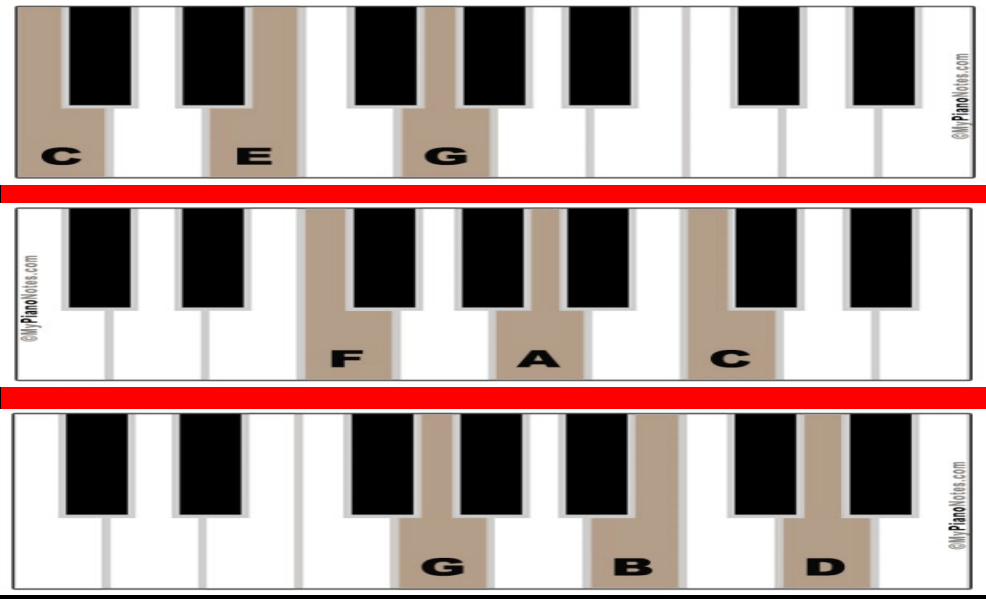
**KEY WORDS:** Treble Clef    Staff    Notation    Lines    Spaces  
 Rhyme    F-A-C-E    Ledger Lines    Pitch    Chord    Ascending /Descending  
 Semibreve    Minim    Crotchet    Quaver    Rest

## Keyboard Work 1

### Year 7 Summer Term



### Adding chords: Using the LEFT hand



**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

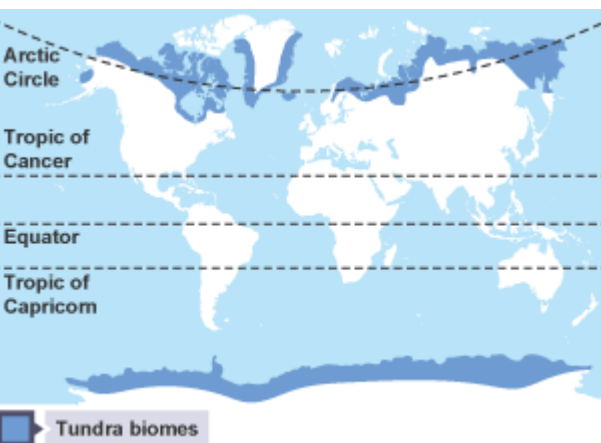
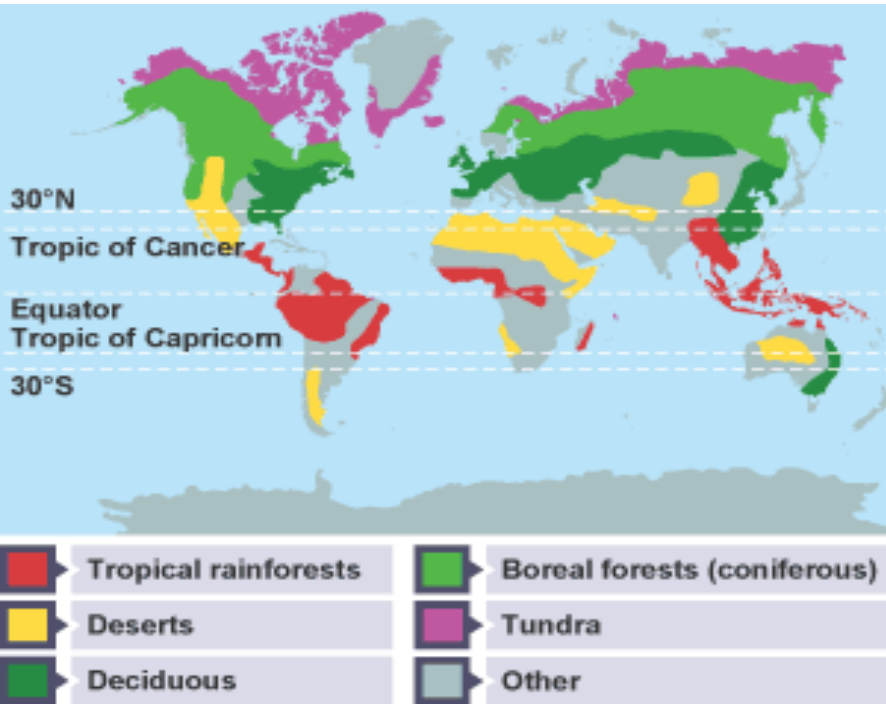
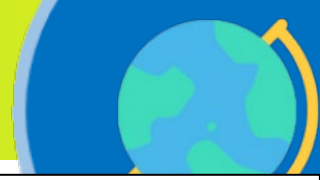
D $\flat$	E $\flat$	G $\flat$	A $\flat$	B $\flat$	D $\flat$	E $\flat$	G $\flat$	A $\flat$	B $\flat$	D $\flat$	E $\flat$	G $\flat$	A $\flat$	B $\flat$
C $\sharp$	D $\sharp$	F $\sharp$	G $\sharp$	A $\sharp$	C $\sharp$	D $\sharp$	F $\sharp$	G $\sharp$	A $\sharp$	C $\sharp$	D $\sharp$	F $\sharp$	G $\sharp$	A $\sharp$
C	D	E	F	G	A	B	C	D	E	F	G	A	B	C



**KEY WORDS AND MEANINGS: Tier two words in red. Tier three words in blue.**

<b>Treble Clef</b>	A musical sign that indicates the pitch is suitable for RIGHT HAND piano or instruments such as flute, violin and trumpet.
<b>Chord</b>	A collection of notes played at the same time
<b>Melody</b>	The tune
<b>Rhythm</b>	Different lengths of notes create a pattern called rhythm. This fits into the steady beat or pulse
<b>Stave/ Staff</b>	The five lines that music is written on
<b>Sharp</b>	Raising a note by one semitone
<b>Flat</b>	Lowering a note by one semitone
<b>Pitch</b>	How high or low the sound is
<b>Ascending</b>	Rising in pitch
<b>Descending</b>	Falling in pitch

# Geography Knowledge Organiser – Ecosystems



## Tropical Rainforests

Tropical rainforests are found between the Tropics of  $30^{\circ}$  north and south of the equator. These dense forests grow in hot, wet conditions and a wide range of animals, such as monkeys, jaguars and parrots, live here.

## Deciduous forests

Temperate climates, which means that they are not too hot or too cold. Trees such as oak and elm that lose their leaves during cooler months grow here. Animals such as owls, red deer and badgers live in these forests.

## Plants and animals in the Tundra

Plants in the Tundra have many different adaptations. They grow close together, low to the ground and they remain small. Many plants have a wax type of fuzzy, hairy coating to shield them from the cold and the wind. They will have small leaves to retain moisture.

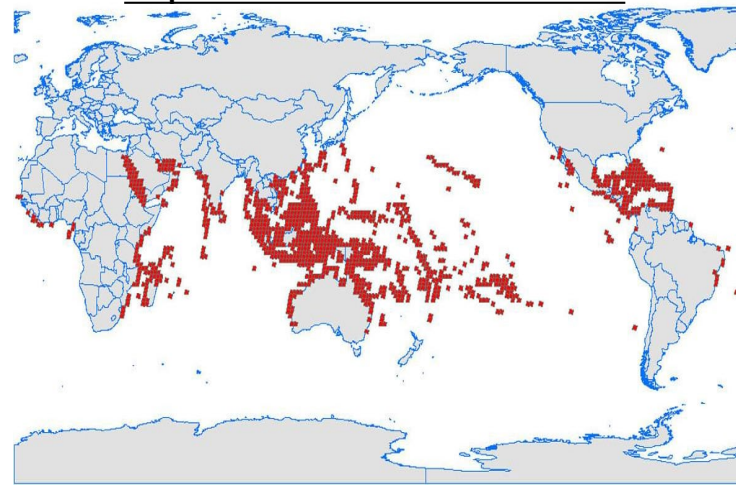
The animals here tend to have thicker and warmer feathers and fur. Many of them have larger bodies and shorter arms, legs and tails which helps them retain their heat better and prevent heat loss. Some of the animals of the Tundra (bears, marmot, arctic squirrels) will hibernate for the winter and others will burrow (lemmings, ermine).

## The Great Pacific Garbage Patch

The Great Pacific Garbage Patch is a zone in the Pacific Ocean between Hawaii and California where plastic waste has accumulated. The Great Pacific Garbage Patch is estimated to be bigger than the size of the State of Texas.

The Great Barrier Reef is the largest **coral** reef on Earth. A barrier reef is a long, narrow coral formation that lies parallel to the shoreline of a landmass and is mostly underwater. The Great Barrier Reef is in the Coral Sea, off the north-eastern coast of **Australia**. It extends 1,250 miles (2,000 kilometres) from north to south. There are at least 300 types of hard coral on the reef. Other animals include sponges, anemones, worms, snails, lobsters, crayfish, prawns, jellyfish, and plant life.

## Map of the distribution of Coral Reefs



12

## Tundra biomes

Tundra biomes are found in the Arctic and in the southern part of the polar biome, eg Russia, Greenland, Canada, Alaska and Scandinavia. Snow covers the ground for much of the year and restricts plant growth to small species such as grasses and low shrubs. Species such as reindeer are found in the tundra. Reindeer can see (UV) light, which helps them to see during the long, dark winters, when there is very little sunlight.



# Geography Knowledge Organiser – Tourism

## What is tourism?

Tourism is when people travel away from home for pleasure.

## Why has the tourism industry grown?

- advances in technology meaning that travel is now easier, quicker and more affordable
- the growth of the internet means it is easier than ever before to book holidays
- improvements in workers rights means that paid holidays for employees, makes it easier to take time off
- More disposable income due to changes such as smaller average family size and more families with two incomes, means some people have more money to spend on themselves

## Ecotourism

Ecotourism is a sustainable form of tourism. It tries not to damage the environment and respects local culture and customs.

Ecotourism or **green tourism** aims to give jobs to local people whilst protecting the environment. Ecotourists travel in small groups and often visit reserves where the scenery and wildlife is protected and managed.



Blackpool in North West England was a popular tourist destination in the 19th and 20th centuries but went through a decline.

Attractions include:

- the Pleasure Beach - a theme park which is the UK's most visited tourist attraction
- a sandy beach
- the Blackpool Illuminations - a spectacular light show during the autumn months to prolong the tourist season
- concerts and shows

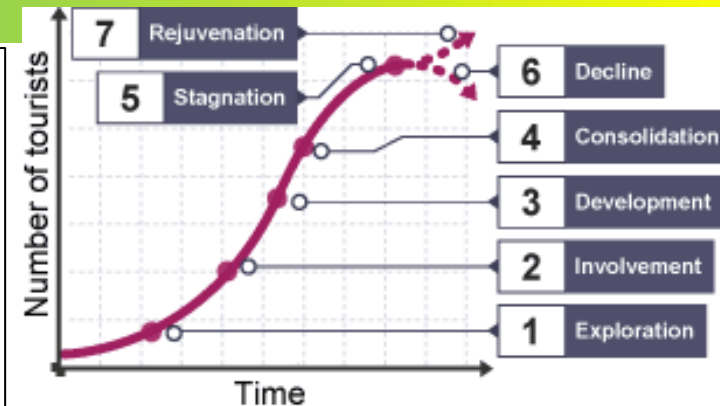
## Decline

- foreign travel to the Mediterranean growing in popularity in the 1960s and 1970s due to its more reliable hot weather and sandy beaches
- the expansion of package holidays and cheaper flights
- the growth of budget airlines and cheaper accommodation from the 1990s onwards
- overcrowding in Blackpool and a shift in the market to late night drinking, stag and hen parties

## Rejuvenation

In 2000, Blackpool launched a £300 million regeneration project. Recent projects to improve the town for visitors include:

- **Brilliance** - a town centre lighting scheme which aims to encourage visitors to explore the town centre further at night and during the day
- **tourist attractions** - The Big One, Sandcastle Waterpark and Winter Gardens are examples of attractions designed to regenerate Blackpool as a tourist destination
- **Houndshill Shopping Centre** - redeveloped to improve shopping in the town centre
- **the beach** - sea defences have been replaced with 'Spanish steps' leading down to the sea that will protect the coastline and increase public access to the seafront



## Conflicts of tourism

### Social

- Tourism can provide a source of conflict between tourists and locals.
- Culture and traditions can be lost with the influx of new people to an area.
- If a resort is popular it can result in overcrowding and traffic jams.

### Economic

- Jobs are often seasonal and poorly paid.
- Money is frequently lost due to repatriation as hotels are often owned by foreign firms.
- If a country becomes reliant on tourism, it can make it vulnerable if tourists stop visiting.
- Sometimes tourist numbers fall due to global pandemics, terrorist attacks or other factors.

### Environmental

- The natural environment can become damaged as tourists increase waste and pollution.
- New buildings may damage natural habitats and disrupt fragile ecosystems.

13

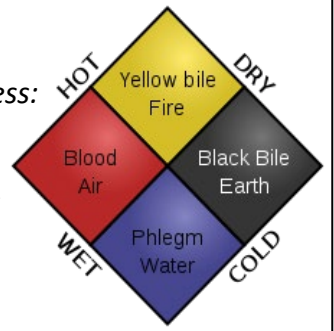
# History Knowledge Organiser



## Topic 5: Medieval Medicine

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

**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.



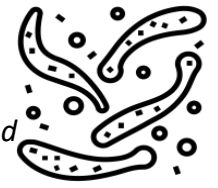
### What cures did people use for the Black Death?

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.



# History Knowledge Organiser



## Topic 6: The Tudors

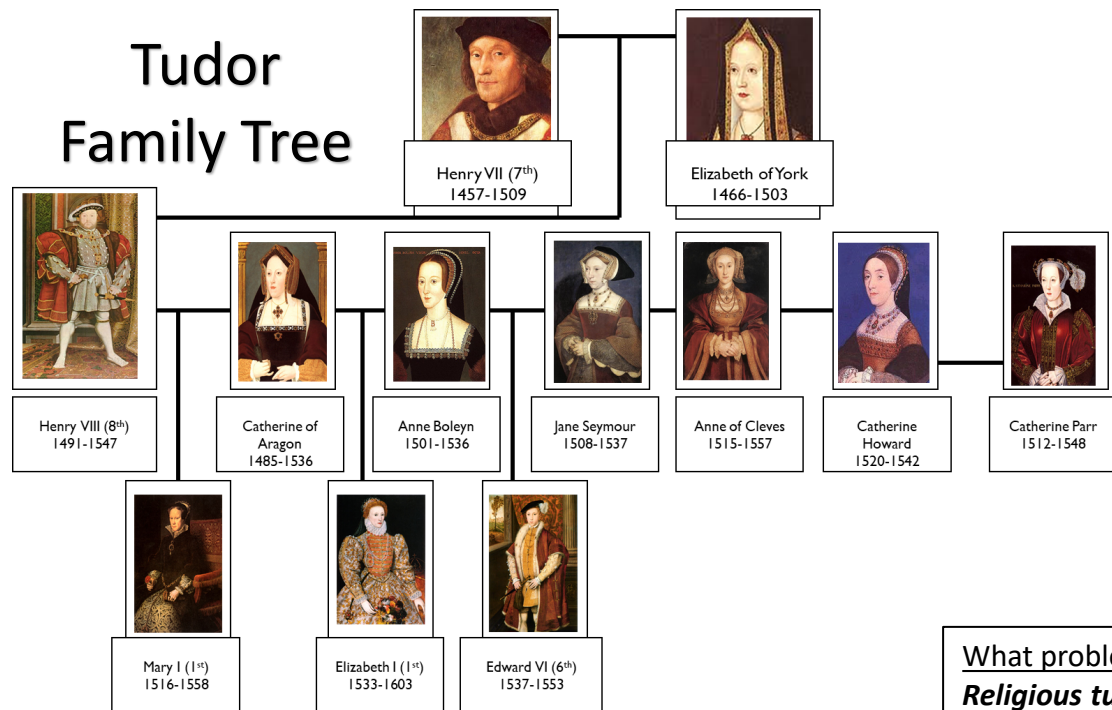
### Who was Henry VIII?

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



### 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.

# 16



# Religion and Ethics Knowledge Organiser



## Keywords

**Allah** – the Arabic term for God.

**Prophet** – A messenger of God.

**Muhammad** (pbuh) – the most important prophet in Islam, he received the Qur'an.

**Qur'an** – Holy Book of Islam.

**Hadith** – Sayings of the Prophet Muhammad (pbuh).

**Sunni** – A branch of Islam that follows the succession of Abu Bakr.

**Shia** – A branch of Islam that follows the succession of Ali.

**Shahadah** - declaration of Faith.

**Salah** - prayer.

**Zakat** - charity, giving 2.5% of wealth to charity.

**Sawm** – Fasting (not eating) for Ramadan.

**Hajj** – Islamic Pilgrimage.

**Ramadan** – Islamic month when Muslims fast.

## The Five Pillars of Islam

- 1) Shahadah – the declaration of faith says that: “There is no God, but Allah and Muhammad is His messenger.”
- 2) Salah – prayer, Muslims pray five times per day.
- 3) Zakat – charity, giving 2.5% of wealth to charity.
- 4) Sawm – fasting (not eating or drinking) during the months of Ramadan. Muslims do not eat or drink anything during daylight hours for a month.
- 5) Hajj – pilgrimage there is a pilgrimage (religious journey) to Makkah that every Muslim should complete at least once in their lifetime.

## YEAR 7 SUMMER 1 - What is Islam?



## Hajj

Hajj is the fifth pillar of Islam. It is a pilgrimage to Makkah in Saudi Arabia where the prophet Muhammad (pbuh) was born and where the Ka'aba (house of Allah) is. Makkah is the holiest site in Islam.

- Hajj takes six days
- Pilgrims who have completed Hajj are cleansed of their sins.
- After completing Hajj a Muslim can use the title Hajji.

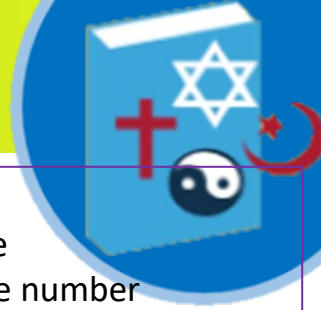


## Sawm

Sawm is the fourth pillar of Islam. It is fasting (not eating or drinking) during daylight hours for the month of Ramadan. Before sunrise Muslims will get up early to have a meal called **Suher** and after sunset, they have a meal called **Iftar**.



# Religion and Ethics Knowledge Organiser



## Keywords

**Humanism** – a non-religious system of belief that follows science, reason and empathy.

**Census** – an official count or survey usually conducted by the Government.

**Secular** – not being to do with religion.

**Atheist**- someone who does not believe in God

**Agnostic**- when you're not sure if God exists.

**Theist**- believer in God.

**Multi-faith** – having a variety of religions.

**Worldview** – a philosophy of life or way of seeing the world.

**Spirituality** – being concerned with spirit or soul as opposed to physical things.

**Abrahamic Religions** – Faiths that have Abraham (Ibrahim) as an important figure these are Judaism, Christianity and Islam.

**Dharmic Religions** – Faiths that follow dharma (teaching) typically these faiths come from India these are Hindu Dharma, Buddhism and Sikhi.

## Modern Britain

Every 10 years the government asks people lots of questions to find out about society this is called the **Census**. The last Census asked people what religion they are, the results were;

46% Christian

37% No religion

6.5% Muslim

1.7% Hindu

0.9% Sikh

0.5% Buddhist

0.5% Jewish

6% did not answer.

## Humanism

**Humanism** is a non-religious belief. Humanists believe that;

1. The **Scientific Method** offers the best way of explaining and understanding the world.
2. Ethical Decisions should be based on **Reason** and **Empathy**.
3. This life is the only one we get.

## Is Religion Dying?

Christianity used to be followed by the majority of people in Britain, today the number of Christians is less than 50% according to the last census.

The biggest increase between the last two censuses was in the number of people putting no religion, this increased from 25% to 37%.

Some people think this shows Britain is becoming more **secular**. Others argue it is because people are less likely to follow an organised religion but might still believe in God or be quite **spiritual**.

## YEAR 7 SUMMER 2 - What is a Worldview?

## Is Religion Dangerous?

Religion has been used to justify doing terrible things. In history you have learned about the medieval church and persecution of non-Christians today there are still groups who follow extreme versions of religion.

On the other hand Religion has inspired many people to do good things, many charities are founded by religious organisations and all religions have a version of the Golden Rule – 'Treat others as you wish to be treated'.

18



# Maths Knowledge Organiser

## 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

$$3.5\overset{2}{\underset{7}{\mid}}7 \rightarrow 3.5$$

b) 2 decimal places

$$3.5\overset{2}{\mid}7 \rightarrow 3.53$$

### 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

$3.4 \times 100$

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

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

19

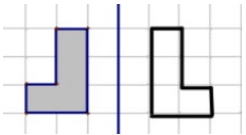
# Maths Knowledge Organiser

## TRANSFORMATIONS

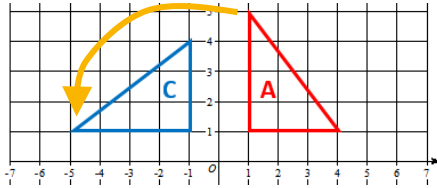


### Key Concept

#### 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.

### Tip

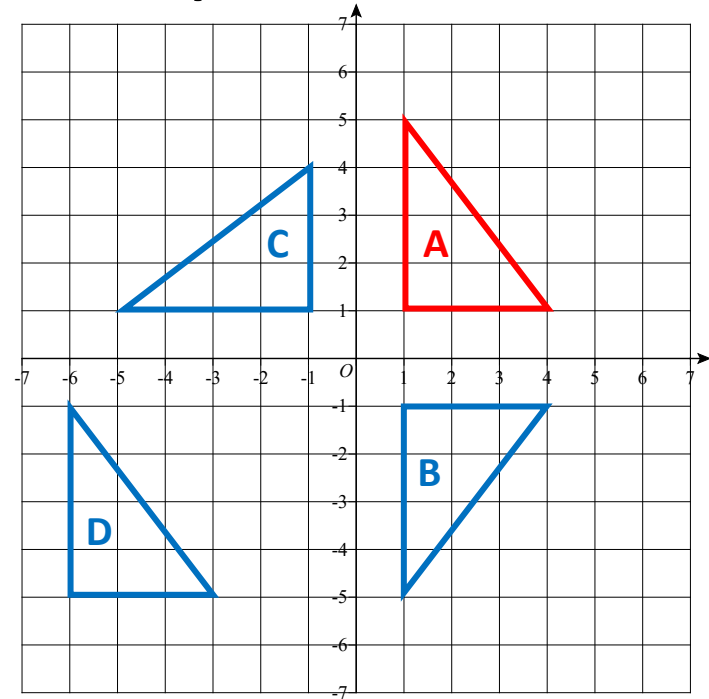
- Use **tracing paper** to avoid mistakes.
- When describing transformations, look at how many marks are available and see if you have put enough to get the marks.

### 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.



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  $\begin{pmatrix} -3 \\ -4 \end{pmatrix}$

20



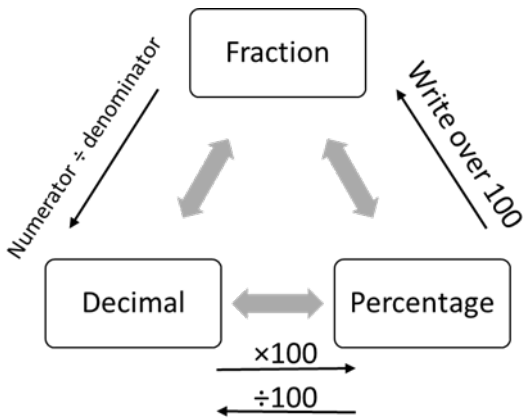


# Maths Knowledge Organiser



## FRACTIONS & PERCENTAGES OF AMOUNTS

### Key Concept



### 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

$$\frac{3}{4} \text{ of } 32 =$$

$$32 \div 4 \times 3$$

$$= 24$$

16% of 240

$$\left. \begin{array}{l} 10\% = 24 \\ 5\% = 12 \\ 1\% = 2.4 \end{array} \right\} = 24 + 12 + 2.4$$

$$= 38.4$$

#### Calculator

Find **32%** of 54.60 =

$$0.32 \times 54.60 = 17.472$$

Year 7

### 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

# 21

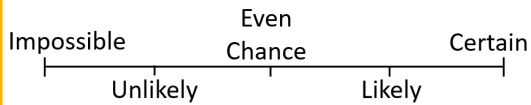
# Maths Knowledge Organiser

## INTRODUCTION TO PROBABILITY

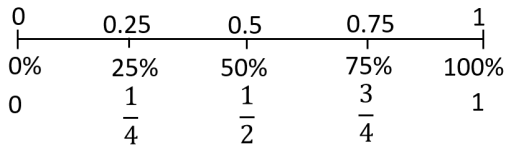


### Key Concept

#### Chance



#### Probability



Probabilities can be written as:

- Fractions
- Decimals
- Percentages

### Key Words

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

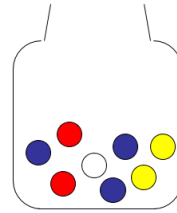
**Impossible:** The outcome cannot happen.

**Certain:** The outcome will definitely happen.

**Even chance:** There 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.

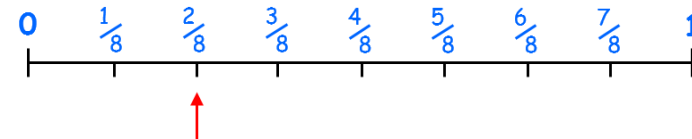
### Examples



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

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

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



- 2) How many **yellow** beads would you **expect** if you pulled a bead out and replaced it 40 times?

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

Year 7

### Tip

Probabilities always add up to 1.

### Formula

$$\text{Expectation} = \text{Probability} \times \text{no. of trials}$$

### 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)

22

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





# Maths Knowledge Organiser



## INTRODUCTION TO EQUATIONS

### Key Concept

#### Inverse Operations

Operation	Inverse
+	-
-	+
x	÷
÷	x
$x^2$	$\sqrt{x}$

### 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

### Examples

$x + 9 = 16$ $-9 \quad -9$ $x = 7$	$x - 12 = 20$ $+12 \quad +12$ $x = 32$	$\frac{x}{3} = 5$ $\times 3 \quad \times 3$ $x = 15$	$2x + 5 = 14$ $-5 \quad -5$ $2x = 9$ $\div 2 \quad \div 2$ $x = 4.5$
--	--	--	--

$\frac{x}{4} - 2 = 4$ $+2 \quad +2$ $\frac{x}{4} = 6$ $\times 4 \quad \times 4$ $x = 24$	$2(3x + 5) = -14$ <b>expand</b> $6x + 10 = -14$ $-10 \quad -10$ $6x = -24$ $\div 6 \quad \div 6$ $x = -4$	$2x + 7 = 5x + 1$ $-2x$ <b>(smallest x term)</b> $+7 = 3x + 1$ $-1 \quad -1$ $6 = 3x$ $\div 3 \quad \div 3$ $2 = x$
--	---	--

# Year 7

### Questions

- 1)  $x + 8 = 19$     2)  $y - 25 = 15$     3)  $2y = 8$     4)  $\frac{p}{4} = 7$   
 5)  $\frac{p}{2} - 6 = 2$     6)  $3(2x - 3) = 15$     7)  $4x - 8 = 2x + 1$

# 23



Son= they are  
 Hay - there is  
 Es - is  
 Tiene - has



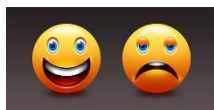
## Tenses

PRESENT	-ar verbs	-er verbs	-ir verbs
I	-o	-o	-o
you	-as	-es	-es
he/she/it	-a	-e	-e
we	-amos	-emos	-imos
you (pl)	-áis	-éis	-ís
they	-an	-en	-en

PRESENT	-tener – to have	Ser – to be	Llevar – to wear
I	Tengo	Soy	Llevo
you	Tienes	Eres	Llevas
he/she/it	Tiene	Es	Lleva
we	Tenemos	Somos	Llevamos
you (pl)	Tenéis	Sois	Lleváis
they	Tienen	Son	llevan

## Opinions & Pronouns

Me gusta (mucho)	No me gusta (nada)
Me encanta	Odio
me chifla	detesto
Me interesa	Me irrita
Me asignatura preferida es	Me molesta –annoys me



## Connectives

también	also
pero	but
sin embargo	however
que	which
donde	where
porque	because



## Complexity

Suelo estudiar – I tend to study  
 Quiero estudiar – I want to study  
 Tengo que estudiar... - I have to study  
 Me gustaría estudiar – I would love to have



malo – bad  
 divertido - fun  
 difícil – difficult  
 duro - hard  
 fácil - easy  
 relajante - relaxing  
 simpático – nice  
 estricto – strict  
 emocionante – exciting  
 práctico – practical  
 útil – useful  
 inútil – useless  
 creativo – creative  
 activo – active  
 práctico - practical

# 24

El español es divertido  
 La historia es divertida  
 Las ciencias SON divertidas  
 El español y la historia SON divertidos





# TOPIC VOCABULARY TRANSLATED KO. Yr7 mod 3-instituto

## Las asignaturas

la educación física  
El deporte  
el inglés  
el español  
el francés  
el alemán  
el teatro  
el dibujo/el arte  
la geografía  
la historia  
la informática  
las matemáticas  
las ciencias  
la música  
la religión  
la tecnología  
la física  
La química  
La biología

## School subjects

PE  
Sport  
English  
Spanish  
French  
German  
Drama  
Art  
Geography  
History  
ICT  
Maths  
sciences  
Music  
RE  
Technology  
Physics  
Chemistry  
Biology



1



## los profesores

## teachers

2

**Mi profesor de ...tecnología... es**  
– *my teacher of... DT...is*

Mi profesor(a) preferido(a) **se llama..**

Mi profesor(a) preferido(a) **es.. / no es**

**tiene el pelo....**largo / rubio / negro

**tiene los ojos....** azules / verdes / negros

me gusta porque es....  
– *I like him.her because he/she is...*

### INTENSIFIERS

**muy – very**  
**bastante – quite**  
**un poco – a bit**  
**\*realmente – really**  
**\*increíblemente - incredibl**

3

### Frequency phrases

a veces	sometimes
generalmente	usually
normalmente	usually
nunca	never
siempre	always

4

5

## La hora

**¿Qué hora es?**

**Es la una.**

**Son las cinco.**

**Son las cinco y diez**

Son las cinco **y cuarto** It's quarter past 5

Son las cinco **y veinte** It's 20 past 5

Son las cinco **y media.** It's half past 5.

Son las seis **menos cinco** It's 5 to 6.

Son las seis **menos cuarto** It's quarter to 6

Son las seis **menos veinte** . It's 20 to 6

Son las doce.

**Es mediodía**

**Es medianoche**

## Time

**What time is it?**

It's one o'clock.

It's five o'clock.

It's 10 past 5

It's quarter past 5

It's 20 past 5

It's half past 5.

It's 5 to 6.

It's quarter to 6

It's 20 to 6

It's twelve o'clock.

it's midday

it's midnight

# 25



Son= they are  
 Hay - there is  
 Es - is  
 Tiene - has

**A**



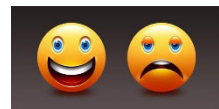
## Tenses

PRESENT	-ar verbs	-er verbs	-ir verbs
I	-o	-o	-o
you	-as	-es	-es
he/she/it	-a	-e	-e
we	-amos	-emos	-imos
you (pl)	-áis	-éis	-ís
they	-an	-en	-en

**B**

## Opinions & Pronouns

Me gusta (mucho)	No me gusta (nada)
Me encanta	Odio
me chifla	detesto
Me interesa	Me irrita
Me asignatura preferida es	Me molesta –annoys me



**D**

## Connectives

También	also
Pero	but
sin embargo	however
que	which
Donde	where
Porque	because

**E**

## Complexity

Suelo comer – I tend to eat  
 Quiero cenar– I want to eat for dinner  
 Tengo que beber... - I have to drink  
 Me gustaría merendar – I would love to snack (on)

**F**



delicioso (a)	delicious	<b>G</b>
asqueroso	disgusting	
soso	bland	
sano / saludable	healthy	
malsano	unhealthy	
rico	rich / delicious	
sabroso	tasty	
divertido / aburrido	fun / boring	
interesante	interesting	
útil	useful	
inútil	useless	
fácil	easy	
difícil	difficult	

### Key verbs

Desayunar – to have breakfast  
 Tomar – to have (food and drink)  
 Comer – to eat  
 Beber – to drink  
 Merendar – to snack  
 Cenar – to eat dinner/tea

**C**



### Meal times

el desayuno	breakfast
la comida	lunch/dinner
la merienda	afternoon snack
la cena	evening meal (tea)

El agua es **Sano**  
 La hamburguesa es **sabrosa**  
 Unos espaguetis **SON** delicios**OS**  
 Las patatas fritas **SON** ric**AS**  
 El café y la limonada **SON** ric**OS**

# 26

**H**





## La hora

## Time

¿Qué hora es?

What time is it?

Es la una.

It's one o'clock.

Son las cinco.

It's five o'clock.

Son las cinco y diez

It's 10 past 5

Son las cinco y cuarto It's quarter past 5

Son las cinco y veinte It's 20 past 5

Son las cinco y media. It's half past 5.

Son las seis **menos cinco** It's 5 to 6.

Son las seis **menos cuarto** It's quarter to 6

Son las seis **menos veinte** . It's 20 to 6

Son las doce. It's twelve o'clock.

**Es mediodía** it's midday

**Es medianoche** it's midnight



1

## Frequency phrases

a veces sometimes

generalmente usually

normalmente usually

nunca never

siempre always

a tiempo on time

pronto / tarde early / late

3

Distance Learning Timetable

	Monday	Tuesday	Wednesday	Thursday	Friday
Year 7	Maths and English	Maths	English	Spanish/ French/ PE	Art
Year 8	Science	Maths	IT / Design and Technology	Maths	English
Year 9	English	Science and Maths	Maths/ Science/ Design and Technology	English	Maths
Year 10	Maths	English	Maths	Spanish/ French/ PE	Art

2

## El horario

## The timetable

Empieza a ...

It begins at ...

Termina a ...

It finishes at ...

¿A qué hora empiezan/ terminan las clases? begin/end? What time do the lessons begin/end?

Las clases empiezan/ terminan a ... Lessons begin /end at...

Tenemos ... (a) después por la tarde We have ... (at) then/afterwards in the afternoon

¿Cuándo es la hora de comer? When is the lunchbreak?

La hora de comer es a la/las Lunchtime is at...

A la una

AT 1 o'clock

A las dos

AT 2 o'clock

# TOPIC VOCABULARY TRANSLATED

## KO. Yr7 mod 3 - vamos al instituto



¿A qué hora desayunas/ comes / meriendas/cenas?

What time do you have breakfast / lunch/an afternoon / dinner?

¿Qué comes/bebes/ tomas?

como.../bebo.../tomo..

What do you eat/ drink/have?

I eat.../I drink../I have..

## La comida y las bebidas Food and drinks

un agua mineral (m) mineral water

un bocadillo a sándwich

un café (con leche) a black (white)coffee

un té (con leche) a tea (with milk)

una Coca Cola a Coca Cola

un zumo de naranja an orange juice

una ensalada a salad

(la) fruta fruit

una hamburguesa a hamburger

una limonada lemonade

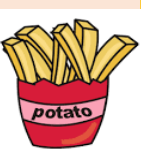
una naranjada an orangeade

unas patatas fritas chips

una pizza pizza

una tostada (a piece of) toast

unos espaguetis spaghetti



27

### Mi instituto

¿Dónde estudias?

Estudio en ...

un instituto femenino a girls' school

un instituto masculino

un instituto mixto

los alumnos

los chicos

los profesores

el recreo

la secretaria

el uniforme

### My school

Where do you study?

I study in ...

a boys' school

a mixed school

pupils

boys and girls

teachers

break

secretary

uniform

### ¿Qué tiene tu instituto?

Mi instituto tiene ...

un aula (f)

una biblioteca

una cafetería

un comedor

el despacho de la

directora

un gimnasio

un laboratorio

un laboratorio de

idiomas

un patio

unas pistas polideportivas

una sala de profesores

un salón de actos

unos servicios

### What does your school have?

My school has ...

a classroom

a library

a cafeteria

dining hall

the headmistress's

office

a gym

laboratory

a language

lab(oratory)

playground

sports' pitches

a staffroom

a hall

toilets

### ¿Cómo llegas al instituto? How do you get to school?

Llego al instituto ... I get to school

Llega ...

He/She/It arrives

en autobús by bus

en bici

by bike

en coche

by car

en metro

by underground

en moto

by motorbike

en tren

by train

Llego a pie.

I walk.

A qué hora llegas?

What time do you arrive?

Llego a la(s) ...

I arrive at ...

Llego/ Llegamos/ Llegan a casa a la(s) ...

I/We/They arrive home at ...

Llega a casa a la(s) ...

He/She gets home at

### Las asignaturas

la educación física

El deporte

el inglés

el español

el francés

el alemán

el teatro

el dibujo/el arte

la geografía

la historia

la informática

las matemáticas

las ciencias

la música

la religión

la tecnología

la física

La química

La biología

### School subjects

PE

Sport

English

Spanish

French

German

Drama

Art

Geography

History

ICT

Maths

sciences

Music

PE

Technology

Physics

Chemistry

Biology



# 28



## Donde vivo

Son= they are  
 Hay - there is  
 Es - is  
 Tiene - has



### Tenses

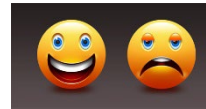
Key verb: vivir

PRESENT	-ar verbs	-er verbs	-ir verbs
I	-o	-o	-o
you	-as	-es	-es
he/she/it	-a	-e	-e
we	-amos	-emos	-imos
you (pl)	-áis	-éis	-ís
they	-an	-en	-en

<b>Vivir</b>	<i>To live</i>
<b>Vivo</b>	<i>I live</i>
<b>Vives</b>	<i>You live</i>
<b>Vive</b>	<i>He/she lives</i>
<b>Vivimos</b>	<i>We live</i>
<b>Vivís</b>	<i>You (pl) live</i>
<b>Viven</b>	<i>They live</i>

### Opinions & Pronouns

Me gusta (mucho)	No me gusta (nada)
Me encanta	Odio
me chifla	detesto
Me interesa	Me irrita
Mi habitación preferida es	Me molesta –annoys me



### Connectives

Además/ encima	further more
sin embargo / no obstante	however
que	which
Donde	where
Porque	because
Dado que	given that
Por eso / así que	so / therefore

### Adjectives

¿Cómo es tu casa?	What's your house like?
Mi casa/piso es ...	My house/flat is ...
muy	very
bastante	quite
a) acogedor(a)	cosy
b) adosado/a	semi-detached
c) antiguo/a	old
d) bonito/a	pretty
e) cómodo/a	comfortable
f) grande	big
g) moderno/a	modern
h) nuevo/a	new
i) pequeño/a	small
j) reformado	renovated

### FUTURE Saying what you are going to do

Voy	123	a	INFINITIVE
vas			Ir
va			Tocar
vamos			jugar
vais			nadar
van			leer
			Ver



### Complexity

Puede ser– it can be  
 Quiero vivir– I want to live  
 Tengo que vivir... - I have to live  
 Me gustaría vivir en – I would like to live in

LE gusta = he/she likes ( It pleases him/her)  
 NOS gusta - we like ( it pleases us)

El piso es antiguó  
 La casa es antiguaA  
 Los pueblos SON bonitOS  
 Las afueras SON bonitAS

# 29



Mi casa es **más pequeña que** la casa de mi amigo  
 . (comparative) (no apostrophe rule)



# TOPIC VOCABULARY TRANSLATED

A

## ¿Dónde vives?

Vivo en ...

¿Dónde vive(n) ...?

Vive en ...

- a. una casa
- b. un chalet
- c. una granja
- d. un piso
- e. un bloque antiguo
- f. un bloque moderno

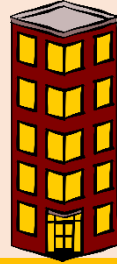
## Where do you live?

I live in ...

Where does (do) ... live?

He/She/It lives in ...

- a house
- a detached house/villa
- a farm
- a flat
- an old block of flats
- a new block of flats



B

## ¿Dónde está?

Está ...

- a. en las afueras
- b. en el/un barrio
- c. en el campo
- d. en el centro
- e. en la/una ciudad
- f. en la costa
- g. en la montaña
- h. en el/un pueblo
- i. el este
- j. el norte
- k. el oeste
- l. el sur

## Where is it?

It's ...

- on the outskirts
- in the/a neighbourhood
- in the country
- in the (town) centre
- in the/a city
- on the coast
- in the mountains
- in the/a town, village
- east
- north
- west
- south



C

- a. abajo
- b. arriba
- c. el ascensor
- d. el ático
- e. la planta baja
- f. la primera/segunda/
- g. tercera/cuarta/quinta
- h. planta
- i. el primer piso
- j. el sótano



- downstairs
- upstairs
- the lift
- the attic
- the ground floor
- the first/second/
- third/fourth/
- fifth floor
- the first floor
- the basement

E

## Dónde?

- a la derecha (de)
- a la izquierda (de)
- al lado de
- debajo (de)
- delante (de)
- detrás (de)
- encima (de)
- enfrente (de)
- entre

## Where?

- to the right (of)
- to the left (of)
- next to
- below
- in front (of)
- behind
- on (top) (of)
- opposite
- between

# KO. Yr7 mod 4

## Dónde vives

D

## habitaciones.

Hay ...

- a. el aseo
- b. el (cuarto de) baño
- c. la cocina
- d. el comedor
- e. el despacho
- f. el dormitorio
- ¿ g. la ducha
- h. la escalera
- i. el garaje
- j. el jardín
- k. el pasillo
- l. la piscina
- m. el salón

There is/are ...

- toilet
- bathroom
- kitchen
- dining room
- office
- bedroom
- shower
- stairs
- garage
- garden
- corridor
- swimming pool
- the living room

30



## 7E Mixtures and Separation

### 1. Mixtures

<b>Mixture</b>	Two or more substances jumbled together but not joined together.
<b>Suspension</b>	A mixture of a solid and liquid, where the solid bits are heavy enough to settle out if the mixture is left to stand.
<b>Colloid</b>	A mixture of a solid, liquid or gas in a solid, liquid or gas where the substances do not settle out if left to stand.
<b>Dispersed</b>	Spread out without settling out, such as the bits in a colloid.
<b>Opaque</b>	Cannot be seen through- colloids are opaque / cloudy.
<b>Solution</b>	When a substance has dissolved in a liquid.
<b>Transparent</b>	Light can pass through and it can be seen through- solutions are transparent.
<b>Filter</b>	Something through which a liquid is passed to remove suspended pieces of solid.

### 2. Solutions

<b>Solvent</b>	The liquid in which a substance dissolves to make a solution.
<b>Solute</b>	The substance that has dissolved in a liquid to make a solution.
<b>Dissolve</b>	When a substance breaks up into such tiny pieces in a liquid that it can no longer be seen and forms a solution.
<b>Soluble</b>	Describes a substance that can dissolve in a liquid.

### Conservation of Mass

The total mass of a solution is the same as the mass of the dissolved substance plus the mass of the liquid at the start.

### Saturated

A solution that contains so much dissolved solute that no more solute can dissolve in it.

### Solubility

The amount of a substance that dissolves in a particular solvent at a particular temperature to make a saturated solution.

### 3. Evaporation

### Evaporation

When a liquid changes into a gas. Can be used to separate a liquid from the solid dissolved in it.

### Sodium Chloride

The scientific name for table salt that we use on our food.

### Rock Salt

When sodium chloride is found in thick layers of rock underground.

### Extracting Rock Salt

Can be dug up or mined. Water can be pumped into layers of salt underground, dissolving the sodium chloride which is then pumped to the surface and heated to evaporate the water, leaving behind sodium chloride.

### Boiling

When there is liquid turning into a gas in all parts of a liquid- creates bubbles of gas in the liquid.

### Boiling Point

The temperature at which a liquid boils.

### 4. Chromatography

### Chromatography

Used to separate substances dissolved in a mixture.

### Paper Chromatography

A concentrated dot of a mixture is placed at the bottom of special chromatography paper. The bottom of the paper is dipped into a solvent (such as water). As the solvent moves up the paper it carries the dissolved substances.

### Concentrated

A solution that contains a large amount of solute dissolved in a small amount of solvent.

### Chromatogram

The results of chromatography such as a dried piece of paper for paper chromatography showing when the dissolved solids have been separated.

### How chromatography works

Different substances in a mixture are carried at different speeds, depending on how soluble they are, which separates them out from each other.

### 5. Distillation

### Desalination

Separating water from the salts in salty/sea water to produce fresh drinking water.

### Distillation

The process of separating a liquid from a mixture by evaporating the liquid and then condensing it to be collected.

### Steam

Water as a gas.

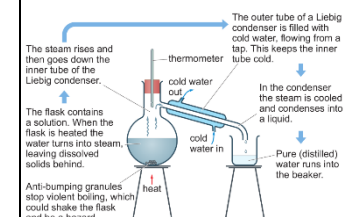
### Condenses

When a substance changes from its gas state into its liquid state.

### Pure

A single substance that does not have anything else in it. (Pure water only contains water and no dissolved solutes)

### Distillation Apparatus



### Solar Still

Energy from the Sun is used to evaporate salty/dirty water which is then condensed, forming pure/clean water.

*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.*

## 7E Mixtures and Separation

### 1. Mixtures – complete gaps

<b>M</b> .....	Two or more substances jumbled together but not joined together.
<b>S</b> .....	A mixture of a solid and liquid, where the solid bits are heavy enough to settle out if the mixture is left to stand.
<b>C</b> .....	A mixture of a solid, liquid or gas in a solid, liquid or gas where the substances do not settle out if left to stand.
<b>Dispersed</b>	Spread out without settling out, such as the bits in a colloid.
<b>O</b> .....	Cannot be seen through- colloids are opaque / cloudy.
<b>S</b> .....	When a substance has dissolved in a liquid.
<b>T</b> .....	Light can pass through and it can be seen through- solutions are transparent.
<b>F</b> .....	Something through which a liquid is passed to remove suspended pieces of solid.

### 2. Solutions – complete the definitions

<b>Solvent</b>	
<b>Solute</b>	The substance that has dissolved in a liquid to make a solution.
<b>Dissolve</b>	
<b>Soluble</b>	Describes a substance that can dissolve in a liquid.

<b>Conservation of Mass</b>	The total mass of a solution is the same as the mass of the dissolved substance plus the mass of the liquid at the start.
<b>Saturated</b>	
<b>Solubility</b>	The amount of a substance that dissolves in a particular solvent at a particular temperature to make a saturated solution.

### 3. Evaporation – fill in the gaps

<b>E</b> .....	When a liquid changes into a gas. Can be used to separate a liquid from the solid dissolved in it.
<b>S</b> .....	The scientific name for table salt that we use on our food.
<b>C</b> .....	
<b>Rock S</b> .....	When sodium chloride is found in thick layers of rock underground.
<b>Extracting Rock Salt</b>	Can be dug up or mined. Water can be pumped into layers of salt underground, dissolving the sodium chloride which is then pumped to the surface and heated to evaporate the water, leaving behind sodium chloride.
<b>B</b> .....	When there is liquid turning into a gas in all parts of a liquid- creates bubbles of gas in the liquid.
<b>B</b> ..... <b>P</b> .....	The temperature at which a liquid boils.

### 4. Chromatography

<b>C</b> .....	Used to separate substances dissolved in a mixture.
<b>Paper Chromatography</b>	A concentrated dot of a mixture is placed at the bottom of special chromatography paper. The bottom of the paper is dipped into a solvent (such as water). As the solvent moves up the paper it carries the dissolved substances.
<b>Concentrated</b>	
<b>Chromatogram</b>	The results of chromatography such as a dried piece of paper for paper chromatography showing when the dissolved solids have been separated.
<b>How chromatography works</b>	

### 5. Distillation – complete the gaps

<b>D</b> .....	Separating water from the salts in salty/sea water to produce fresh drinking water.
<b>D</b> .....	The process of separating a liquid from a mixture by evaporating the liquid and then condensing it to be collected.
<b>Steam</b>	Water as a gas.

<b>Condenses</b>	When a substance changes from its gas state into its liquid state.
<b>P</b> .....	A single substance that does not have anything else in it. (Pure water only contains water and no dissolved solutes)
<b>Distillation Apparatus</b>	Draw a diagram and label
<b>Solar Still</b>	Energy from the Sun is used to evaporate salty/dirty water which is then condensed, forming pure/clean water.

*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.*

# 32



## 7F Acids and Alkalis

### 1. Hazards

<b>Hazard</b>	Something that could cause harm.
<b>Risk</b>	The chance that a hazard will cause harm.
<b>Hazard Symbols</b>	Internationally agreed symbols representing the type of risk from using a substance.
	<b>Dangerous to Environment</b> Can cause long term damage to animal and plant life.
	<b>Toxic</b> Poisonous and can cause death if taken into the body.
	<b>Corrosive</b> Attacks certain substances like metals, stonework & skin.
	<b>Explosive</b> Heating may cause an explosion.
	<b>Flammable</b> These substances catch fire easily.
	<b>Caution</b> similar to toxic/corrosive but less serious- may cause skin irritation
<b>Diluted</b>	Dangerous substances are mixed with water to make them less dangerous.

### 2. Indicators

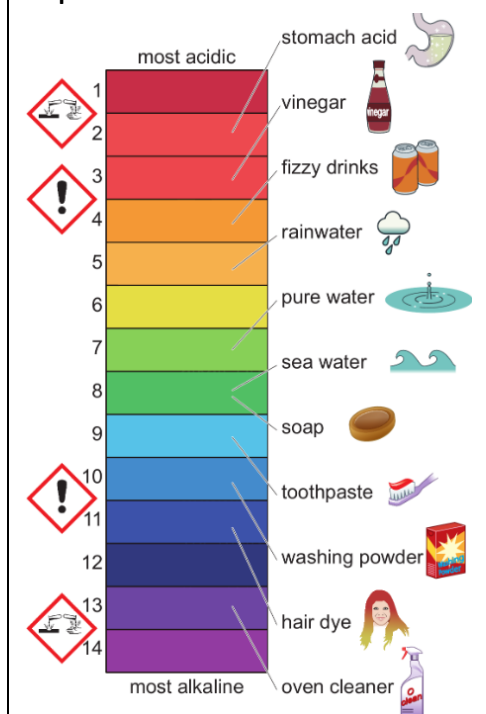
<b>Indicator</b>	A substance that changes colour in solutions of different acidity/alkalinity.
<b>Litmus</b>	An indicator made from a type of lichen.
<b>Acid</b>	Turns litmus indicator <b>red</b> .
<b>Alkali</b>	Turns litmus indicator <b>blue</b> .

<b>Neutral</b>	A substance that is neither acidic or alkaline.
<b>Red Cabbage</b>	Can be used as an indicator.

### 3. Acidity and Alkalinity

<b>pH Scale</b>	A scale measuring acidity and alkalinity in numbers.
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#### The pH Scale



<b>Acid</b>	pH lower than 7- the lower the number the more acidic.
<b>Neutral</b>	pH of 7
<b>Alkali</b>	pH higher than 7- the higher the number the more alkaline.
<b>Universal Indicator</b>	Indicator that gives a range of colours depending on the pH.
<b>Acid Rain</b>	Rainwater more acidic than usual due to pollution.

### 4. Neutralisation

<b>Neutralisation</b>	A reaction where an acid and alkali are mixed together forming a neutral substance.
<b>Chemical Reaction</b>	A change in which one or more new substance is formed.
<b>Word Equation</b>	Used to model chemical reactions.
<b>Reactants</b>	The starting substances- written on left of word equation.
<b>Products</b>	The new substances made- written on right of word equation.

#### Neutralisation General Word Equation

Acid + alkali → salt + water

#### Neutralisation Word Equation Example

Hydrochloric acid + sodium hydroxide → sodium chloride + water

<b>Salts</b>	Formed when acids and alkalis react. Different acids and alkalis will form different salts.
<b>Sodium Chloride</b>	The chemical name for common/table salt.

### 5. Neutralisation in Daily Life


<b>Base</b>	Any substance that neutralises an acid forming a salt and water.
<b>Alkali</b>	A soluble base
<b>Antacids</b>	Remedy for indigestion that neutralise the stomach acid
<b>Antacid Word Equation Example</b>	Magnesium hydroxide + hydrochloric acid → magnesium chloride + water
<b>Toothpaste</b>	Contains bases that neutralise acids in your mouth from food that you eat.

<b>Bee Sting Remedy</b>	A bee sting, being acidic can be treated with a weak alkali like baking soda.
<b>Wasp Sting Remedy</b>	A wasp sting, being alkali, can be treated with a weak acid like vinegar.
<b>Cleaning Metals</b>	Acids clean the rust off metals using a neutralisation reaction.
<b>Waste Gases</b>	Acidic waste gases from industries are sprayed with calcium hydroxide to neutralise them.

*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.*

## 7F Acids and Alkalis

### 1. Hazards Fill in the gaps

<b>H</b> .....	Something that could cause harm.
<b>R</b> .....	The chance that a hazard will cause harm.
<b>Hazard S</b> .....	Internationally agreed symbols representing the type of risk from using a substance.
	<b>Dangerous to E</b> ..... Can cause long term damage to animal and plant life.
	<b>T</b> ..... Poisonous and can cause death if taken into the body.
	<b>C</b> ..... Attacks certain substances like metals, stonework & skin.
	<b>E</b> ..... Heating may cause an explosion.
	<b>F</b> ..... These substances catch fire easily.
	<b>C</b> ..... similar to toxic/corrosive but less serious- may cause skin irritation
<b>D</b> .....	Dangerous substances are mixed with water to make them less dangerous.

### 2. Indicators – complete the gaps

<b>I</b> .....	A substance that changes colour in solutions of different acidity/alkalinity.
<b>L</b> .....	An indicator made from a type of lichen.
<b>Acid</b>	
<b>Alkali</b>	

<b>N</b> .....	A substance that is neither acidic or alkaline.
<b>Red C</b> .....	Can be used as an indicator.

### 3. Acidity and Alkalinity

<b>pH S</b> .....	A scale measuring acidity and alkalinity in numbers.
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#### The pH Scale – Draw and label

<b>A</b> .....	pH lower than 7- the lower the number the more acidic.
<b>Neutral</b>	
<b>A</b> .....	pH higher than 7- the higher the number the more alkaline.
<b>Universal I</b> .....	Indicator that gives a range of colours depending on the pH.
<b>Acid R</b> .....	Rainwater more acidic than usual due to pollution.

### 4. Neutralisation

<b>N</b> .....	A reaction where an acid and alkali are mixed together forming a neutral substance.
<b>Chemical Reaction</b>	
<b>Word Equation</b>	Used to model chemical reactions.
<b>Reactants</b>	
<b>Products</b>	

#### Neutralisation General Word Equation

Acid + alkali → salt + water

#### Neutralisation Word Equation Example

Hydrochloric acid + sodium hydroxide → sodium chloride + water

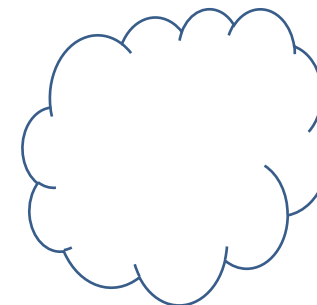
<b>S</b> .....	Formed when acids and alkalis react. Different acids and alkalis will form different salts.
<b>Sodium C</b> .....	The chemical name for common/table salt.

### 5. Neutralisation in Daily Life

<b>Base</b>	Any substance that neutralises an acid forming a salt and water.
<b>Alkali</b>	A soluble base
<b>Antacids</b>	Remedy for indigestion that neutralise the stomach acid
<b>Antacid Word Equation Example</b>	Magnesium hydroxide + hydrochloric acid → magnesium chloride + water
<b>Toothpaste</b>	Contains bases that neutralise acids in your mouth from food that you eat.





<b>Bee Sting Remedy</b>	A bee sting, being acidic can be treated with a weak alkali like baking soda.
<b>Wasp Sting Remedy</b>	A wasp sting, being alkali, can be treated with a weak acid like vinegar.
<b>Cleaning Metals</b>	Acids clean the rust off metals using a neutralisation reaction.
<b>Waste Gases</b>	Acidic waste gases from industries are sprayed with calcium hydroxide to neutralise them.

Create a mind map summarising the points on neutralisation in daily life.



## 7J Current Electricity

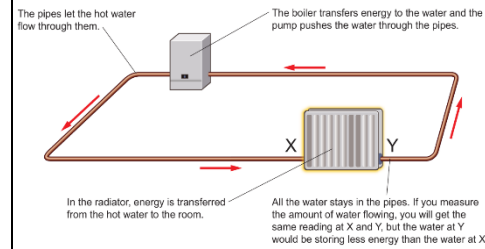
### 1. Switches and Current

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

### 2. Models for Circuits

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

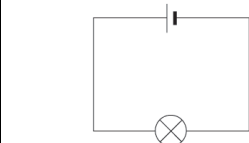
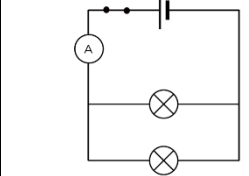
### Model Example



### Model Example Explanation

- Boiler represents the cell
- Pipes represent the wires
- The radiator represents a component
- Water represents the current

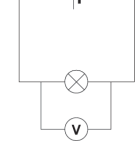



### 3. Series and Parallel Circuits

<b>Series Circuit</b>	A circuit with all the components in one loop.
<b>Series Circuit Diagram</b>	
<b>Parallel Circuit</b>	A circuit with branches that split apart and join again.
<b>Parallel Circuit Diagram</b>	
<b>Parallel Circuit Advantages</b>	Each bulb/component can be turned on individually. If one bulb/component breaks the components in other branches stay on (unlike a series circuit).
<b>Current in a Parallel Circuit</b>	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

<b>Voltage</b>	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).
<b>Voltmeter</b>	Used to measure voltage. Voltmeters are connected across a component.
<b>Connecting a Voltmeter</b>	
<b>Voltage in a Series Circuit</b>	The voltage across all the components adds up the voltage across the cell.
<b>Resistance</b>	How difficult it is for electricity to flow through something.
<b>Resistor</b>	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

<b>Hazard</b>	Something that could cause harm.
<b>Risk</b>	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.

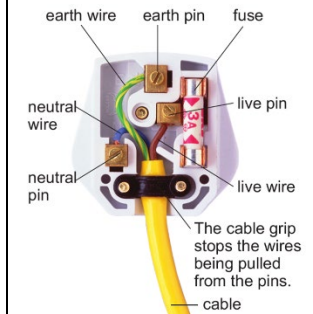
### Circuit Breaker

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



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

# 35



# 7L Sound

## 1. Making Sounds

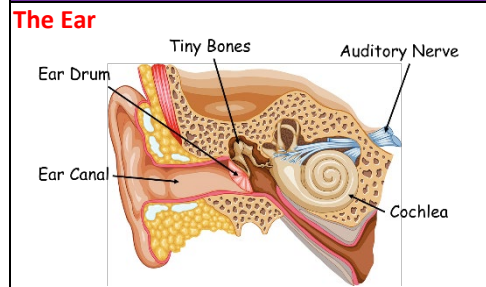
<b>Making Sounds</b>	Sounds are made by something vibrating.
<b>Intensity</b>	How loud or soft a sound is- its volume.
<b>Pitch</b>	How high or low a sound is.
<b>Frequency</b>	The number of vibrations each second. The higher the frequency the higher the pitch.
<b>Hertz (Hz)</b>	The units for measuring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

## 2. Moving Sounds

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

<b>Pressure Wave</b>	The air particles are pushed together in some place (high pressure) and spread out in other places
<b>Sound Wave Frequency</b>	The number of waves passing a point per second.
<b>Sound Wave Amplitude</b>	The distance moved by air particles as the sound wave passes.
<b>Energy</b>	Energy is transferred from one place to another by sound waves. They do not transfer particles.
<b>Speed of Sound</b>	Sound travels faster in solids because the particles are close together.
<b>Moving Away from A Source</b>	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



<b>Ear Protection</b>	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.
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<b>How Ears Detect Sounds</b>	<ol style="list-style-type: none"> <li>1. sound waves enter the ear canal.</li> <li>2. the eardrum (a thin membrane) vibrates.</li> <li>3. vibrations pass to the tiny bones which amplify the vibrations.</li> <li>4. vibrations pass to the liquid inside the cochlea.</li> <li>5. tiny hairs inside the cochlea detect vibrations and create electrical signals (impulses).</li> <li>6. impulses travel along the auditory nerve to the brain.</li> </ol>
<b>How Microphones Detect Sounds</b>	Sounds make a thin sheet of materials (a diaphragm) vibrate and electrical circuits convert these vibrations into electrical currents.
<b>Decibels (dB)</b>	The units for measuring the loudness of a sound.
<b>Auditory Range</b>	The range of frequencies an organism can hear 20Hz – 20000Hz in humans
<b>Infrasound</b>	Sounds below 20Hz
<b>Ultrasound</b>	Sounds above 20000Hz

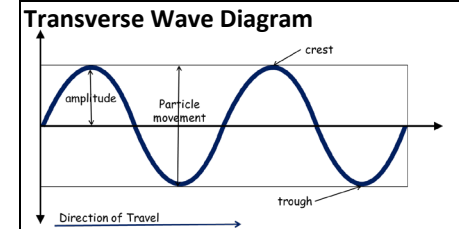
## 4. Using Sound

<b>Using Sound</b>	Sound is often used for communication.
<b>Transmitted</b>	Energy from sound waves goes through some materials.
<b>Reflected</b>	Energy from sound waves bounces off some materials.
<b>Using High Frequency Waves</b>	<ul style="list-style-type: none"> <li>• Treat injuries</li> <li>• Clean delicate objects by making tiny bubbles that loosen dirt when the burst.</li> </ul>
<b>Echo</b>	A reflected sound

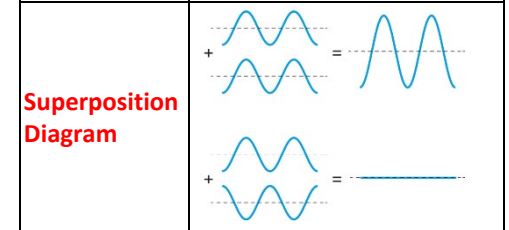
<b>Echolocation</b>	Used by animals (bats, dolphins, etc.) to find their way around/find prey.
<b>Sonar</b>	Pulse of ultrasound is given off and reflected by the sea bed. It is then detected by sonar equipment to find the depth.

## 5. Comparing Waves

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



<b>Superposition</b>	As waves pass through each other their effects add up or cancel out.
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Work through memorising the information – highlight each definition once you know it. When you have completed your highlighting can you do the gap fill and activities on the second sheet to support your retrieval practice.

## 8A Food and Nutrition

### 1. Nutrients

<b>Diet</b>	The food that you eat- provides the raw materials your body needs for energy.
<b>Nutrients</b>	Food substances that provide the raw materials- carbohydrates, fats, proteins, vitamins, minerals
<b>Carbohydrates</b>	Starch and sugars
<b>Fats</b>	Liquid fats are oils. Fats and oils are called lipids.
<b>Fibre</b>	Made of plant cell walls- not used by the body. Helps food move through the intestines and stops them getting blocked.
<b>Uses of Water</b>	<ul style="list-style-type: none"> <li>•a lubricant</li> <li>•dissolves substances to be carried around body</li> <li>•fills up cells, holding shape</li> <li>•sweat to cool you down</li> </ul>
<b>Food Labels</b>	Show the amounts of different nutrients in food.
<b>Starch Food Test</b>	Add 2 drops of iodine. If it turns <b>blue-black</b> starch is present.
<b>Protein Food Test</b>	Add 5 drops of biuret solution. If it turns <b>purple</b> protein is present.
<b>Fat Food Test</b>	Rub on some white paper and hold up to the light. fats will leave a greasy mark

### 2. Uses of Nutrients

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

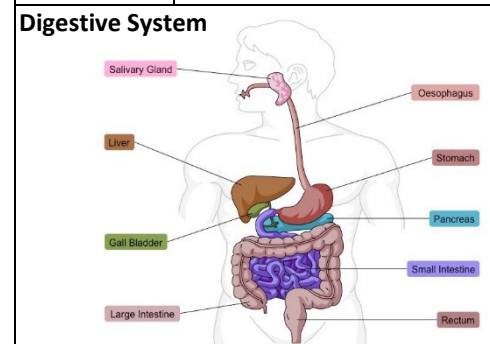
### 3. Balanced Diets

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

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

### 4. Digestion

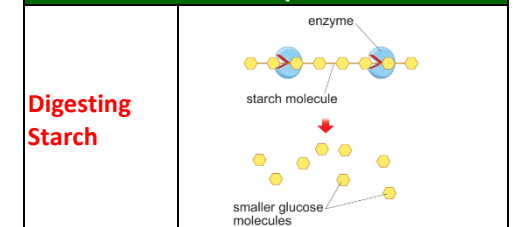
<b>Digestion</b>	Turning large insoluble molecules into small soluble ones.
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<b>Mouth</b>	Teeth grind food and saliva helps digest food.
<b>Gullet</b>	(oesophagus / food pipe) Muscles contract pushing the food down.
<b>Stomach</b>	Food churned with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

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

### 5. Absorption



<b>Blood</b>	Digested nutrients dissolve in the blood plasma and are carried around the body to cells.
<b>Diffusion</b>	Movement of particles from an area of high concentration to low concentration.
<b>Small Intestine Adaptations.</b>	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.
<b>Alcohol</b>	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.

37

## 8B Plants and their Reproduction

### 1. Classification and Biodiversity

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

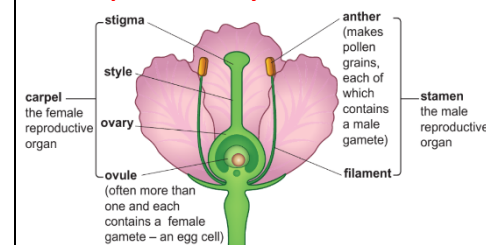
### 2. Types of Reproduction

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

<b>Gametes</b>	Sex cells
<b>Zygote</b>	The fertilised egg cell formed when the male and female gamete join.
<b>Asexual Reproduction</b>	Reproduction involving only one parent- produces offspring identical to the parent (clones).
<b>Runners</b>	An example of asexual reproduction used by strawberry plants. They spread over the ground and sprout roots to grow new identical plants.
<b>Tubers</b>	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.
<b>Using Asexual Reproduction</b>	Gardeners take cuttings of leaves/stems to grow new plants quickly and cheaply.

### 3. Pollination

#### Plant Reproductive System



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

<b>Plant Adaptations for Animal Pollination</b>	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.
<b>Plant Adaptations for Wind Pollination</b>	Pollen is smooth and light to float through air. large anthers and stigmas hang outside the flower to catch the wind.
<b>Self-Pollination</b>	Pollen grains from a plant land on the stigma of the same plant.
<b>Cross-Pollination</b>	Pollen transferred from one plant to another.

### 4. Fertilisation and Dispersal

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

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

### 5. Germination and Growth

<b>Resources</b>	What a plant needs to grow/germinate.
<b>Respiration</b>	The process of releasing energy from glucose.
<b>Respiration Word Equation</b> glucose + oxygen → carbon dioxide + water	
<b>Dormant</b>	Slow life processes but still alive- such as in a seed.
<b>Photosynthesis</b>	A process that plants use to make their own food.
<b>Photosynthesis Word Equation</b> carbon dioxide + water → glucose + oxygen	
<b>Starch</b>	Glucose is converted to starch to store it.
<b>Chloroplasts</b>	Traps light energy needed for photosynthesis.
<b>Interdependent</b>	Organisms that depend on one another.

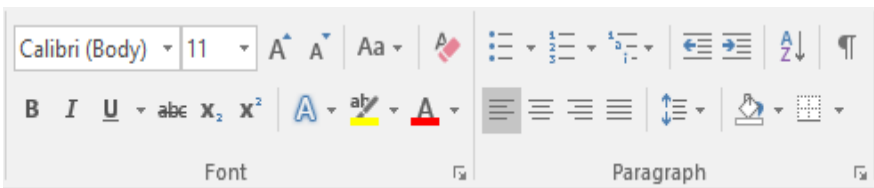
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38



# Computer Science Knowledge Organiser

## Year 7 Using media



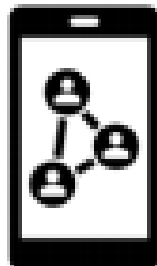
**Formatting** can be using tools like **bold**, *italic*, underline, changing colour, font style and size, alignment and many more.

**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.

A **blog** is 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.



### Is it real? Is it true?



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.

### It is the law



**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.

### Keywords

Format

Source

Licensing

Audience

Plagiarism

Copyright

Citation

Blog

Credibility

Referencing

Appropriate

39



# Computer Science Knowledge Organiser

## YEAR 7 MODELLING DATA

## SPREADSHEETS

**Spreadsheets** are used to model data.  
That means that they can be used to perform calculations on data and make predicts.

**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.

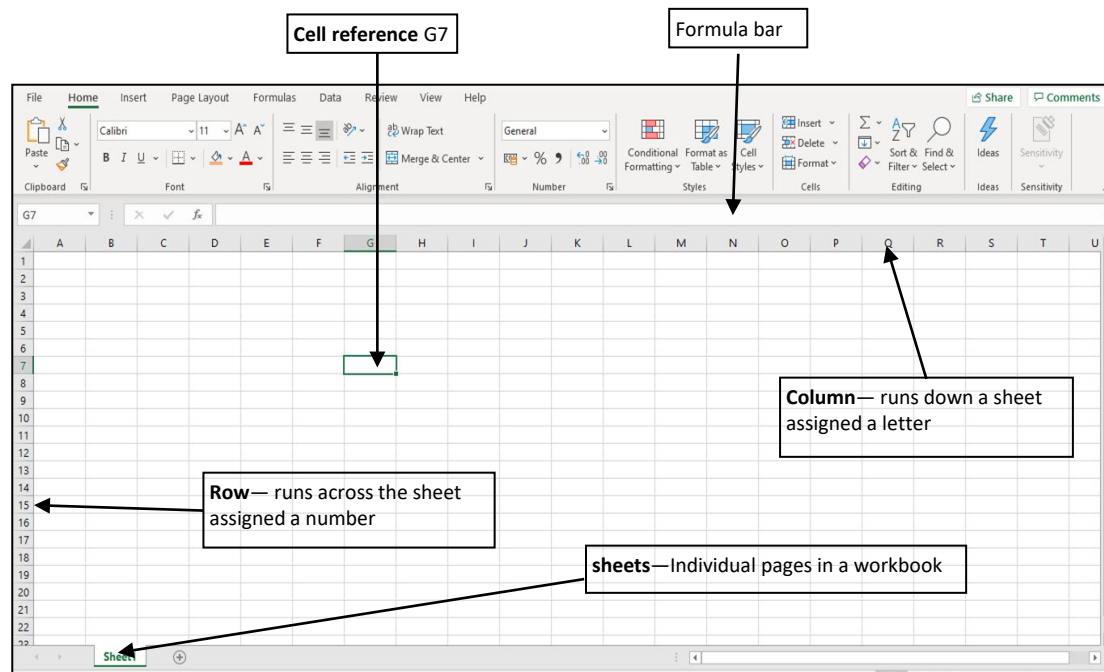
Common **functions** are

- 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.  
**You can fill data automatically by using AutoFill**



# 40

# Computer Science Knowledge Organiser



## Year 7 Networks

Key Words	
Bandwidth	Amount of data that can be moved from one point to another in a given time.
Buffering	Data arriving slower than 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

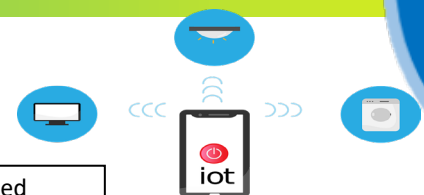
A computer network can be either wired or wireless.

- 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

**Server**—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.

41



# Computer Science Knowledge Organiser



## PROGRAMMING 1 - SCRATCH

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

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.

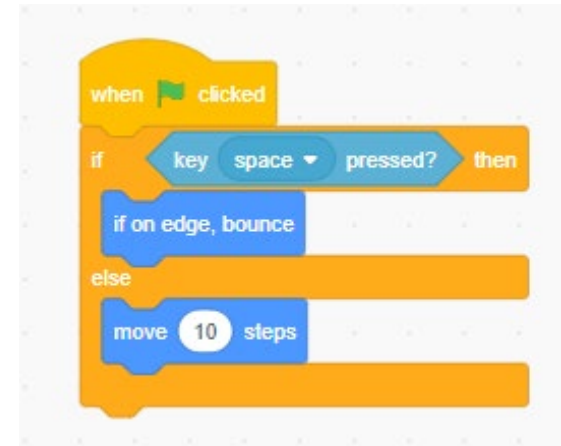
**Sequence, selection and iteration** are all processes. In order for computers to perform tasks there is more that is needed. For example a computer will take an **input** (this might be automatic or via human input) which the computer will then **process** and the **output** will be visible on the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

### 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.

**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



**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"

# 42

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.

# SCRATCH



# Computer Science Knowledge Organiser

## DIGITAL SKILLS

### IMPACT OF TECHNOLOGY

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

**PASSWORDS**  
are like underpants



#### 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

**43**  
Where to get help

Talk to a trusted adult  
<https://www.ceop.police.uk/>  
<https://www.childline.org.uk/>




## Design Specification – Key Questions

<b>A</b>	<b>Aesthetics</b>	What shape should the product be? What colour should be product be? What texture should the surface have?
<b>C</b>	<b>Cost</b>	What should the cost of the product be?
<b>C</b>	<b>Consumer</b>	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?
<b>E</b>	<b>Environment</b>	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?
<b>S</b>	<b>Safety</b>	What safety risks have to be considered? What safety standards must the product meet?
<b>S</b>	<b>Size</b>	How long, wide and tall should the product be? How much should the product weigh?
<b>F</b>	<b>Function</b>	What will the product be used for? How will it work? How should it be tested?
<b>M</b>	<b>Materials and Manufacturing</b>	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

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

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

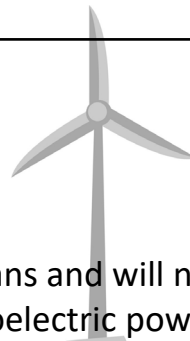
# 44





## Design Process

<b>Primary Research</b>	Data gathered first hand directly from the client
<b>Secondary Research</b>	Data about the client that comes from a second hand source
<b>Product Analysis</b>	Looking at a product in detail to understand more about it using ACCESS FM
<b>Design Brief</b>	A summary of the design opportunity
<b>Design Specification</b>	A document that lists all the design criteria that the finished product must meet.
<b>Design Development</b>	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.
<b>Testing</b>	To check that the product meets the design specification and the needs of the user.
<b>Evaluation</b>	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


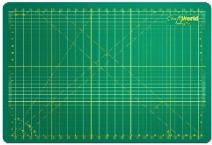


## How can we reduce our impact on the environment?

- 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	<ul style="list-style-type: none"> <li>Use</li> <li>Safety point</li> </ul>
	Craft Knife	<ul style="list-style-type: none"> <li>To cut paper, card and boards</li> <li><b>Safety Rules when using it</b></li> <li>Lock must be on</li> <li>Point downwards</li> <li>Use a cutting mat and safety ruler</li> </ul>
	Cutting Mat	<ul style="list-style-type: none"> <li>Placed under the material</li> <li><b>Safety</b></li> <li>It stops the knife from slipping</li> </ul>
	Metal Safety Ruler	<ul style="list-style-type: none"> <li>Used when cutting the material with a craft knife.</li> <li><b>Safety</b></li> <li>Fingers stay in the indent so protected from the blade</li> </ul>
	Glue Gun	<ul style="list-style-type: none"> <li>Used to join card and boards together</li> <li><b>Safety</b></li> <li>The glue and nozzle is hot</li> <li>Be careful not to use too much glue</li> </ul>



### 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.



# 46





## 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,



## 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 wood.



## Hardwoods

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

## Softwoods

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

## Manufactured Boards

Type	Properties	Uses
<b>Medium Density Fibreboard</b>	Made from fine particles of timber, mixed with glue and compressed together. Smooth, even surface, easily machined	Low cost furniture 
<b>Chipboard</b>	Made from coarse chips of timber, mixed with glue and compressed together. Rough surface with uneven texture	Kitchen worktops (covered with melamine for aldehyde)
<b>Plywood</b> 	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

# 47



# Food Technology Knowledge Organiser

## Hygiene and Safety



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

**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



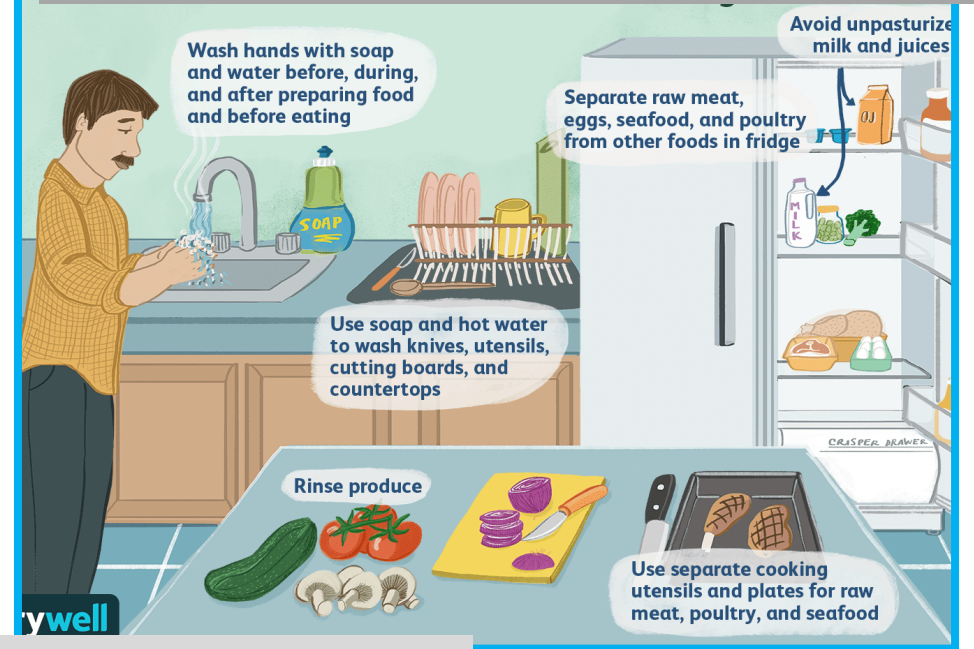
#### Chilling

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



#### Cross Contamination

- Store raw foods away from cooked foods
- Use separate equipment (chopping boards and utensils)
- Wash hands after handling raw meat and before preparing food



### Preventing cross contamination



# Food Technology Knowledge Organiser

## Knife Skills



**Julienne**

3mm\*3mm\*3~5cm



**Rondelle**



**Medium Dice**

1.25\*1.25\*1.25cm



**Small Dice**

6\*6\*6mm



### Key abbreviations: Weights and Measurements

L	Litres	
g	Grams	
ml	millilitres	1000ml=1 litre
Kg	kilograms	1000g
Tbsp	tablespoons	15ml
Tsp	teaspoon	5ml
1pt	1 pint	568ml



Claw grip



Bridge hold



## Food Spoilage

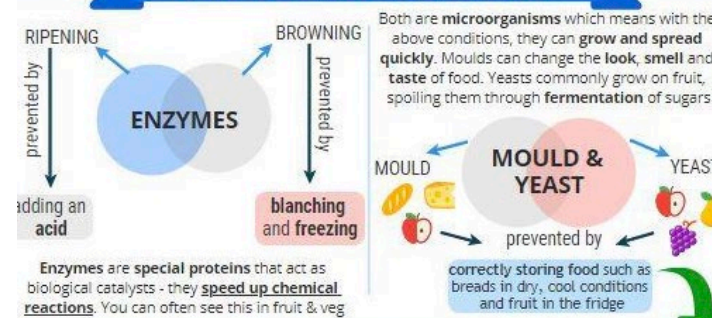
### OVERVIEW

Five conditions needed for microorganisms to multiply:

1. Warmth
2. Moisture
3. Food
4. pH (not too acidic or alkaline)
5. Time



### CAN CAUSE FOOD SPOILAGE:



### Storing and Preparing Food Safely

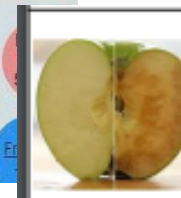


Alkali

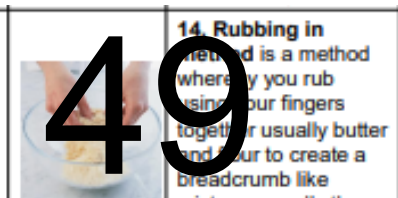
Alkali+Acid

Acid

Chemical raising agents produce CO<sub>2</sub>.  
Alkali+ Acid+ liquid+ CO<sub>2</sub>  
Makes baked products like scone rise, light and soft



**7. Enzymic browning:** the process where fruit and vegetables turn brown due to them being exposed to oxygen (oxidisation).

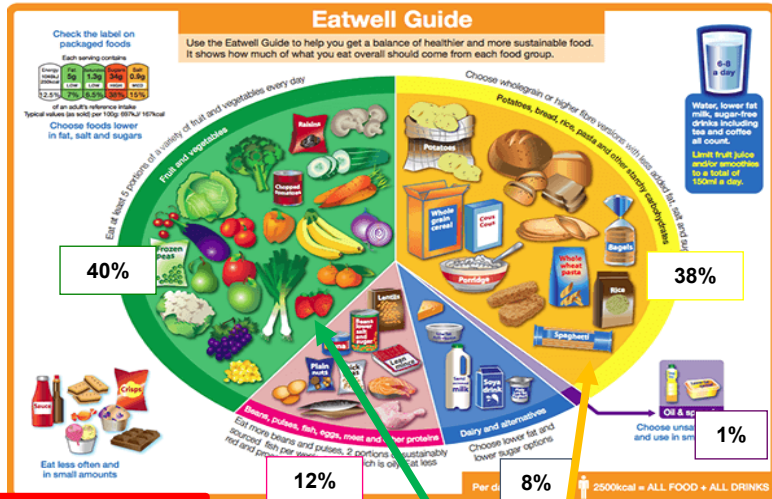


**14. Rubbing in** is a method whereby you rub together your fingers and flour to create a breadcrumb like mixture, usually the base for scones.

49



# Food Technology Knowledge Organiser



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.



Nutrient	How	Why
Cutting Fat	<ul style="list-style-type: none"> <li>*Eat more chicken and fish and less red meat</li> <li>*Use skimmed or semi-skimmed milk instead of full fat milk</li> <li>*Grill food instead of frying</li> <li>*Cut fat off meat before cooking</li> </ul>	<ul style="list-style-type: none"> <li>*Overweight</li> <li>*Obesity</li> <li>*Increase in Cholesterol in the blood</li> <li>*Heart attack.</li> <li>*Type 2 diabetes</li> </ul>
Cutting down on Sugar	<ul style="list-style-type: none"> <li>*Avoid fizzy drinks and high calorie drinks. Have fruit juice or water instead.</li> <li>*Eat fewer cakes, biscuits and sweets</li> <li>*Eat more fruit as an alternative</li> <li>*Try the natural sweetness of fresh fruit in puddings instead of sugar</li> </ul>	<ul style="list-style-type: none"> <li>*Overweight</li> <li>*Obesity</li> <li>*</li> <li>*Heart attack.</li> <li>*Type 2 diabetes</li> </ul>
Have more Fibre	<ul style="list-style-type: none"> <li>•Eat lots of fresh fruit and vegetables</li> <li>•Eat more wholemeal flour, bread, pasta, rice</li> <li>•Use more canned beans, peas and lentils - eat more</li> <li>•Try jacket potatoes with a variety of fillings</li> </ul>	<ul style="list-style-type: none"> <li>*Helps to protect against diseases of the bowel.</li> <li>*Gives you a feeling of fullness and so can help in diets.</li> </ul>
Eat less salt	<ul style="list-style-type: none"> <li>•Use herbs and spices as an alternative to salt</li> </ul>	<ul style="list-style-type: none"> <li>* Too much salt can lead to high blood pressure. This will increase the risk of suffering heart problems and strokes.</li> </ul>

50





## Food miles and the environment



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



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	<p>Chocolate – ingredients coming from all over the world has a lot of food miles.</p>
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.	<p>Food supply chain</p> <p>Agricultural Sector → Primary processing → Secondary processing → Distribution sector → Retail sector</p>
Local	a place close to where you live. Fruit and vegetables that were grown near you would be considered local.	<p>51 Strawberries grown in Manchester/UK</p>

# Satchel:one log in guide



satchel:  
one

How to Log into satchel:one

1. At the Log in Screen, Click 'Sign in with Office 365'

Login [Forgot password?](#)

Staff Parent Student

Sale High School

Enter email address or username

Enter password

Log in

Or log in with:

Sign in with Office 365

Sign in with Google

Sign in with RM Unity

2. Type in your school email address.

Sign in to your account - Profile 1 - Microsoft Edge

https://login.microsoftonline.com/common/oauth2/authorize?re...

Microsoft

Sign in

No account? [Create one!](#)

Can't access your account?

Next

Sign-in options

Terms of use Privacy & cookies

Your School Email Address is made up from the year you started Highschool,

Year Started	School Year
23	7
22	8
21	9
20	10
19	11

Follow this with your first initial second name, and the school domain address (@salehighschool.org.uk)

52

e.g: 21BDrake@salehighschool.org.uk

# Satchel:one log in guide



satchel:  
one

3. Enter your password.  
This is a six digit number.  
(Your teachers can give you)



← 21BDrake@salehighschool.org.uk

Enter password

Password

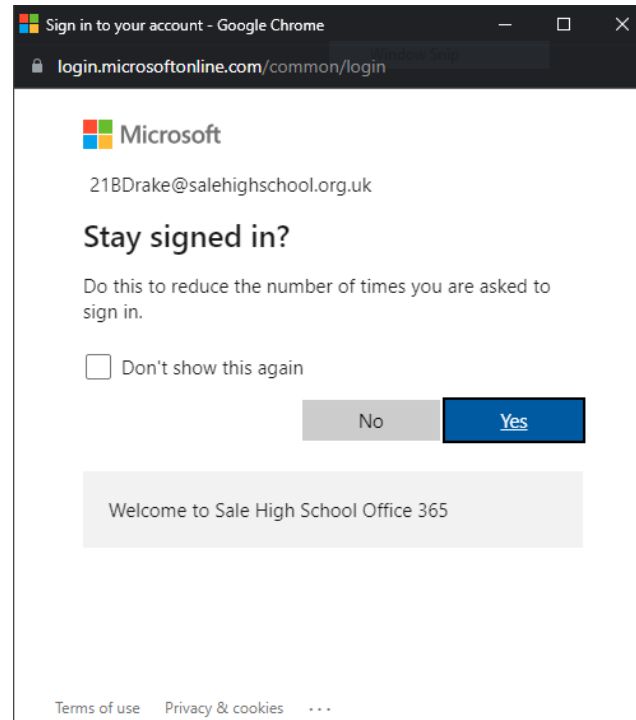
[Forgot my password](#)

Sign in

Welcome to Sale High School Office 365

4. Finally, Office 365 asks about signing in.

Yes can be pressed if your log in is from your phone or own computer.



Logging into Satchel:one in this way is the same on all devices:  
PC, Laptop, Tablet, iPad, and Phone.



PLEASE BE PATIENT!

If you are on a mobile device (phone or tablet) Satchel often 'snaps' back to the original log in screen.

Wait for a few seconds and the system will change to your logged in account.

53