Thomas Estley Community College
Year 7 Spring Term
Knowledge Organiser

What are Knowledge Organisers?

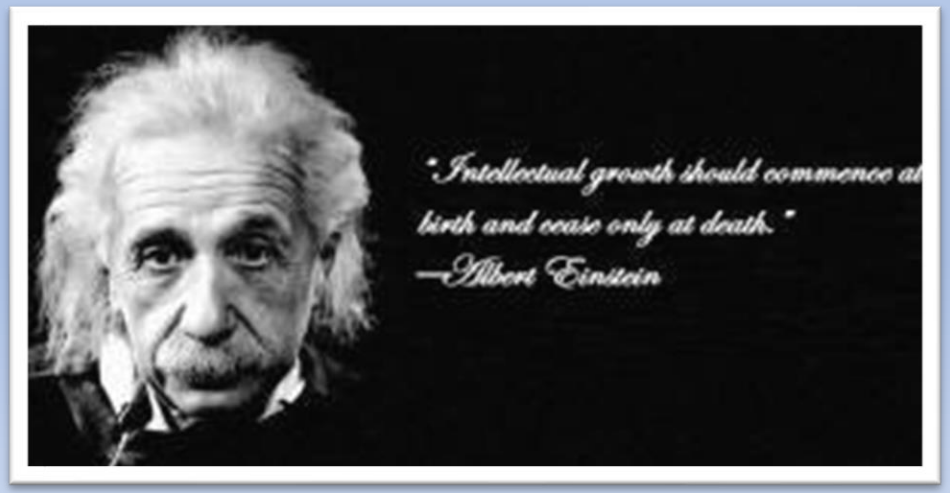
A knowledge organiser is an easy way that each subject can summarise the most important information. Each subject section will include key terms, short explanations, glossary words, diagrams etc making it clear to the student as to what is essential to learn. Each grid has an overall theme and these vary according to the subject being taught.

It will be the students responsibility to keep the knowledge organisers safe and refer to them over the whole academic year.

How will these be used at Thomas Estley?

At Key stage 3, you will be given a knowledge organiser each term. You need to keep these safe in your learning packs that you were provided with at the start of the academic year.

Your subject teachers will use these in a variety of ways, for both class work, remote learning opportunities and homework. They will be used to help with revision for class quizzes and retrieval practice activities. They will also be used for flip learning activities, where subject teachers will ask you to learn some information and then go in to it in more detail in class.



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Revision Tips and Tricks!

Record It

Record yourself on your phone or tablet reading out the information. These can be listened to as many times as you want!

Teach it!

Teach someone your key facts and the get them to test you, or even test them!

Flash Cards

Write the key word or date on one side and the explanation on the other. Test your memory by asking someone to quiz you on either side.

Back to front

Write down the answers and then write out what the questions the teacher may ask to get those answers.

Hide and Seek

Read through your knowledge organiser, put it down and try and write out as much as you can remember. Then keep adding to it until its full!

Sketch it

Draw pictures to represent each of the facts or dates. It could be a simple drawing or something that reminds you of the answer.

Post its

Using a pack of post-it notes, write out as many of the keywords or dates as you can remember in only 1 minute!

Practice!

Some find they remember by simply writing the facts over and over again.

Read Aloud

Simply speak the facts and dates out loud as you're reading the Knowledge Organiser. Even try to act out some of the facts – it really helps you remember!

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.

Spreadsheets use data which is held in cells.

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°

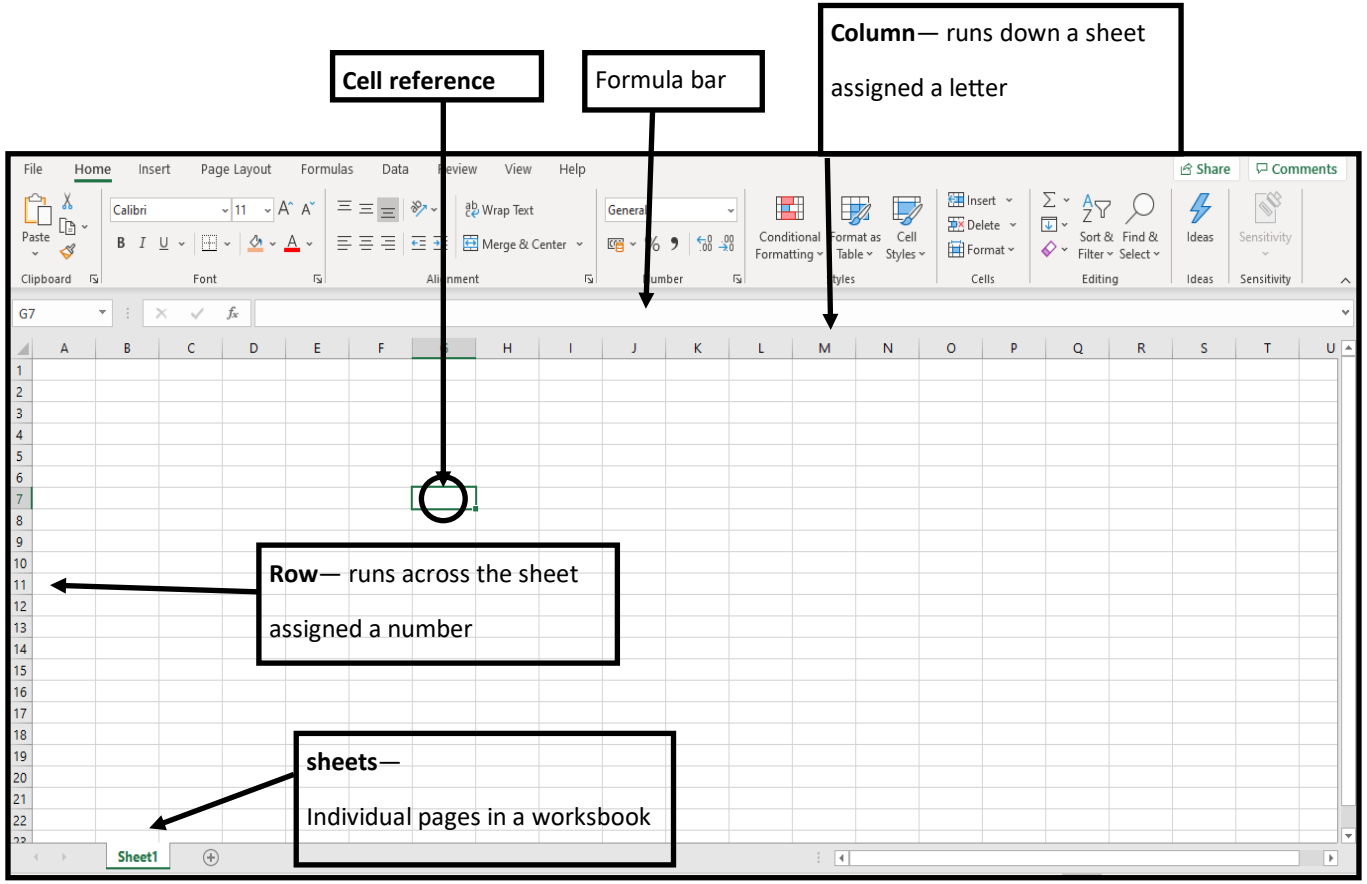
Data can be gathered from different sources

- **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.

Example G7



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

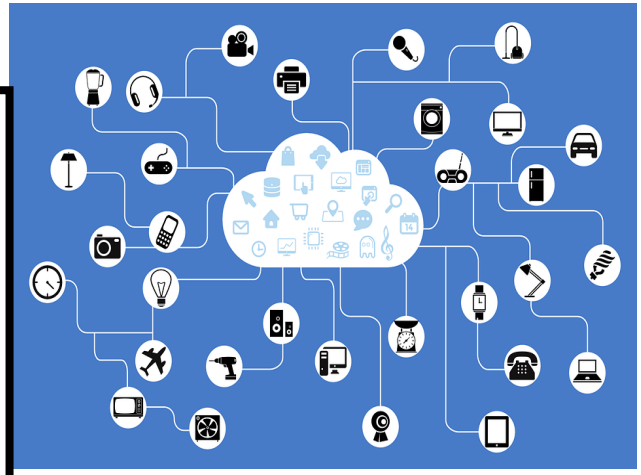
The tool bar at the top allows for **formatting** of the data. Changing colour, size, style etc

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 first 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

Year 7 Networks

A **network** is where devices are connected together usually by cable or WiFi. 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.

Key Words

bandwidth	Amount of data that can be moved from one point to another in a given time.
buffering	Data arriving slower that it is being processed
internet	A worldwide network of computers
Internet of Things (IoT)	Takes everyday 'things' and connects them to the Internet eg 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.

Network Hardware—physical equipment required to set up a network

Hub—Connects a number of computers together. Ports allow cables to be plugged in from each connected computer.

Router—Used to connect two separate networks together across the internet

Sever—A powerful computer which provides services to a network

Cable—Used to connect different devices together. They are often made up of a number of wires.

Year 7 Spring Term

Topic 2: Medieval West Africa: Why were the Kingdoms of West so great

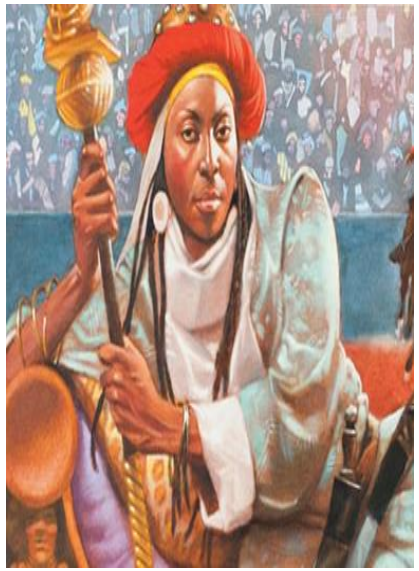
KEY TERMS

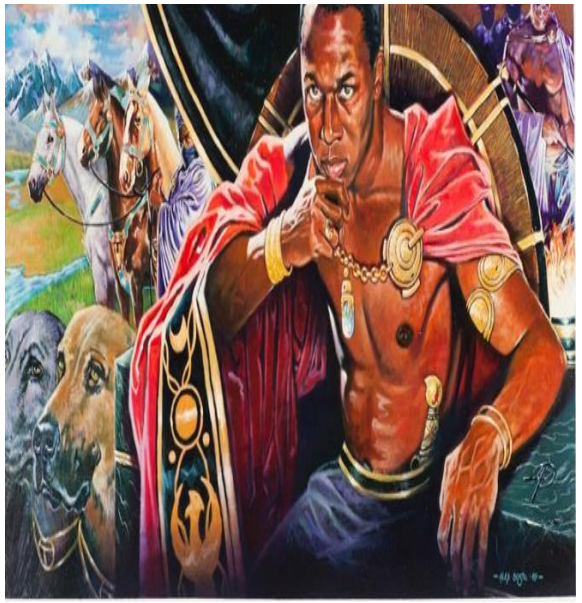
Interpretation - having a particular view

Empire -land ruled by another country

Independence -when a country leaves an empire and rules itself

Stereotypes – misjudging people on their appearance
Reliability -whether a historical source is trustworthy
Usefulness -whether a historical source is useful to find out information
Evidence – something that is used to support an argument





Mali

- The most significant of the Mali kings was Mansa Musa (1312-1337).
- Mansa Musa was a devout Muslim who built magnificent mosques all throughout the Mali sphere of influence.
- It was under Mansa Musa that Timbuktu became one of the major cultural centres not only of Africa but of the entire world.
- Al Umari described his visit to Egypt; "When Mansa Musa reached Cairo he spread his generosity throughout the city. There was no person, no court officer, no official of the sultan who did not receive a sum of gold from him."

Benin Empire

- The kingdom of Benin began in the 900s when the Edo people settled in the rainforests of West Africa. By the 1400s they had created a wealthy kingdom with a powerful ruler, known as the **Oba.** The Obas lived in beautiful palaces decorated with shining brass.
- Gradually, the Obas won more land and built up an empire. They also started trading with merchants from Europe.
- For 200 years Benin was very successful, but in the 1600s the Obas started to lose control of their people. By the 1800s Benin was no longer strong or united. The kingdom came to a sudden end in 1897, when a British army invaded and made it part of the British Empire.

Nigeria

Amina was a Hausa warrior queen of the city-state Zazzau, in what is now in the north-west region of Nigeria. At one time, Amina controlled the trade routes that connected the western Sudan with Egypt on the east and Mail and the north.
For the rest of her 34 year reign, she continued to fight and expand her kingdom to the greatest in history.

Ghana

- King Tenkamenim ruled Ghana at the same time as William the Conqueror was the King of England.
- Ghana was a rich country with lots of resources and minerals such as gold and iron. This made Ghana a powerful country as it supplied much of the world with iron to make weapons.

Al-Bakri was a geographer and historian, his most important work is his 'Book of Highways and of Kingdoms' written in 1068.
He said;

- "The King of Ghana can put two hundred thousand warriors in the field".
- "The King adorns (dresses**)** himself like a woman wearing necklaces round his neck and bracelets on his forearms".

Year 7 Spring term

Why was the Islamic world so successful?

Islam spread quickly?
- God wanted it
- Muslim teachers spread ideas to Africa and Asia.
- War and conquering land.

What was Baghdad like?
- Fertile land
- River access to provide trade
- Good water supply.

The Round City
Made 900-1200AD
Built as two giant semicircles with mosque in the middle.
Housed caliph palace, government and military.

What were Baghdad markets like?
Food: dates, lemons and apricots
Household: silk, cotton, dyes and carpets.
Essential others: Tigers, cheetahs, medicine, games.

Baghdad trade:
Russia and Scandinavia
Sahara Desert and central Africa
Italy, Spain
Persian Gulf
China
India
Indonesia
Philippines

Heath:
Pain: Poppy seed, hemp juice or fennel and peppermint tea to help.
Surgery: Hospital cleaned daily, Doctors expertly trained, equipped with tools.
Infection: cleaned wounds with alcohol, vinegar, willow juice or rose water.

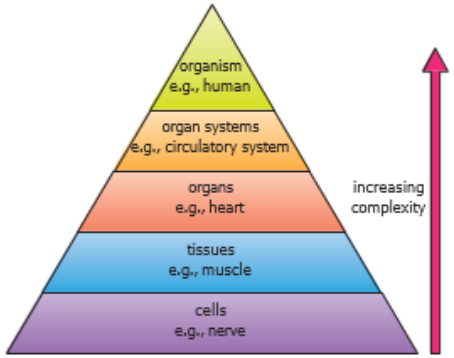
Jerusalem important?
- Holy land
- Jesus Christ born and resurrected.
- 3rd holiest place in Islam.

Why went on crusades?
- Seljurk Turks invaded Jerusalem
- They destroyed the Holy Land
- Muslims owned too much land

Richard	Saladin
Clever	Kind
Successful	Merciful
Brave	Brave
Great Warrior with skills	Persistent

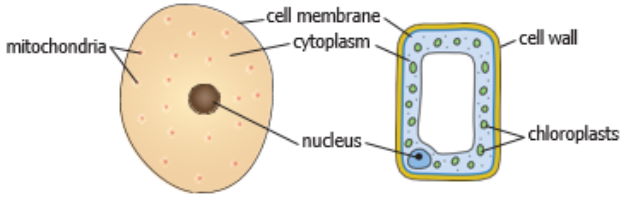
The children's crusade
- Began 1212
- Young children believed God had given Christians the Holy Land and they wanted to capture Jerusalem back.
- Leader was Stephen of Cloyes, 12 years old.

Levels of organisation



Plant and animal cells

- To be able to **observe** a **cell** we need to use a **microscope**, this magnifies the cell to a point to which we can see it
- Plant and animal cells have small structures inside known as **organelles**, each of these performs a certain role which allows the cell to survive



Specialised cells

- **Specialised cells** are designed to carry out a particular function, because of this they have specific features and adaptations to allow them to carry this out
- Both plant and animal cells can be specialised, with these specialised cells working together to help the organism to survive

Key terms Make sure you can write definitions for these key terms.

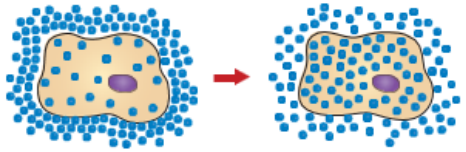
Bioaccumulation Cell Community Competition Concentration Consumer Diffusion Ecosystem Food web Habitat Interdependence Microscope Niche Nucleus Organ Organisms Organ system Predator Prey Producer Population Specialised cells Tissue

Organs

- An organ is a group of tissues that have the same function
- They can work with other organs in an **organ system**, such as the respiratory system which uses organs like the heart and lungs to transfer oxygen around the body
- Vital organs are the organs that need to keep functioning for an **organism** to stay alive, e.g. the heart

Movement into and out of cells

- The process in which substances move into and out of cells is known as **diffusion**
- This occurs across the **cell membrane**
- During diffusion particles move from an area of high **concentration**, to an area of low concentration



- Oxygen and nutrients enter the cell by diffusion, carbon dioxide and waste products leave

LIFE Activate Question • Progress • Succeed
B1 Knowledge organiser

Ecosystems

- All of the organisms which live in one area are known as a **population**
- An **ecosystem** is all of the organisms which are found in a particular location and the area in which they live in, both the living and non-living features
- A **community** are all of the areas in an ecosystem, the area in which the organisms live in is known as the **habitat**
- A **niche** is the specific role in which an organism has within an ecosystem, for example a panda's diet consists of 99 % bamboo

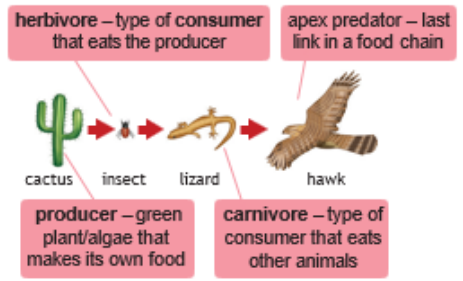
Disruption to food chains

- **Interdependence** is the way in which living organisms rely on each other to survive
- A food chain will be disrupted if one of the organisms die out
- If the producer dies out the rest of the food chain will also die out unless they have a different food source
- If the **consumer** population die out the number of organisms which they eat will increase unless they are eaten by another organism
- **Bioaccumulation** is the process by which chemicals such as pesticides and insecticides build up along a food chain

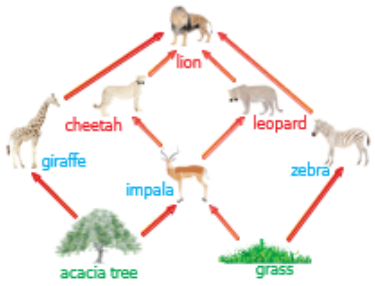
Food chains and webs

- **Food chains** show the direction in which energy flows when one organism eats another
- The direction of the arrows represent the direction in which the energy flows
- **Food webs** show how a number of different food chains are connected

Food chain



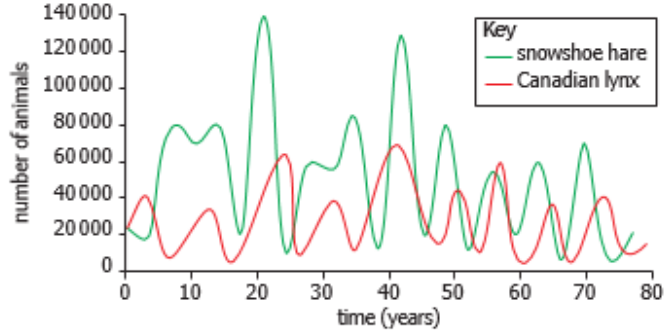
Food web



- **Producers** are the organisms which start the food chain, they convert energy from the Sun, making their own food, these are often plants
- **Prey** are organisms which are eaten by other organisms
- **Predators** are the organisms which eat the prey

Competition

- **Competition** is the process in which organisms compete with one another for resources
- Animals compete for food, water, space and mates
- Plants compete for light, water, space and minerals
- The best competitors are those who have adapted in order to best gain these resources
- As the number of a predator in a population increases the number of the prey will decrease as more are being eaten
- As the number of the predator decreases the number of the prey will increase as less are being eaten
- The relationship between the predator and the prey is known as a **predator-prey relationship**



P2 Infinity
Knowledge organiser

Activate
Question • Progress • Succeed

What is a force?

- A **force** can be a **push** or a **pull**
- A force is measured in **Newtons** (N)
- We measure forces with a **newton meter**
- Forces explain why objects will move, change direction and change speed

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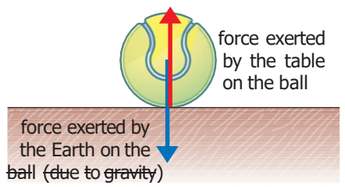
- Forces always act in pairs, we call these **interaction pairs**

e.g. the tennis ball exerts a downward force of **weight** onto the table, the table exerts an equal and opposite reaction force onto the ball



Types of forces

- **Contact forces** act when two objects are physically touching
- **Air resistance** and **friction** are examples of contact forces

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- **Non-contact forces** act when two objects are physically separated (not touching)
- Examples of non-contact forces include **gravitational force** and magnetic forces
- We call the region where an object experiences a non-contact force a **field**, examples of these include gravitational fields and magnetic fields

Gravity

- **Gravity** is a non-contact force that acts between two objects
- **Gravitational force** pulls you back to Earth when you jump
- The size of the gravitational force depends on the mass of the two objects and how far apart they are

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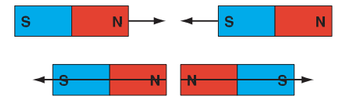
- **Weight** is the downward force caused by gravity acting upon the mass of an object, it is measured in Newtons (N)
- **Mass** is the amount of matter within an object, whereas weight is the downward force of the object, we measure mass in **kilograms**
- We calculate weight with the equation:

$$\text{weight (N)} = \text{mass (kg)} \times \text{gravitational field strength (N/kg)}$$

- The value of the gravitational field strength can vary, so although a person's mass would be the same on different planets, their weight would not be

Magnets

- A **magnet** has two poles, a north and a south pole
- North poles **attract** south poles
- South poles **attract** north poles
- South poles **repel** south poles
- North poles **repel** north poles



- **Magnetic materials** will experience a magnetic force when placed near a magnet, this is a type of non-contact force as the materials do not have to touch for the force to be apparent
- The three magnetic metals are iron, nickel and cobalt

Balanced and unbalanced forces

- When forces acting on an object are the same size, but acting in different directions, we say that they are **balanced**
- When forces are balanced, the object is either not moving (stationary) or moving at a constant **speed**

- When the two forces acting on an object are not the same size, we say that the forces are **unbalanced**
- When forces are **unbalanced**, the object will either be in **acceleration** or **deceleration**
- The **resultant force** is the difference between the two unbalanced forces

Friction and drag

- **Friction** is a force which will slow down a moving object due to two surfaces rubbing on one another
- The greater the friction, the faster an object will slow down, or the greater the force it will need to overcome the force of friction. For example, it is easier to push a block on ice than on concrete, as the ice is smoother and causes less friction

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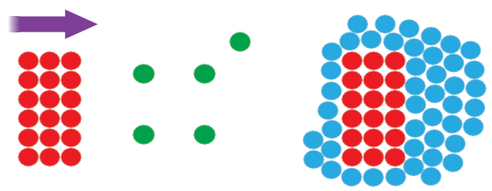
- When an object is moving through a fluid, either liquid or gas, the force which slows it down is known as **drag**
- The fluid particles will collide with the moving object and slow it down, meaning that more force is needed to overcome this
- Both drag and friction are **contact forces** as the two surfaces in friction, and the object and fluid particles in drag, come into contact with one another
- Both drag and friction are forces so they are measured in **Newtons** (N)



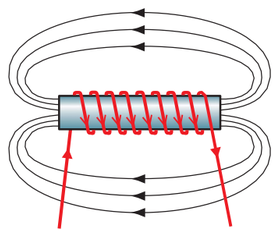
A solid moves through a gas.

A solid moves through a liquid.

Electromagnets

- **Electromagnets** are made by wrapping a coil of wire around a magnetic **core**
- Electromagnets only work when electricity is flowing through the coil, which means that they can be turned on and off
- Electromagnets are also stronger than **permanent** magnets
- The electromagnet will produce the same magnetic field shape as a bar magnet

iron core with current on



- You can increase the strength of an electromagnet by:
  - Increasing the number of turns on the coil around the core of the electromagnet
  - Increasing the current which is flowing through the coil of wire
  - Using a more magnetic material for the core, e.g. iron rather than aluminium

Key terms

Make sure you can write definitions for these key terms.

air resistance, atmospheric pressure, contact force, drag, equilibrium, extension, friction, linear relationship, moment, newton, incompressible, stress, resultant force

C2 Acids and alkalis
Knowledge organiser

Activate
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Chemical reactions

- A **chemical** reaction is a change in which atoms are rearranged to make new substances
- A **reversible** reaction is one where the products can react to get back the substances which you started with, most chemical reactions are not reversible
- You can look for signs that a chemical reaction has taken place such as flames, smells, heat change, a loud bang or gentle fizz

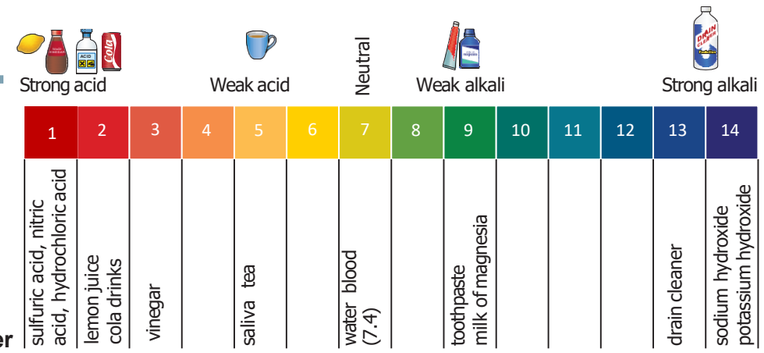
Acids and alkalis

- **Acids** and **alkalis** are the chemical opposites of one another
- Both acids and alkalis can be **corrosive** and **irritants**

To see whether a substance is an acid or an alkali, we can use an **indicator**. Indicators show how acidic or how alkaline a solution is by showing its position on the **pH scale**, one example of this is **universal indicator**

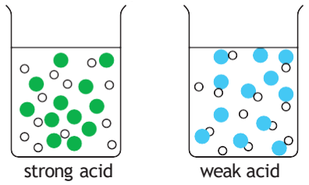
- If the solution has a pH value of 1–6 it is **acidic**
- If the solution has a pH value of 8–14 it is **alkaline**
- If the solution has a pH value of 7 it is known as **neutral**

Another example of an indicator is red & blue **litmus paper**



Acid strength

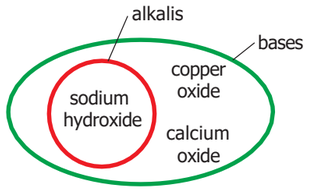
- The strength of an acid depends on how much of the acid has broken apart when it has dissolved in water
- Hydrogen chloride dissolves in water to form hydrochloric acid, this is a **strong acid** as all of the particles split up
- A **weak acid** will have particles that do not all split up



- The **concentration** of the acid is the amount of acid which has dissolved in 1 litre of water
- The more concentrated the acid, the lower the pH

Neutralisation

- **Neutralisation** reactions are any reaction in which acids react with a **base** to cancel out the effect of the acid
- These reactions form a neutral solution with a pH of seven
- A **base** is any substance which neutralises an acid
- An alkali is a base which has been dissolved in water



Salts

Salts are substances which are formed when an acid reacts with a metal or metal compound

Different acids form different types of salts:

- Hydrochloric acids form chloride
- Sulphuric acids form sulphates
- Nitric acids form nitrates

Metal reactions and gas tests

When a metal reacts with an acid it will produce a salt and hydrogen gas, the fizzing that you see is the hydrogen gas being given off

metal + acid → salt + hydrogen

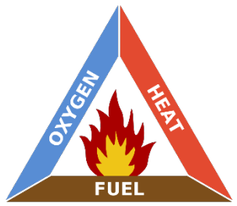
magnesium + hydrochloric acid → magnesium chloride + hydrogen

As most gases are colourless and odourless, it is sometimes necessary to test a gas to see what it is. This helps you to understand what has happened during a reaction.

- To test to see if the gas is hydrogen: put a lit spill in the end of the test tube containing the gas. If there is a squeaky pop sound then the gas is hydrogen.
- The sound is caused by the hydrogen igniting and creating a miniature explosion.
- To test to see if the gas is oxygen: Blow out a lit spill so that the end glows. Put the glowing spill into the test tube containing the gas. If the spill reignites then the gas is oxygen
- To test to see if the gas is carbon dioxide: Put a lit spill into the test tube containing the gas. If the spill is extinguished then the gas **could** be carbon dioxide.
- To confirm the gas should be mixed with lime water (*not from the fruit!).* If the lime water turns a cloudy white then the gas is carbon dioxide

Combustion

- When substances burn in oxygen a chemical reaction called combustion takes place.



- Combustion can only take place when there is a fuel to burn, heat to start the reaction and plenty of oxygen. The product of the reaction is an oxide.
- carbon + oxygen → carbon dioxide
- copper + oxygen → copper oxide
- iron + oxygen → iron oxide
- magnesium + oxygen → magnesium oxide

Key terms

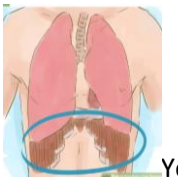
Make sure you can write definitions for these key terms.

acid **acidic** **alkali** **alkaline** **base** **chemical** **chemical reaction** **concentration** **corrosive** **displacement** **hydroxide** **indicator** **irritant** **neutral** **concentrated** **neutralisation** **oxide** **oxidation** **pH scale** **reversible** **reactivity** **salt** **strong acid** **universal indicator** **weak acid** **combustion** **lime water**

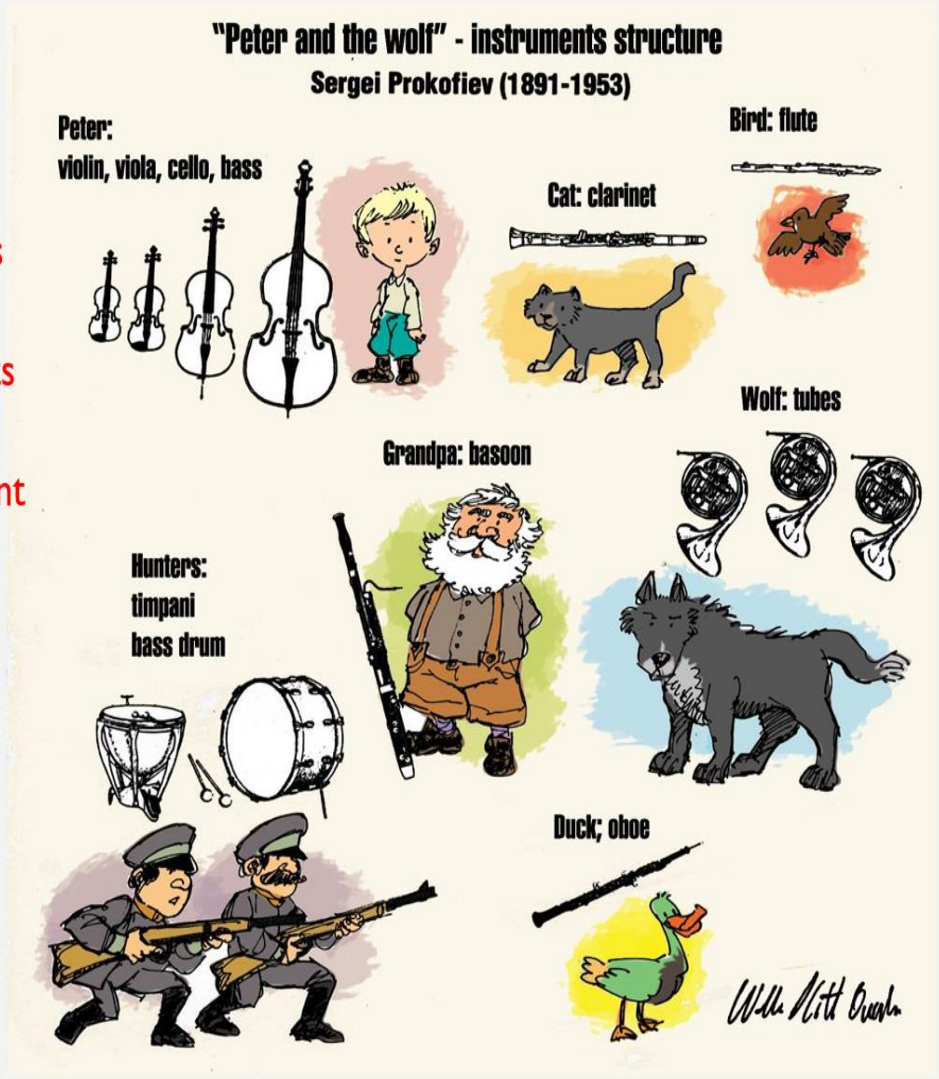
Music Year 7 Spring term

Vocal studies

A cappella	**Singing without musical accompaniment**
Ensemble	**A musical group**
Call and Response	**Question and answer phrases**
Unison	**Singing the same note all together**
Harmony	**Singing more than 1 note at the same time**

-  Your diaphragm is a muscle which is located beneath your heart and lungs. You may have noticed this muscle when it has spasmed and given you hiccups but this muscle is really important to use when singing.
- Your diagram helps support your singing voice and controls how much air goes in and out of your lungs to help you project your voice.
- To become a better singer you should try to strengthen this muscle.

The Characters and the instruments being used to represent them



Life in the Arctic

Key revision
https://bitly.ws/35Fjz

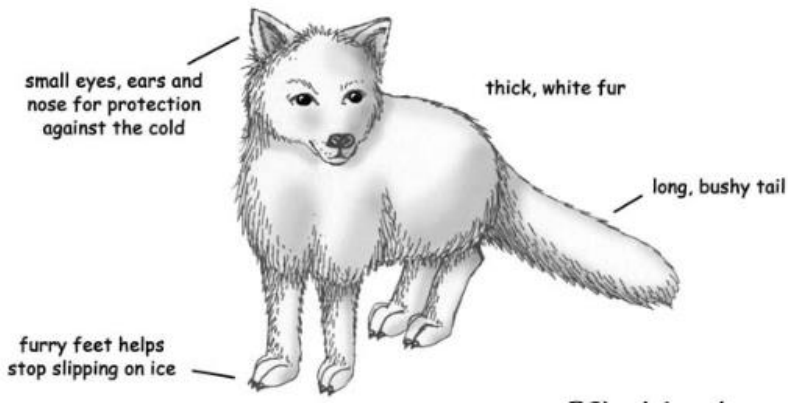
Some months of the year, in winter, the Arctic receiv es 24 hours of dark. This is called 'polar night'. For some months there is 24 hours of sunlight. This is called 'midnight sun'.

Svalbard is one of the most northern, inhabited locations on Earth. The population is less than 3,000 people.

Cotton Grass

-has small seeds that can easily be dispersed by the wind to ensure its survival. It is low lying to protect it from cold winds and has thin leaves to reduce water loss by transportation
-grows and produces seeds quickly as soon as the temperature increases

Arctic Fox
Martes pennanti



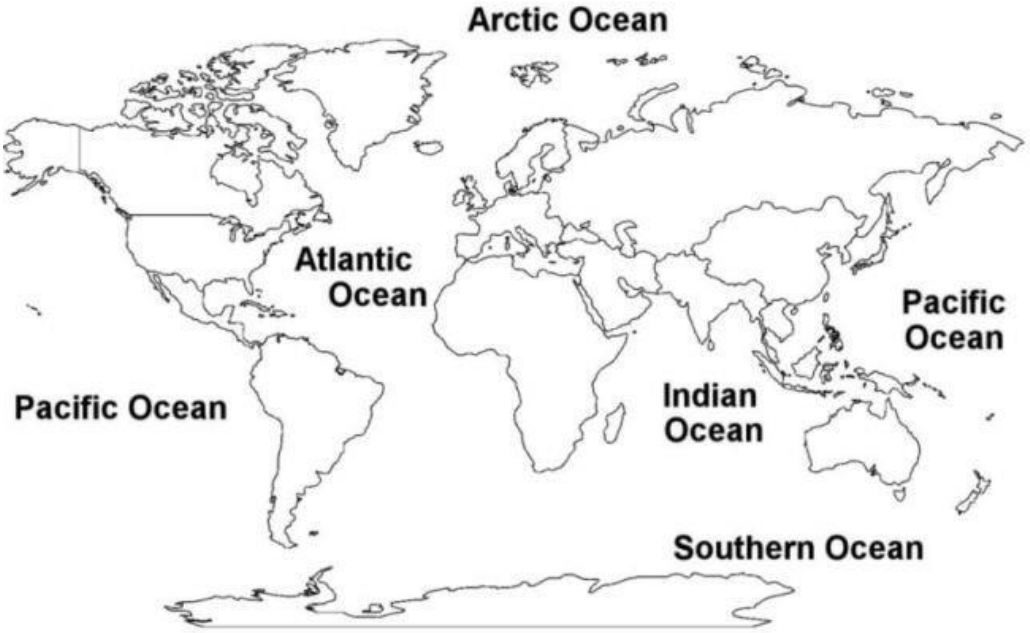
10 key words

1. Permafrost
2. Tundra
3. Primary Consumer
4. Secondary Consumer
5. Tertiary Consumer
6. Producer
7. Adaptation
8. Food web
9. Hemisphere
10. Altitude

Producer	Primary Consumer	Secondary Consumer	Tertiary Consumer
Convert energy from the sun into plant food	Feed on producers.	Feed on primary consumers.	Feed on secondary consumers.

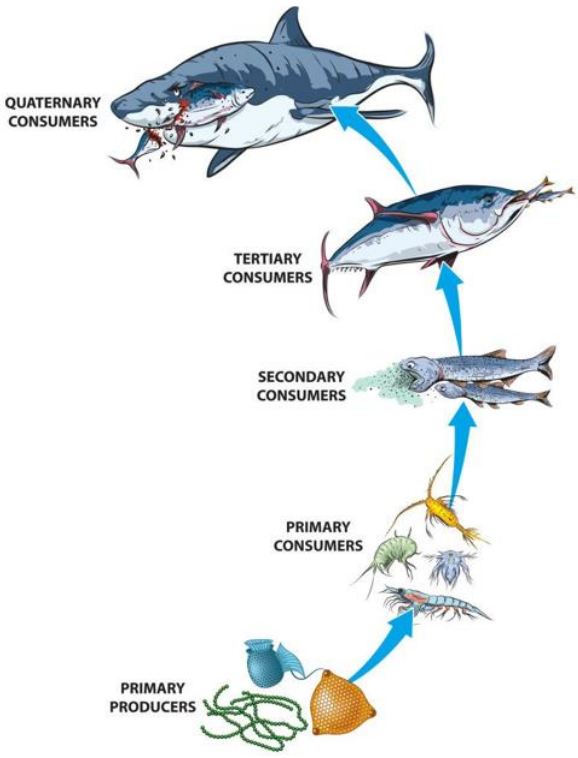
The Arctic Tundra
Cold, harsh climate. Barren landscape.

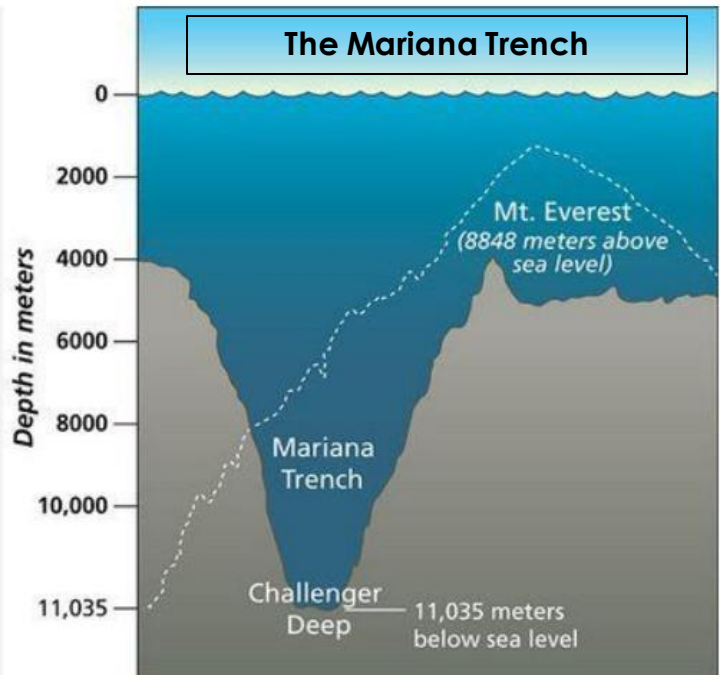
Water World

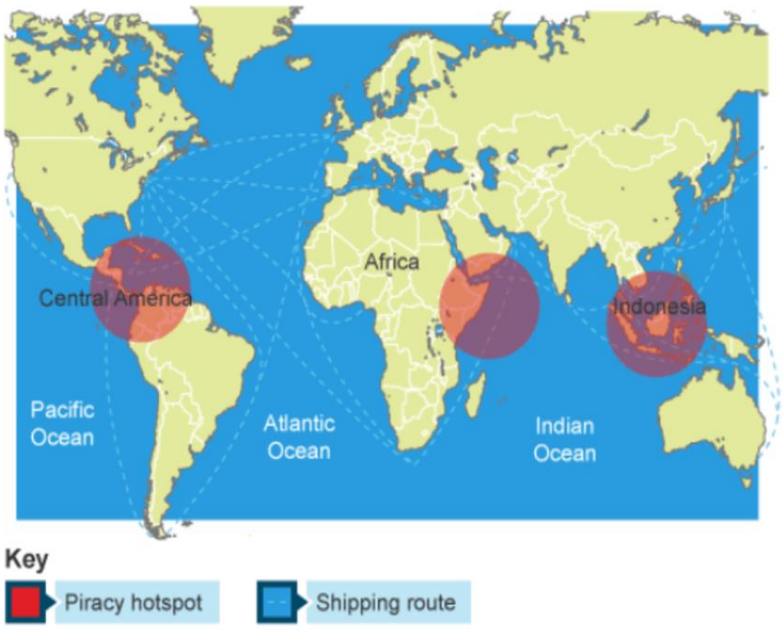


Oceans are very large and deep bodies of water that cover 70% of the Earth. The five oceans are in fact one giant interconnected body of water. **Seas** are smaller and partially enclosed by land, there are over 50 small seas.

Key revision
https://bitly.ws/35Fem







Year 7 Knowledge Organiser

Spring Term

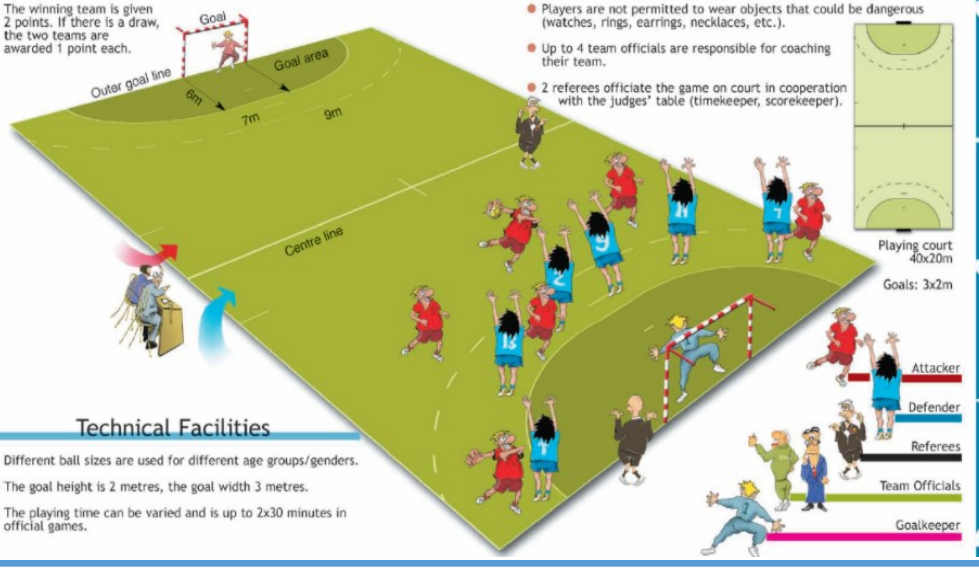
How well do you understand handball?

Get ahead of the game

If you've already done your Netball rotation, keep the positions in your head. If your Netball is still to come you need to learn these

The Basic Principles of Handball

- Handball is a team sport based on "fair play" principles.
- On court there are two male or female teams playing against each other, both trying to score goals with a handball.
- The team that has scored the most goals when the playing time is over is the winner.
- The winning team is given 2 points. If there is a draw, the two teams are awarded 1 point each.



Technical Facilities

- Different ball sizes are used for different age groups/genders.
- The goal height is 2 metres, the goal width 3 metres.
- The playing time can be varied and is up to 2x30 minutes in official games.

Teams/Players/Team Officials/Referees

- Each team consists of up to 14 players. On court a team has 6 field players and 1 goalkeeper.
- Within each team the players are interchangeable during the game.
- All field players of a team wear identical, coloured uniforms. Goalkeepers wear uniforms that differ from those of the field players.
- Players are not permitted to wear objects that could be dangerous (watches, rings, earrings, necklaces, etc.).
- Up to 4 team officials are responsible for coaching their team.
- 2 referees officiate the game on court in cooperation with the judges' table (timekeeper, scorekeeper).

BASIC SKILLS

Sit Ups | Wall Throw | Stork Stand | Ruler Drop | SLJ

Fitness Tests

Cooper Run

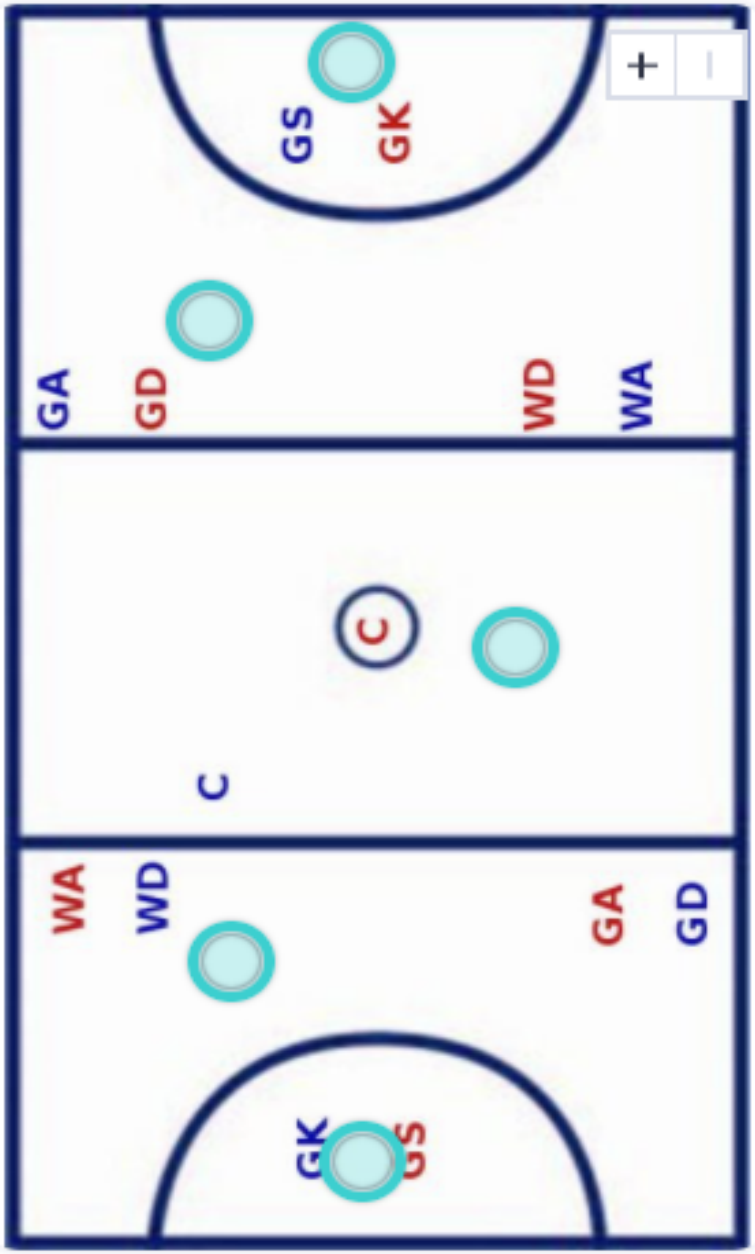
30M Sprint

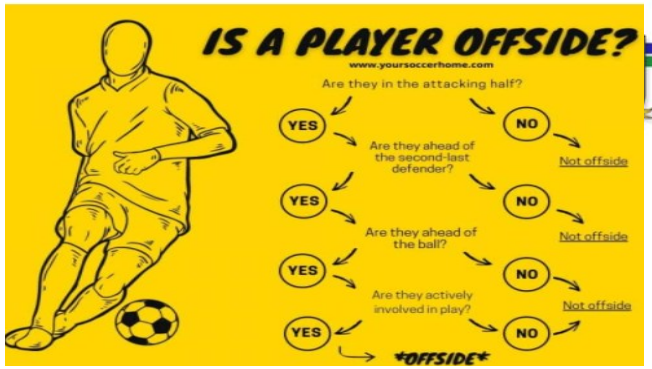
Sit & Reach

Vertical Jump

Agility Run

Speed Bounce





UNIT 6 – Part 1 (Intro)

Talking about my family members, saying their age and how well I get along with them. Counting to 100.

		MASCULINE	FEMININE
Yo	**soy**	**alto** *[tall]*	**alta** *[tall]*
		bajo *[short]*	**baja** *[short]*
		bueno *[good]*	**buena** *[good]*
		delgado *[slim]*	**delgada** *[slim]*
		feo *[ugly]*	**fea** *[ugly]*
		fuerte *[strong]*	**fuerte** *[strong]*
		gordo *[fat]*	**gorda** *[fat]*
		guapo *[handsome]*	**guapa** *[pretty]*
		musculoso *[muscular]*	**musculosa** [muscular]
Mi hermana menor [*my younger sister*]	**es**	**aburrido** *[boring]*	**aburrida** *[boring]*
Mi hermano mayor [*my older brother*]		**antipático** *[mean]*	**antipática** *[mean]*
Mi madre [*my mother*]		**divertido** *[fun]*	**divertida** *[fun]*
Mi padre [*my father*]		**generoso** *[generous]*	**generosa** *[generous]*
		malo *[bad]*	**mala** *[bad]*
		simpático *[nice/friendly]*	**simpática** *[nice/friendly]*
		terco *[stubborn]*	**terca** *[stubborn]*

UNIT 6 (Part 2)
Describing my family and saying why I like/dislike them

En mi familia tengo *[In my family I have…]* **Hay <u>cuatro</u> personas en mi familia** *[There are <u>four</u> people in my family…]* **Me llevo bien con…** [*I get along well with…]* **Me llevo mal con…** [I get along badly with…]	**mi abuelo, Jaime** *[my grandfather James]* **mi padre, Juan** *[my father John]* **mi tío, Iván** *[my uncle Ivan]* **mi hermano mayor /menor, Darren** *[my big/little brother Darren]* **mi primo, Ian** *[my cousin, Ian]*	**Me gusta "mi _____" porque es…** *[I like my _____ because he is…]* **"Mi padre" es muy/bastante…** *[My dad is very/quite …]* **"Mi padre" también es un poco…** *[My dad is also a bit …]*	**alto** *[tall]* **bajo** *[short]* **bueno** *[good]* **delgado** *[slim]* **fuerte** *[strong]* **gordo** *[fat]* **guapo** *[handsome]* **antipático** *[mean]* **divertido** *[fun]* **generoso** *[generous]* **inteligente** *[clever]* **simpático** *[nice/kind]* **terco** *[stubborn]*
	mi abuela, Adela *[my grandmother Adela]* **mi madre, Angela** *[my mother Angela]* **mi tía, Gina** *[my aunt Gina]* **mi hermana mayor /menor, Wendy** *[my big/little sister Wendy]* **mi prima, Clara** *[my cousin Clara]*	**Me gusta "mi _____" porque es…** *[I like my _____ because she is…]* **"Mi madre" es muy/bastante…** *[My mum is very/quite …]* **"Mi madre" también es un poco…** *[My mum is also a bit …]*	**alta** *[tall]* **baja** *[short]* **buena** *[good]* **delgada** *[slim]* **fuerte** *[strong]* **gorda** *[fat]* **guapa** *[pretty]* **antipática** *[mean]* **divertida** *[fun]* **generosa** *[generous]* **inteligente** *[clever]* **simpática** *[nice/kind]* **terca** *[stubborn]*

DRAMA
AT THOMAS ESTLEY

Introduction to Drama:

Students will Understand, Explore and apply a variety of Drama Skills:

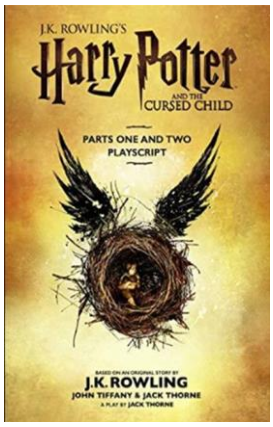
Vocal- Projection, Pitch, Intonation, Accent, Clarity, Inflection, Emotional range, Pace/ pause and timing.

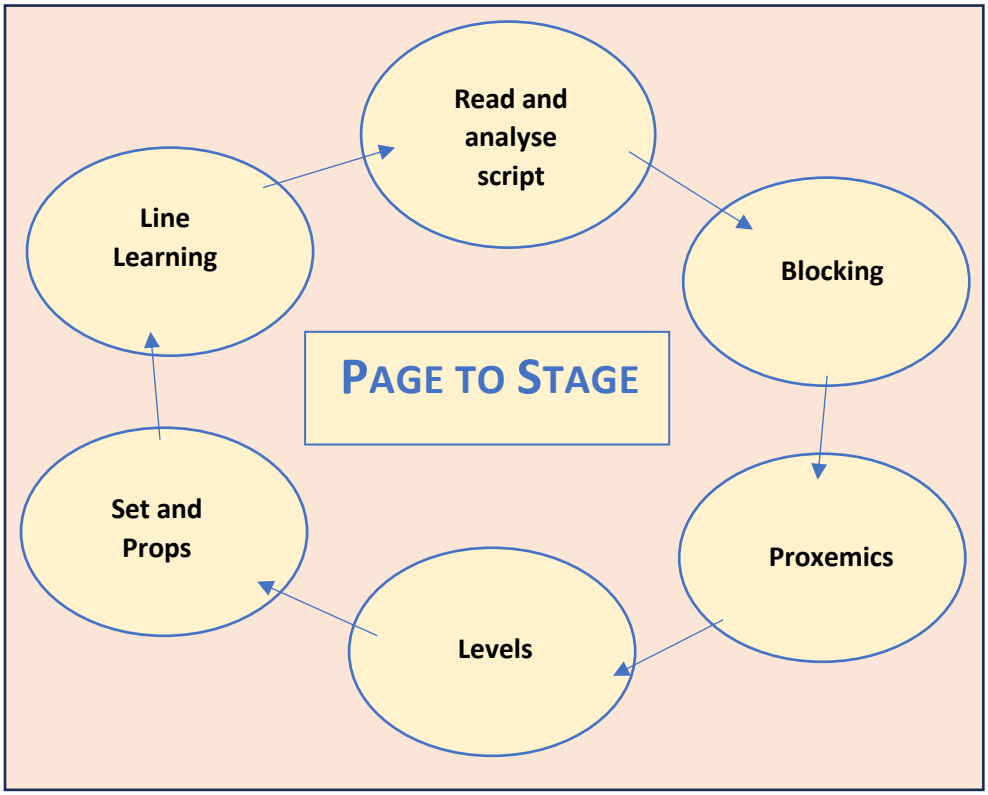
Physical- Characterisation, Gesture, Facial expression, Posture, Spatial awareness, Eye contact, Coordination, Timing and Expression of mood.

Before applying them to the creation of their own original material through the process of Devising from a stimulus.

Harry Potter and The Cursed Child:

Students will, explore and apply the page to stage process to the play 'Harry Potter and The Cursed Child' through a variety of workshops and performances in a range of group sizes.



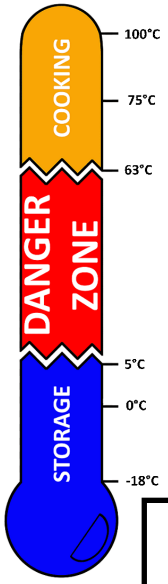


DRAMA TERMINOLOGY BANK:

- Devising: A collaboration in response to a stimulus leading to the creation of an original performance.
- Stimulus: The initial idea or inspiration for the drama.
- Page to Stage Process: Read and analyse script, Blocking, Proxemics, levels, set and props, line learning and application of vocal and physical skills.
- Blocking: Planned movement that is linked to a character's motivations and emotions.
- Proxemics: The use of space between actors and how it communicates their relationship to the audience.
- Duologue: a play or part of a play with speaking roles for only two actors.
- Naturalism theatre: theatre that attempts to create an illusion of reality through a range of dramatic and theatrical strategies.
- Epic Theatre: didactic drama presenting loosely connected scenes that avoid illusion and often interrupt the story line to address the audience directly with analysis, argument, or documentation.

Year 7 - Healthy Eating

Food safety and hygiene is about protecting people and reducing the risk of food poisoning.



https://www.youtube.com/watch?v=kEZvOyp_-8c

The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet.

https://www.youtube.com/watch?v=7MlE4G8ntss
https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/

COOKING AND NUTRITION

Get active.

https://www.nhs.uk/change4life/activities/sports-and-activities
https://www.youtube.com/watch?v=k5Y9D37KmJo

The 8 tips for healthy eating can help you make healthier choices.

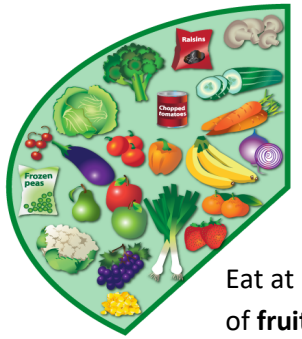
https://www.youtube.com/watch?v=UIQ1Hyq9HG0
https://www.nhs.uk/live-well/eat-well/eight-tips-for-healthy-eating/

https://www.youtube.com/watch?v=PByM12M1n3A

Starchy foods give us the energy we need to keep going each day.

Key vocabulary

clean / cook / chill / separate
cross-contamination / safety
bacteria / food poisoning
temperatures / danger zone
carbohydrates / protein
dairy / function / hydration
seasonality / portion
calories / energy



Eat at least 5 portions of a variety of **fruit and vegetables** every day.

https://www.youtube.com/watch?v=K5pW7rpMTQw

Water.

https://www.youtube.com/watch?v=24lvMvFKFZo
https://www.youtube.com/watch?v=b7s2Aqj72Q8

Foods high in fat, salt and sugars should be eaten less often and in smaller amounts.

= 6g

https://www.youtube.com/watch?v=Jfac64PI14Q
https://www.youtube.com/watch?v=vADtodHhfKU

Year 7 - Cooking skills

Equipment

 Vegetable peeler	 Measuring jug	 Mixing bowl	 Colander	 Box grater
 Digital scales	 Saucepan	 Frying pan	 Flour dredger	 Pastry brush

Skills and Processes

Bridge hold and Claw grip


Used in: fruit salad, pasta salad, sausage rolls, Spanish omelette, potato wedges and salsa

Weighing and Measuring



Used in: fruit salad, pasta salad, cheesy pinwheels, goujons, breakfast muffins, sausage rolls, scones, potato wedges

Knife skills: peeling, chopping, slicing, dicing


Used in: fruit salad, pasta salad, sausage rolls, Spanish omelette, potato wedges and salsa

Rubbing in technique


Used in: cheesy pinwheels and scones

Key word	Meaning
Enzymic browning	Discolouration that occurs when some fruit/vegetables (eg. apples, bananas, potatoes) are cut; caused by exposure to oxygen in the air.
Boiling	Water boils at 100°C, vigorous bubbles are visible. Pasta can be cooked this way.
Rubbing in	Combining butter and flour together using your fingertips.
Enrobing	Coating an item of food (eg. fish, chicken) in flour, egg, breadcrumbs.
Glazing	Brushing with a milk or egg wash to give colour and shine to your food product (eg. sausage rolls, scones)

Independent skills I need to learn in Year 7

- **Use the bridge hold and claw grip** to cut food safely and accurately.
- **Use a range of other preparation techniques** eg. peeling, chopping, slicing, dicing, grating etc.
- **Weigh and measure** ingredients accurately.
- **Organise** all my ingredients and follow a recipe.
- **Use the cooker** (eg. hob and oven) safely.

Food safety

Using **colour coded chopping boards** and equipment prevents **bacteria** spreading and causing **food poisoning**.

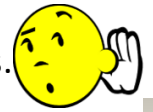
ART & DESIGN KNOWLEDGE ORGANISER

CLASSROOM RULES

1. Hang your coat and blazer on pegs.
2. Put your bag **UNDER** the table.
3. Pencil cases **ON** the table.

Hessian mat stops your work sticking to the table.

4. **ALWAYS** listen carefully to instructions.



5. Wash hands after using paint, clay etc.

Tie your hair up.

Always wear an apron.

PAINT NAMES

Black
Vandyke Brown
Burnt Sienna
Crimson
Vermillion
Prussian Blue
Ultramarine
Hookers Green
Leaf Green
Yellow Ochre
Gamboge
White

CLAY LESSON

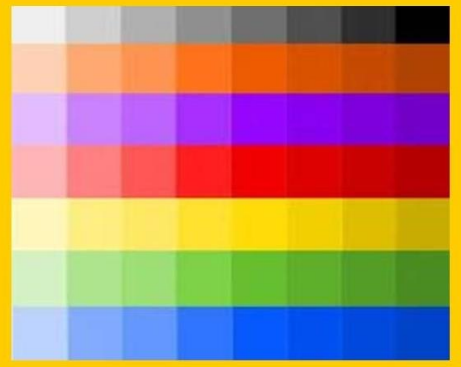
Guide rules help you to roll out the clay evenly.

LINE

A Line is the path left by a moving point, e.g. a pencil or a brush dipped in paint. A line can take many forms. e.g. horizontal, diagonal or curved. A Line can be used to show Contours, Movements , Feelings and Expressions.

TONE

Tone means the lightness or darkness of something. This could be a shade or how dark or light a colour appears

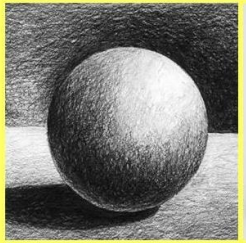


SHAPE & FORM

A shape is an area enclosed by a line. It could be just an outline or it could be shaded in.

Form is a three dimensional shape such as a sphere, cube or a cone.

Sculpture and 3D design are about creating forms



FORMAL ELEMENTS

TEXTURE

Texture is the surface quality of something, the way something feels or looks like it feels. There are two types of texture: Actual Texture and Visual Texture.

Actual Texture– really exists so you can feel it or touch it

Visual Texture—created using different marks to represent actual texture.

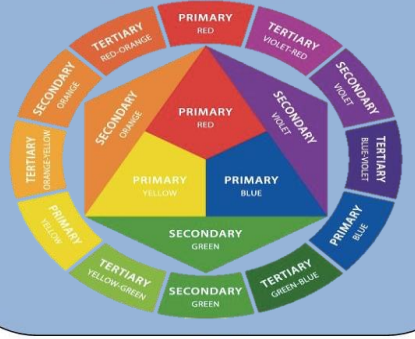
Actual Texture

Visual Texture

COLOUR

There are 3 Primary Colours:
RED, YELLOW and BLUE.

By mixing any two Primary Colours together we get a Secondary Colour;
ORANGE, GREEN and PURPLE



PATTERN

A pattern is a design that is created by repeating lines, shapes, tones or colours.

Patterns can be manmade, like a design on fabric, or natural, such as the markings on animal fur.

Year 7 CRE – Diversity and Respect

Key Words

Diversity

Importance

Difference

Influence

Community

Belief

Morals

Religion

Identity

Respect

Things to think about:

1. Why is the UK so diverse?
2. What is diversity?
3. Why is respect important?
4. How should I react to difference?
5. What influences me?
6. What type of person would I like to be?
7. What do Christians believe?
8. What do Muslims believe?
9. How does religion impact us?
10. How can I make a difference?
11. How should I treat others?
12. How is Leicester diverse?
13. How does diversity impact me?

Examples of how Leicester is diverse:

- 59.1 per cent of people living in Leicester are from ethnic minority groups.
- 41.1% of individuals living in Leicester were born outside of the UK.
- Leicester is home to 240 faith groups across 14 different faiths and beliefs.

Protected Characteristics

- Race
- Religion
- Disability
- Gender
- Sexuality
- Age
- Marriage
- Transgender
- Pregnancy

UNIT 4

Saying where I live and am from

<table>
<tr>
<td rowspan="11">Je m’appelle David et…
[my name is David and…]</td>
<td rowspan="3">je vis dans
[I live in]

j’habite dans
[I live in]</td>
<td>une
[a]</td>
<td>jolie [pretty]
belle [beautiful]
grande [big]
petite [small]</td>
<td>maison
[house]</td>
<td rowspan="2">dans le centre
[in the centre]

dans la banlieue
[on the outskirts]

sur la côte
[on the coast]</td>
</tr>
<tr>
<td>un appartement
[a flat]</td>
<td colspan="2">dans un bâtiment ancien
[in an old building]
dans un bâtiment moderne
[in a modern building]
dans un bâtiment neuf
[in a new building]</td>
</tr>
<tr>
<td colspan="4"></td>
</tr>
<tr>
<td rowspan="8">je suis de
[I am from]</td>
<td>Biarritz</td>
<td colspan="2">dans le Pays basque [southwest region of France]</td>
</tr>
<tr>
<td>Brest</td>
<td colspan="2">en Bretagne (en France) [northwest of France]</td>
</tr>
<tr>
<td>Bruxelles</td>
<td colspan="2">en Belgique (la capitale) [capital of Belgium]</td>
</tr>
<tr>
<td>Casablanca</td>
<td colspan="2">au Maroc (sur la côte) [coast of Morocco]</td>
</tr>
<tr>
<td>Dakar</td>
<td colspan="2">au Sénégal (la capitale) [capital of Senegal]</td>
</tr>
<tr>
<td>Fort-de-France</td>
<td colspan="2">en Martinique (la capitale) [capital of Martinique]</td>
</tr>
<tr>
<td>Libreville</td>
<td colspan="2">au Gabon (la capitale) [capital of Gabon]</td>
</tr>
<tr>
<td>Montréal</td>
<td colspan="2">au Québec [Quebec, Canadian province]</td>
</tr>
<tr>
<td>Nice</td>
<td colspan="2">en Provence (en France) [southeast of France]</td>
</tr>
<tr>
<td>Nouméa</td>
<td colspan="2">en Nouvelle Calédonie [New Caledonia]</td>
</tr>
<tr>
<td>Paris</td>
<td colspan="2">en France (la capitale) [capital of France]</td>
</tr>
<tr>
<td>Saint-Denis</td>
<td colspan="2">à la Réunion (la capitale) [capital of Reunion island]</td>
</tr>
<tr>
<td>Strasbourg</td>
<td colspan="2">en Alsace (en France) [northeast region of France]</td>
</tr>
</table>

UNIT 5

Talking about my family members, saying their age and how well I get along with them. Counting to 100.

<table>
<tr>
<td rowspan="2">Dans ma famille, j'ai
[in my family, I have…]

Il y a <u>quatre</u> personnes dans ma famille
[there are <u>four</u> people in my family…]

Je m'entends bien avec…
[I get on well with…]

Je ne m'entends pas bien… [I don't get on well with…]</td>
<td>mon grand-père, Léon
[my grandfather Léon]

mon père, Jean
[my father Jean]

mon oncle, Yvan
[my uncle Yvan]

mon petit/grand frère, David
[my little/big brother David]

mon cousin, Tanguy
[my cousin, Tanguy]</td>
<td>Il a</td>
<td rowspan="2">un [1]

deux
trois
quatre
cinq
six
sept
huit
neuf
dix
onze [11]
douze [12]
treize [13]
quatorze [14]
quinze [15]
seize [16]
dix-sept [17]
dix-huit [18]
dix-neuf [19]
vingt [20]
vingt-et-un [21]
vingt-deux [22]
trente [30]
trente-et-un [31]
trente deux [32]
quarante [40]
cinquante [50]
soixante [60]
soixante-dix [70]
quatre-vingts [80]
quatre-vingt-dix [90]
cent [100]</td>
<td rowspan="2">an

ans</td>
</tr>
<tr>
<td>ma grand-mère, Adeline
[my grandmother Adeline]

ma mère, Anne
[my mother Anne]

ma tante, Gisèle
[my aunt Gisèle]

ma petite/grande sœur, Léa
[my little/big sister Léa]

ma cousine, Claire
[my (girl) cousin Claire]</td>
<td>Elle a</td>
</tr>
</table>

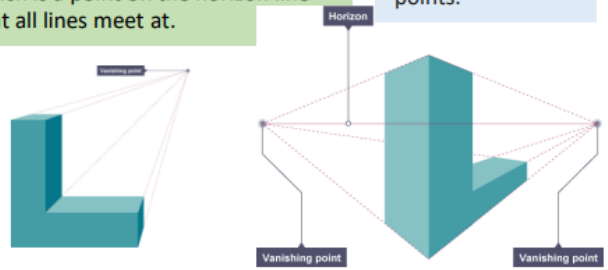
UNIT 6 (Part 1/2)
Intro to describing myself and another family member

		MASCULINE	FEMININE
Je	**suis**	**beau** *[handsome]*	**belle** *[pretty]*
		fort *[strong]*	**forte** *[strong]*
		grand *[tall]*	**grande** *[tall]*
		gros *[fat]*	**grosse** *[fat]*
		mince *[slim]*	**mince** *[slim]*
		moche *[ugly]*	**moche** *[ugly]*
		musclé *[muscular]*	**musclée** *[muscular]*
		petit *[short]*	**petite** *[short]*
Ma petite sœur *[my little sister]*	**est**	**méchant** *[mean]*	**méchante** *[mean]*
		ennuyeux *[boring]*	**ennuyeuse** *[boring]*
Mon grand frère *[my big brother]*		**généreux** *[generous]*	**généreuse** *[generous]*
		marrant *[fun]*	**marrante** *[fun]*
Ma mère *[my mother]*		**sympathique** *[nice/friendly]*	**sympathique** *[nice/friendly]*
		têtu *[stubborn]*	**têtue** *[stubborn]*
Mon père *[my father]*		**timide** *[shy]*	**timide** *[shy]*

Year 7 Resistant Materials Knowledge Organiser

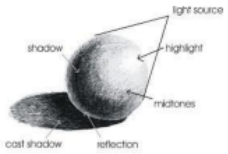
Single-point perspective - This shows an object from the front in a realistic way as it gets smaller going into the distance. The front view goes back towards a **vanishing point**, which is a point on the horizon line that all lines meet at.

Two-point perspective - This shows an object from the side with two vanishing points.

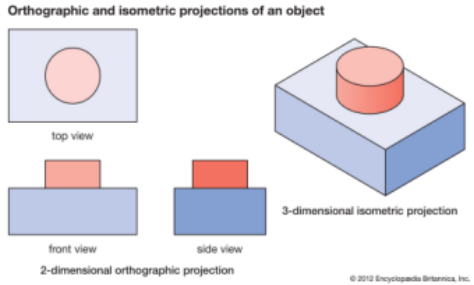


Rendering
Creating the illusion of light , tone and texture using graphic materials. Creating the illusion that an object is made from a particular material.

3 Tone shading

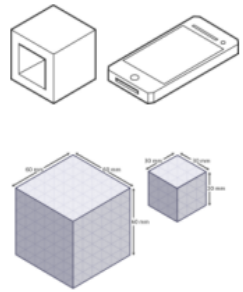


Orthographic Projection
They are used to show an object from every angle to help manufacturers plan production. Starting with a front view of a product, **construction lines** show where areas join and are used to draw a side and plan (top) view, ensuring that the drawing is accurate from all angles. These drawings are **to scale** and must show **dimensions**.



Freehand sketching is the quickest way of getting your initial designs on paper before an idea is forgotten. Freehand sketches are often done without a ruler or template and instead are produced quickly and freely.

Isometric
Isometric drawings, sometimes called isometric projections, are a good way of showing measurements and how components fit together. Unlike perspective drawings, they don't get smaller as the lines go into the distance.
There are three main rules to isometric drawing:
- **horizontal** edges are drawn at 30 degrees
- **vertical** edges are drawn as vertical lines
- **parallel** edges appear as parallel lines

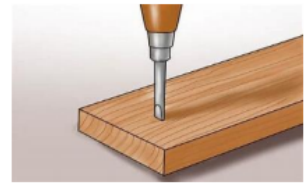


Personal protective equipment (PPE)
- Apron
- Leather gloves
- Goggles
- Sturdy shoes

Surface treatments and finishes
Used to improve the appearance and protect the material. Polish , varnish , paint , wax and stain are examples.

Wasting tools
Coping saw – used to cut curved lines
Junior hacksaw - used for sawing plastic and metal
Hand file – used to shape materials
Rasp – used to shape wood
Pillar drill – used to drill holes
Needle file – used to shape materials , remove material is small spaces
Disc sander : used to waste material

Marking and measuring tools
Steel rule
Bradawl
Centre punch
Marking knife
Try square



Metals and alloys

Metals are found naturally and are mined from the earth. Metals used in products are **extracted** from the natural **ore** using large heat furnaces.

Ferrous metals
Ferrous metals contain iron and are **magnetic**. They are prone to **rust**.

Non-ferrous metals do not contain iron and are not magnetic. They do not rust.

Alloys are mixtures of metal with an element to improve its properties or **aesthetic**. For example brass is a mixture of copper and zinc. Alloys can also be classified as ferrous or non-ferrous.

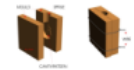
Timbers

Wood comes from trees that are felled. There a are three main groups of wood:

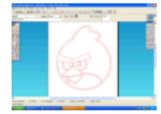
Hardwoods - take longer to grow, are not easily sourced and are expensive to buy. Oak , beech and mahogany are hardwoods.
Softwoods - They are faster growing than hardwoods, making them cheaper to buy, and are considered a **sustainable** material. Pine is a softwood

Manufactured board - Manufactured boards are usually made from timber waste and **adhesive**. To make them more aesthetically pleasing they are often **veneered**. They are cheap to buy.

Moulds and casting – used to make complex shapes

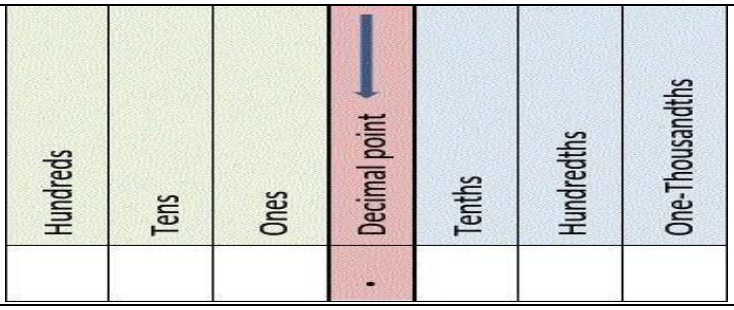
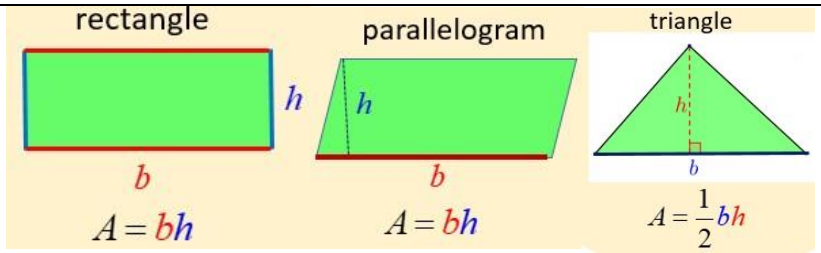


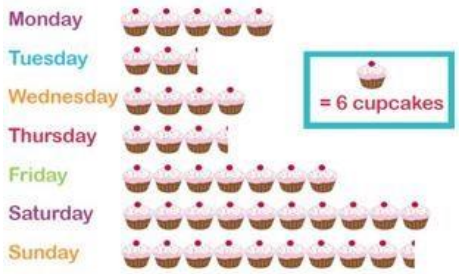
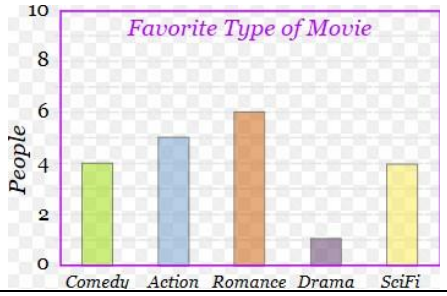
Computer aided design (CAD) now has the capability to design new products in 3D, visualise them in a variety of materials and send images around the world for collaboration and consultation.



By using **computer aided manufacture (CAM)**, designs can be sent to CAM machines such as laser cutters, 3D printers and milling machines.

Y7 Spring Maths Knowledge Organiser

Topic	Key fact	Hegarty maths clip number
Read, write and compare positive integers and decimals		13, 14 45 & 46
Multiply and divide by powers of 10	Multiplying: Move the digits to the left Dividing: Move the digits to the right	15 & 16
Calculations with integers	Addition and Subtraction: put in columns Multiplication: Remember place holder Division: Remember bus stop and remember to carry	1 to 12 & 18 to 23
Rounding	5 or more: round up 4 or less: keep the same Look to the right Significant figures: start counting at first non-zero	17, 56 & 130
Estimation	Round each value to 1 significant figure	131
Simplify expressions	Collect all the 'like' terms (numbers, x, x^2, x^3 are all separate terms) e.g. $12 + 3x + 6x^2 - 2x^3 – 5 - 3x + 5x^2 + 7x^3 = 7 + 11x^2 + 5x^3$ 3y means 3 x y $\frac{7}{x}$ means 7 ÷ x	156 and 157
Simplifying ratio	Divide all parts by the highest common factor. Always include the colon (:).	329
Perimeter	Perimeter is the distance all the way round a shape. All sides added together.	548-552
Area		553-559

Pictograms	Use the key to work out the number of cupcakes sold each day.  5 x 6 = 30 2.5 x 6 = 15 4 x 6 = 24 3.5 x 6 = 21 7 x 6 = 42 10 x 6 = 60 9.5 x 6 = 57	426
Bar charts	Which type of movie was most popular? ***Romance*** How many people said comedy was this favourite? ***4***  How many people were asked in total? 4 + 5 + 6 + 1 + 4 = ***20***	425

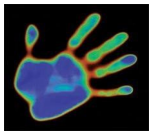
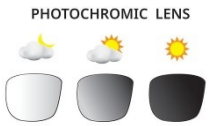
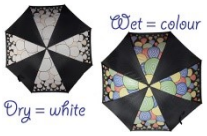
Key Vocabulary

- Integer – a whole number ○ Product – the result of a multiplication. ○ Divisor – the number that you are dividing by. Eg. 16 divided by 2. 2 is the divisor. ○ Quotient - the answer after you divide one number by another.
- Power/Indices - The index of a number says how many times to use the number in a multiplication. It is written as a small number to the right and above the base number. ○ Root – The inverse operation of a power.
- Significant figures - Leading zeros are not significant. For example, 0.00052 has two significant figures: 5 and 2. Trailing zeros in a number containing a decimal point are significant.
- Remainder - A remainder in mathematics is what's left over in a division problem.
- Round - Rounding means making a number simpler but keeping its value close to what it was.
- Truncate – A method of approximating a decimal number by dropping all decimal places past a certain point without rounding. ○ Estimate - To estimate means to find something close to the correct answer. ○ Approximate – an alternative word for estimate. ○ Area: The space inside a 2D shape ○ Perimeter: Distance all around a shape ○ Term- each part of an expression. A single number or variable within an expression.
- Expression- a mathematical sentence containing numbers and variables. ○ Simplify: Write in shorter form.

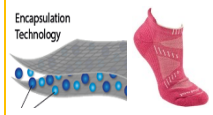
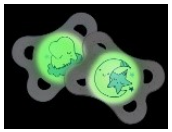
○

Year 7 Textiles - Design and Technology

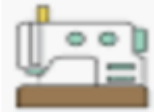
SMART MATERIALS

Material	Example	Properties
Thermo chromic		Changes colour with heat
Photo chromic		Changes colour with light
Memory shape alloy		Metal that returns to original shape
Hydro-chromic		Changes colour in water

Modern MATERIALS

Material	Example	Properties
Kevlar		Very strong and resists cuts, tears.
Nomex		Heat and fire resistant
Micro-encapsulation	 Antibacterial to stop feet smelling	Tiny beads encapsulated with liquid e.g. antibacterial
Phosphorescent		Glows in the dark

Equipment


Sewing machine


Thread


Needle


Scissors

One person at a time.
Keep fingers away from moving parts.
Use slowly and steadily.


Pins


Button

Carry with blade together.
Always cut on the table away from fingers.
Return to scissor rack when finished.


Stitch ripper

Pins and needles are kept in containers.
Use carefully pointing away from fingers and body.


Pattern


Iron


Tape measure


Zipper

Pattern pieces are used to make paper templates before cutting fabric out.

Extremely hot.
Always ask before using.
Turn off after use.
Store hot plate down on rack.

Hand Sewing

Running stitch is quick and easy

Back Stitches are strong and look neat

Whip stitches are used to finish and neaten edges.

More Key words:

Seam - joining two separate pieces of fabric together.

Hem - fold on the edge of fabric which is sewn down making the edge look neat.

Fray - the yarn coming away at the edge of curt fabric.

Dying - when the fabric colour is changed by soaking in water and fabric dye.

NATURAL

Natural fibre from a plant — **Cotton**

Used for making jeans, T-shirts and towels.
- Cool to wear
- Very absorbent
- Dries slowly
- Soft
- Creases easily

Natural fibre from a plant — **Linen**

Used for summer clothing, tea towels and table cloths.
- Very cool to wear
- Very absorbent
- Dries quickly
- Stiffer than cotton
- Creases badly

Natural fibre from a plant — **Bamboo**

Used for clothing and mixed with other fibres like spandex.
- Cool to wear
- Very absorbent
- Soft
- Sustainable (environmentally friendly)

SYNTHETIC

Synthetic Fibre — **Viscose**

Used for shirts, dresses, linings.
- Low warmth
- Absorbent
- Soft
- Good drape
- Not durable
- Creases easily

Synthetic Fibre — **Nylon**

Used for sportswear, socks, seat belts.
- Warm to wear
- Absorbent
- Breathable
- Soft or course
- Can shrink
- Durable

Synthetic Fibre — **Polyester**

Used for raincoats, Fleece jackets, medical textiles.
- Low warmth
- Non-absorbent
- Dries quickly
- Soft
- Very durable
- Crease resistant
- Can be recycled