Thomas Estley Community College
Year 7 Summer Term
Knowledge Organiser

What are Knowledge Organisers?

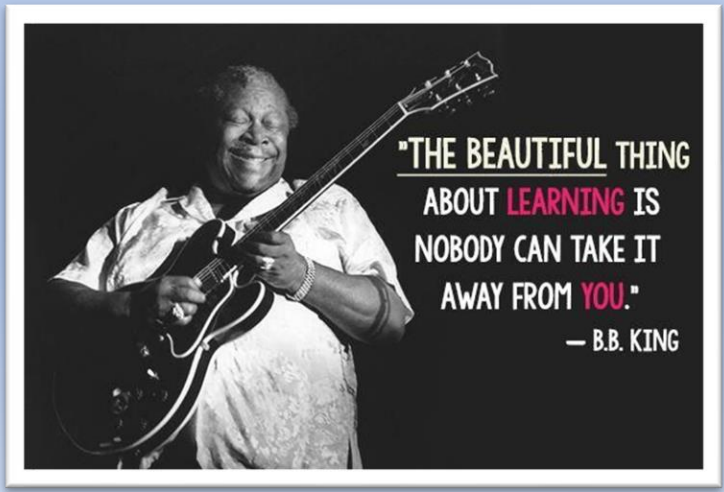
A knowledge organiser is an easy way that each subject can summarise the most important information. Each subject section will include key terms, short explanations, glossary words, diagrams etc making it clear to the student as to what is essential to learn. Each grid has an overall theme and these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



SUCCESS
THOMAS ESTLEY COMMUNITY COLLEGE

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!

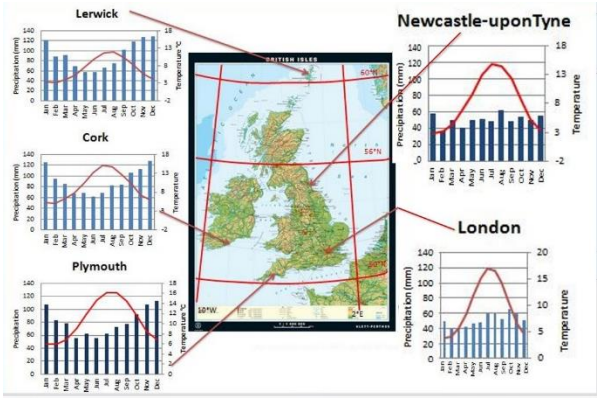
Year 7 Knowledge Organiser (KO) – Weater and Climate

Climate means the **average** weather conditions over a **long** period, usually about 30 **years**.

Whereas the term **weather** means the day-to-day condition of the **atmosphere**, for example the **temperature**, wind, rainfall.

What should I already know?

How to read a climate graph



WARNINGS AS 'BEAST FROM THE EAST' GRIPS THE UK

Thursday 2nd March 2018

The UK is experiencing some of the most difficult weather conditions for years. Snow, ice, strong winds and bitter cold are causing death and disruption as a cold snap – 'Beast from the East' – blasts the country.

As temperatures dropped and up to 50cm of snow fell on high ground, the Met Office issued its most severe alert – a red warning, meaning the weather conditions may pose a risk to life.

Across the UK, thousands of schools have been closed and hospital operations cancelled.

Travel has been disrupted too. Thousands of drivers were left stranded in freezing temperatures as police urged people not to travel, and air and rail passengers faced cancellations and delays.

And the UK economy is feeling the effects too. The weather is costing the UK millions. Shops and businesses have been forced to close early, and some supermarkets ran out of the basics such as bread and milk. And, with over 8000 road accidents in just three days, costs to insurance companies have already reached over £10 million.

	Social impacts
	Economic impacts
	Environmental impacts

The weather is costing the UK millions. The AA estimated that there were 8,260 collisions on Britain's roads from the snow chaos in just three days. Many rail and air travellers also endured delays and cancellations.

Unfortunately, a 75-year-old woman was found dead in a snowy street in Leeds and a 46-year-old van driver died after a collision involving a lorry and a van in Hampshire. Two teenage boys were taken to hospital after they were trapped under a fallen tree in Blackley, Manchester.

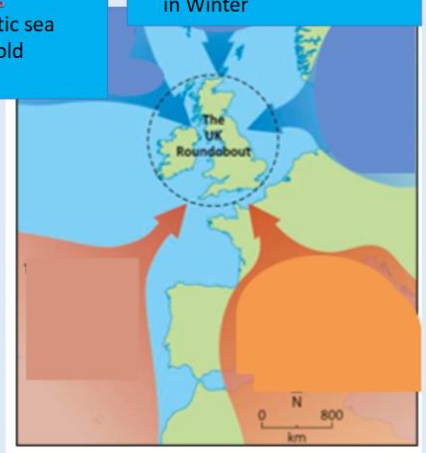
The red warning covered parts of Devon, Somerset and south Wales and prompted Devon and Cornwall police to declare a major incident. It was only the third such warning the Met Office has issued since the current system came into force in 2011.

Keyword	Definition / Explanation
Climate	The average weather conditions in a particular region over a long period (usually 30 years or more). Includes temperature, precipitation, wind, etc.
Weather	The day-to-day atmospheric conditions such as temperature, precipitation, humidity, and wind in a specific location.
Continental	A type of climate that is found inland, away from the sea. It usually has more extreme temperatures – hot summers and cold winters.
Maritime	A type of climate influenced by the ocean or sea. It tends to have milder temperatures and more precipitation, common in coastal areas.
Beast from the East (UK)	A nickname for a severe cold weather event in the UK, caused by cold air from Siberia moving west into Europe. It brought snow, ice, and very low temperatures.

Arctic maritime air mass:
- From the Arctic
- Cold, wet air brings snow in Winter

Polar maritime air mass:
- From Greenland/ Arctic sea
- Cold, wet air brings cold showery weather

Polar continental air mass
- From central Europe
- Hot air brings dry summers, cold air brings snow in winter.

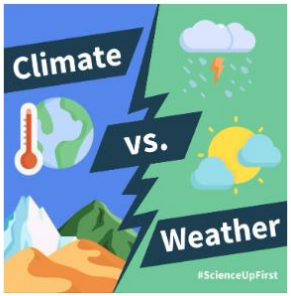


Maritime = from sea/ ocean

Continental = from land

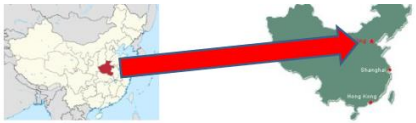
Tropical maritime air mass:
- From the Atlantic
- Warm, moist air and mild weather

Tropical continental air mass:
- From North Africa
- Hot, dry air brings hot weather in summer.



Year 7 Knowledge Organiser (KO) – China

Meet Zhang Wei



He comes from Henan province and his family live in a small village.

He has moved to the city of Beijing to work.

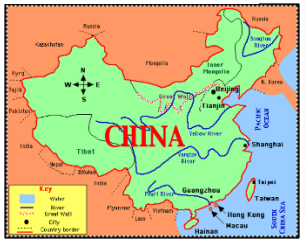
What should I already know?

Map skills

Why Should People Visit China?

Key Facts

The Great Wall
Population of China
The 'Avatar' place – Zhangjiajie
The home of Kung Fu – Shaolin
The Portuguese island – Macau
The home of the Terracotta Warriors – Xian
The home of the Pandas – Chengdu
The Three Gorges Dam
The Bund – Shanghai
Victoria Harbour – Hong Kong
The home of the Dalai Lama - Tibet



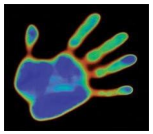
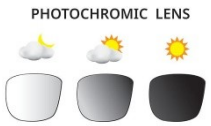
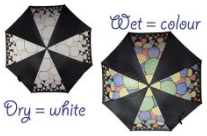
Although China is the 5th largest country in the world in terms of areas, most of the country is inhabitable. The majority of the Chinese people are concentrated into the eastern half of the country

China has not got a lot of farmland (only 7% of world's farmland).	In the north of China there is not enough water. The land can't be used for farming.	The north of Ghana is dry land. It is not very good for farming.	China's cities are getting bigger people need to be able to get food reliably.
China has 20% of the world's population.	China is beginning to use modern machines on its farm land.	China has improved the land in the north by using technology to bring water to the farms.	The south of Ghana has very good land for farming.
China is worried about not having enough food.	Ghana is a poor country.	Ghana does not have enough money to build modern hospitals	Ghana does not have many schools. There is not enough money to build them.
China wants to pay Ghana to use its good farm land in the south.	China will give Ghana farm machines.	China will send Ghana experts to help improve poor farm land in the north.	Ghana grows cocoa to sell abroad. This is one of the main ways that Ghana makes money.
Life is still difficult for farmers in China.	Ghana uses its farmland to grow food for its people.	Gold is found in Ghana and when it is mined it can make people a lot of money.	China wants to have power in African countries.

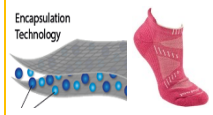
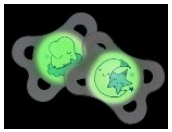
Keyword	Definition / Explanation
Population	The total number of people living in a particular area, country, or region.
Population Pyramid	A graphical illustration that shows the age and sex distribution of a population, often used to understand growth trends.
Rural	Areas located outside towns and cities, typically with low population density and more open space.
Urban	Areas characterized by higher population density, buildings, infrastructure, and development, such as cities or towns.
Rural to Urban Migration	Movement of people from the countryside (rural areas) to towns and cities (urban areas), often for better jobs or services.
Urban to Rural Migration	Movement of people from towns or cities to the countryside, often for a quieter lifestyle or lower living costs.
Counter-Urbanisation	The process where people move from urban areas back to rural areas, reversing earlier urban migration trends.
TNC (Trnsnational Corporation)	A large company that operates in multiple countries, with headquarters in one country but production or services in others. Examples include Apple, Nike, and Shell.

Year 7 Textiles - Design and Technology

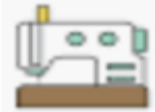
SMART MATERIALS

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.

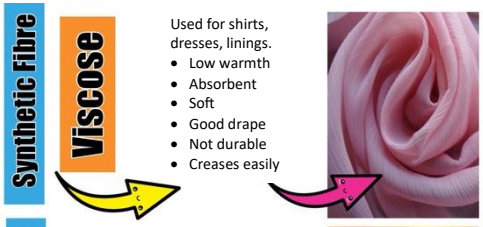
NATURAL

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

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

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

SYNTHETIC



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

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

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

	masculine	feminine		
Yo soy I am **Mi hermana menor es** my younger sister is **Mi hermano mayor es** my older brother is **Mi madre es** my mother is **Mi padre es** my father is	alto [tall] bajo [short] bueno [good] delgado [slim] feo [ugly] fuerte [strong] gordo [fat] guapo [handsome] musculoso [muscular] aburrido [boring] antipático [mean] divertido [fun] generoso [generous] malo [bad] simpático [nice/friendly] terco [stubborn]	alta [tall] baja [short] buena [good] delgada [slim] fea [ugly] fuerte [strong] gorda [fat] guapa [pretty] musculosa [muscular] aburrida [boring] antipática [mean] divertida [fun] generosa [generous] mala [bad] simpática [nice/friendly] terca [stubborn]	**Tengo el pelo** I have…hair **Tiene el pelo** s/he has…hair **Tengo los ojos** I have… eyes **Tiene los ojos** s/he has… eyes	**castaño** [brown] **moreno** [dark brown] **negro** [black] **pelirrojo** [red] **rubio** [blonde] **azules** [blue] **marrones** [brown] **verdes** [green] **negros** [black]
			Me llamo I am called / I call myself… **Se llama** s/he is called	
			[**no] llevo** [I don't] wear [**no] lleva** [s/he doesn't] wear]	**gafas** [glasses] **bigote** [a moustache] **barba** [a beard]

Year 7 Spanish
Sub-Unit 4 sentence builder

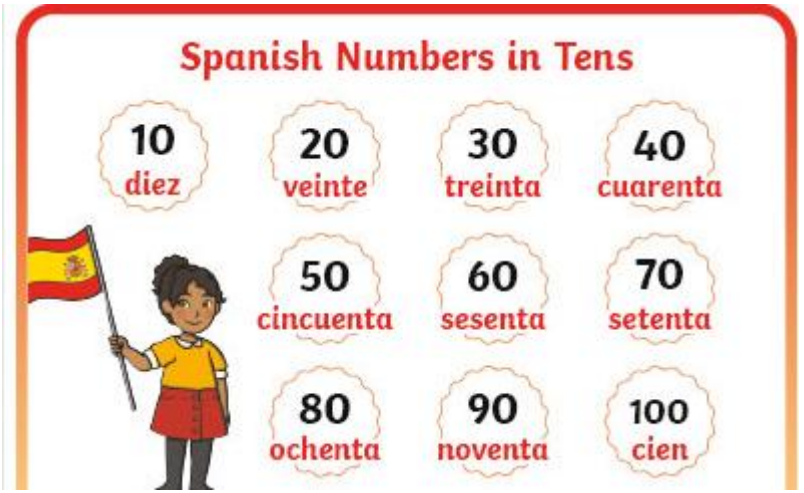
Questions

¿Cómo eres? What are you like?

¿Cómo es…..? What is ….. like?

¿Cuántos años tienes? How old are you?

¿Cuándo es tu cumpleaños? When is your birthday?



Grammar

- Infinitive verbs are verbs in their base form
- In Spanish the verb endings change so we know who we are talking about

Masculine and feminine
Remember that adjectives which end in O in the masculine form end in A in the feminine form

Tener	To have
Tengo	I have
tienes	You have
Tiene	He/she has

Ser	To be
Soy	I am
Eres	You are
es	He/she is

Llamarse	To be called
Me llamo	I am called
Te llamas	You are called
Se llama	He/she is called

Year 7 sub unit 4 sentence builder

Vivo en… I live in Leicester Madrid Barcelona Granada	**Está cerca de la costa** It's near to the coast **Está lejos del centro** It's far from the centre **Es muy tranquilo** It's very quiet **Hay mucho que hacer** There is lots to do	**En mi ciudad hay…** In my city there is	**un castillo** a castle **un estadio** a stadium **un mercado** a market **un museo** a museum **un parque** a park **una piscina** a pool **una plaza** a square **una tienda** a shop **una Universidad** a university **una playa** a breach **un polideportivo** a leisure centre **un restaurante** a restuarant **un centro comercial** a shopping centre	**Me gusta mucho vivir en…** I really like living in… **No me gusta nada vivir en…** I really don't like living in… Leicester Madrid Barcelona Granada	Porque es Dado que es	**bonito** -Pretty **antiguo -** Old **grande-** Big **pequeño** - Small **aburrido** - Boring **interesante -** Interesting **ruidoso -** Noisy **sucio -** dirty **industrial -** Industrial **tranquilo** Quiet/ calm **histórico** -historic **Turístico** - touristic

Year 7 sub unit 4 knowledge organiser

A la derecha	on the right
A la izquierda	on the left
Sigue todo recto	go straight on
Gira a la izquerda	turn left
gira a la derecha	turn right
Tome la primera/segunda/tercera calle a la derecha	take the first/ second/ third Street on the right
Cruce la plaza	cross the square
Pase el puente/los semáforos	pass the bridge/ traffic lights
Sube/ baja la calle	go up / down the street

Year 7 universals

Y – and
Pero – but
También – also
Sin embargo – however

Pienso que- I think that
Creo que – I believe that
En mi opinión – in my opinion

es	it is (characteristic)
está	it is (location)
tiene	it has
hay	there is / there are

Compatatives

Más_____ que – more_____ than
Eg. Má grande que – bigger than

Menos _____que – less_____ than
Menos bonito que – less beautiful as

Tan_____ como – as _____ as
Tan histórico que - As historic as

P2 Infinity
Knowledge organiser

Activate
Question • Progress • Succeed

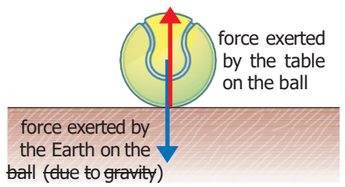
What is a force?

- 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

---

- 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

---

- **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

---

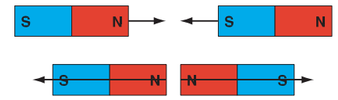
- **Weight** is the downward force caused by gravity acting upon the mass of an object, it is measured in Newtons (N)
- **Mass** is the amount of matter within an object, whereas weight is the downward force of the object, we measure mass in **kilograms**
- We calculate weight with the equation:

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

- 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**

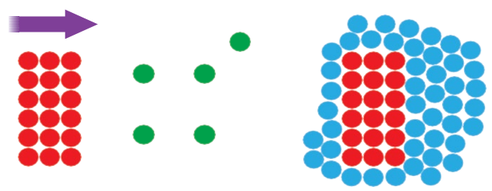
- When the two forces acting on an object are not the same size, we say that the forces are **unbalanced**
- When forces are **unbalanced**, the object will either be in **acceleration** or **deceleration**
- The **resultant force** is the difference between the two unbalanced forces

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

---

- 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)



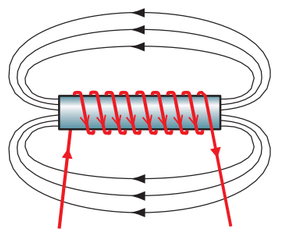
A solid moves through a gas.

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
Question • Progress • Succeed

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

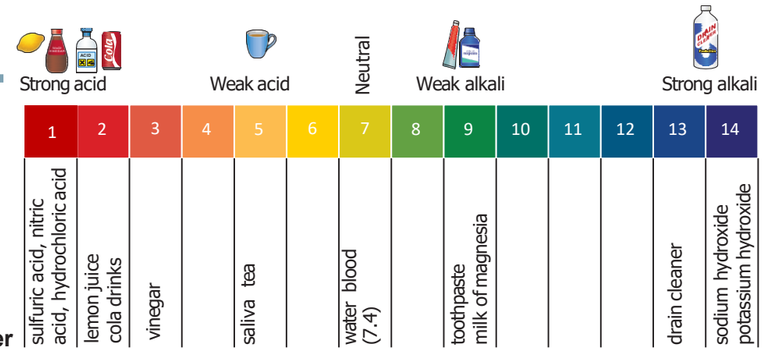
Acids and alkalis

- **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**

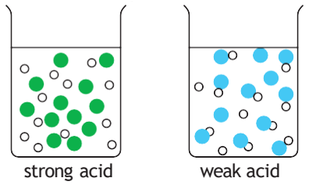
- If the solution has a pH value of 1–6 it is **acidic**
- If the solution has a pH value of 8–14 it is **alkaline**
- If the solution has a pH value of 7 it is known as **neutral**

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



Acid strength

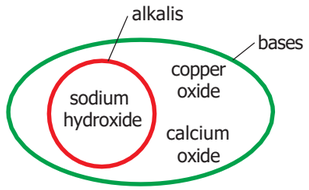
- The strength of an acid depends on how much of the acid has broken apart when it has dissolved in water
- Hydrogen chloride dissolves in water to form hydrochloric acid, this is a **strong acid** as all of the particles split up
- A **weak acid** will have particles that do not all split up



- 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

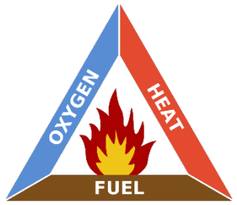
magnesium + hydrochloric acid → magnesium chloride + hydrogen

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

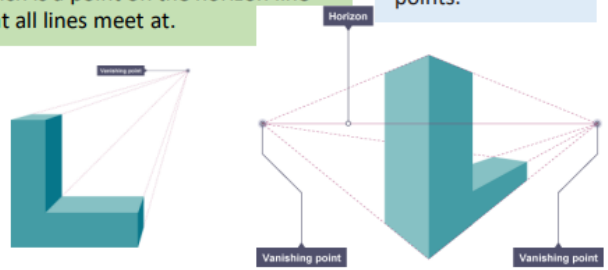
Make sure you can write definitions for these key terms.

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**

Year 7 Resistant Materials Knowledge Organiser

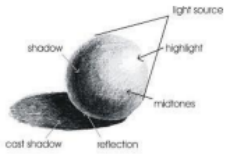
Single-point perspective - This shows an object from the front in a realistic way as it gets smaller going into the distance. The front view goes back towards a **vanishing point**, which is a point on the horizon line that all lines meet at.

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

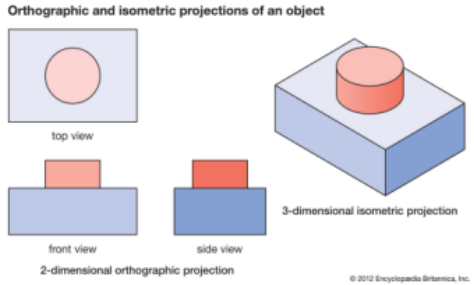


Rendering
Creating the illusion of light , tone and texture using graphic materials. Creating the illusion that an object is made from a particular material.

3 Tone shading

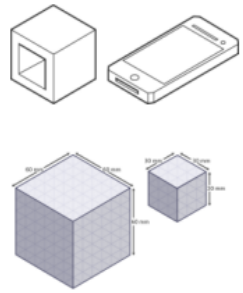


Orthographic Projection
They are used to show an object from every angle to help manufacturers plan production. Starting with a front view of a product, **construction lines** show where areas join and are used to draw a side and plan (top) view, ensuring that the drawing is accurate from all angles.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

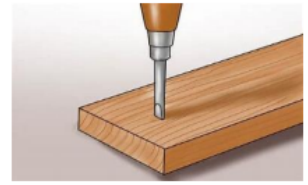


Personal protective equipment (PPE)
- Apron
- Leather gloves
- Goggles
- Sturdy shoes

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.

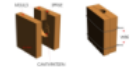
Timbers

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

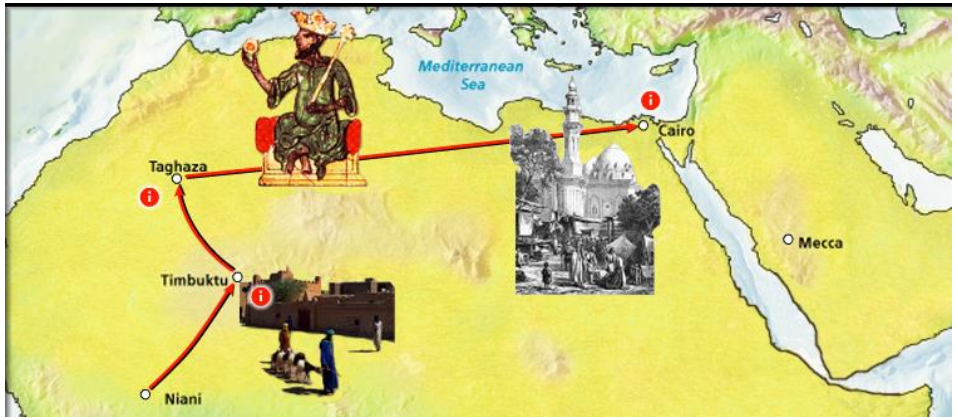


Computer aided design (CAD) now has the capability to design new products in 3D, visualise them in a variety of materials and send images around the world for collaboration and consultation.

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

AFRICAN CIVILISATIONS - KNOWLEDGE ORGANISER

Mansa Musa's pilgrimage to Mecca - 1324



The Kingdom of Benin

Civilisation	A society that has developed certain features such as economic, military, political, religious, social, artistic and scientific.	
Ancient Egypt	The civilization of ancient Egypt lasted for over three thousand years, starting around 3,000 BC. The rulers of Ancient Egypt, known as Pharaohs, were regarded as gods on earth. (North-eastern Africa)	**Key Fact:** They were one of the first civilisations to invent writing.
The Kingdom of Benin	Until the late 19th century, the Kingdom of Benin was one of the major powers in West Africa. The ruler was known as the Oba, who lived in beautiful palaces with shining brass. (West Africa)	**Key Fact:** People believed that brass had the power to drive away evil.
Kilwa	The former Islamic city state. In the 10th Century it became one of the most active commercial centres on the east coast of Africa. It was held briefly by the Portuguese (1505-12), it thereafter gradually declined in importance and was finally abandoned. (East Africa)	**Key Fact** A massive palace was constructed in the 14th C with 100 rooms and an octagonal swimming pool.
Empire of Ghana	Medieval trading empire. Ruled between 100 to 1100 AD. The Empire first formed when a number of tribes of the Sonike people were united under their first king, Dinga Cisse. "Ghana" was the word that the Sonike people used for their king, it meant "warrior king." The main source of wealth was iron and gold. (West Africa)	**Key Fact** Iron smiths were considered magicians because they worked with fire and earth to create iron.
Mansa Musa	The 14th Century Emperor of the Mali Empire. He is considered the richest man that ever lived. Most of his wealth came from gold and salt. He was a devout Muslim and went to Mecca in 1324. He took with him 60,000 people, 21,000 kilograms of gold and 80 camels. (West Africa)	**Key Fact** During his pilgrimage to Mecca, Mansa Musa gave away so much gold, the value of gold fell
Chimurenga	In 1896-97, the Zimbabwean tribes united to fight against British rule. The British Army were called in to defeat the tribes. A 2nd Chimurenga started in the 1960s and lasted until the removal of the British in the 1980s. (Southern Africa)	**Key Fact** The first Chimurenga is now celebrated as Zimbabwe's First War of Independence

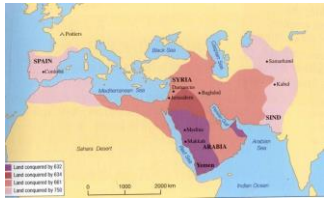
TIMELINE OF MAJOR EVENTS

3100 BC – 30 BC Ancient Egypt	**100 AD** – Kingdom of Ghana begins to rise. It lasted until 1100 AD.	**900 AD** – Kingdom of Benin began	**1100 AD** – Great Zimbabwe city founded. The period of prosperity lasted until the mid-15th Century.	**1324 AD** – Mansa Musa's pilgrimage to Mecca	**1500's AD** – The Atlantic Slave trade began	**1875 AD** – Slavery legally ended in West Africa.	**1881 AD –** Scramble for Africa began	**1900 AD** – Britain ruled over 30% of Africa's population.

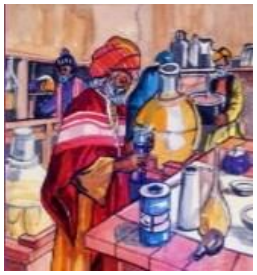
The Islamic Golden Age Knowledge Organiser

Key Information

In 726, the newly founded capital of Baghdad became the capital of the Muslim world.



- Islamic scholars and inventors adopted the Hindi symbol for zero and style of numerals (1, 2, 3, 4, 5, etc.) which we still use today
- Until 1258, Baghdad was the world centre of culture and learning, with the period being known as the Golden Age of Islam
- After the Prophet Muhammad's death some Arab countries became more united not enemies. The Muslim armies were very motivated. Their belief in the Prophet Muhammad gave them courage



<u>The House of Wisdom</u>

- The place where scholars were invited to record their knowledge in Arabic
- All scholars were invited: Muslims, Jews and Christians
- Knowledge of medicine, astrology and science were the main areas studied and shared
- The knowledge was very advanced for its time, with cures for many serious ailments being discovered

Subject Specific Vocabulary

Baghdad	Baghdad today is the capital city of Iraq, and was the capital of the Muslim world.
Civilisation	A civilisation is a human society with its own social organisation and culture. Ancient civilisation refers specifically to the first settled and stable communities that became the basis for later states, nations, and empires.
Scholar	A highly educated person.
Islam	The word 'Islam' in Arabic means submission to the will of God. Followers of Islam are called Muslims. Muslims believe there is one true God Allah (the Arabic word for God).
Golden Age	A golden age is a period of time during which a very high level of achievement is reached in a particular field of activity, especially in art or literature.
Empire	An empire is the collective name for a group of countries ruled by a single person, government or country.
Cordoba	Córdoba was the capital of the Caliphate of Cordoba, an Islamic empire in the Middle Ages, when the city was the biggest in Europe, with 250,000 people.
The House of Wisdom	A library or university where scholars from all over the world were invited to study.
Astronomy	Astronomy is the study of outer space and all of the objects and bodies outside of the Earth's atmosphere, like stars, planets and comets.
Calligraphy	Calligraphy is the art of writing. The word is from the Greek language and means "beautiful writing". In the west, this was an interest in decorating words on the page.

5A) Où vas-tu en vacances?		Comment voyages-tu?		Avec qui pars-tu?		Où loges-tu?	
Je vais *(I go)*	en France *(to France)* en Belgique *(to Belgium)* en Suisse *(to Switzerland)* en Pologne *(to Poland)* en Russie *(to Russia)* en Espagne *(to Spain)* en Algérie *(to Algeria)* en Allemagne *(to Germany)* en Angleterre *(to England)* en Autriche *(to Austria)* au Danemark *(to Denmark)* au Pakistan *(to Pakistan)* au Pays de Galles *(to Wales)* au Royaume-Uni *(to Great Britain)* aux États-Unis *(to the United States)* aux Pays-Bas *(to the Netherlands)*	je voyage *(I travel)*	en avion *(by plane)* en train *(by train)* en voiture *(by car)* en bateau *(by boat)* en car *(by coach)* à vélo *(by bicycle)*	je pars avec *(I leave with)*	mes copains *(my friends)* ma famille *(my family)* mes grands-parents *(my grandparents)* mon collège *(my school)* mon/ma partenaire *(my partner)* seul(e) *(alone)*	et je loge *(and I stay)*	dans un petit hôtel *(in a little hotel)* dans un grand hôtel *(in a big hotel)* dans un hôtel de luxe *(in a luxury hotel)* dans un camping *(in a campsite)* dans une caravane *(in a caravan)* dans une auberge de jeunesse *(in a youth hostel)*

UNIT 17
Describing my house

J'habite dans une *[I live in a]*	**jolie** *[pretty]* **grande** *[big]* **petite** *[small]* **vieille** *[old]*	**maison**	**dans la banlieue** *[on the outskirts]* **à la campagne** *[in the countryside]* **au/en centre-ville** *[in the city centre]*
J'habite dans un *[I live in a]*	**joli** *[beautiful]* **grand** *[big]* **petit** *[small]* **vieil** *[old]*	**appartement**	**sur la côte** *[on the coast]* **à la montagne** *[in the mountain]* **dans un quartier résidentiel** *[in a residential neighbourhood]*

Dans ma maison, il y a quatre/cinq/six pièces
[in my house there are 4/5/6 rooms]

Ma pièce favorite est…
[my favourite room is]

J'aime me reposer dans…
[I like to relax in]

J'aime travailler dans…
[I like to work in]

Je me douche toujours dans…
[I always shower in]

ma chambre
[my bedroom]

la cuisine
[the kitchen]

le jardin
[the garden]

la salle de bain *[the bathroom]*

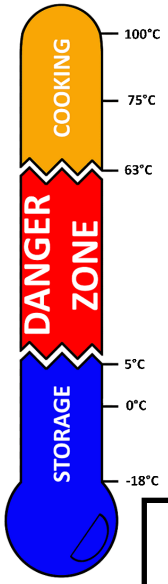
la salle à manger
[the dining room]

le salon
[the living room]

la terrasse *[the terrace]*

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/

Get active.

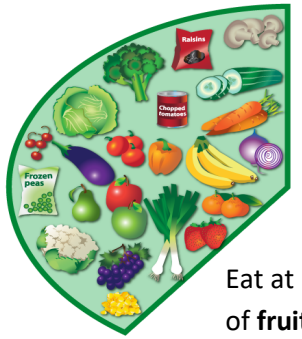
https://www.nhs.uk/change4life/activities/sports-and-activities
https://www.youtube.com/watch?v=k5Y9D37KmJo

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

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/

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**.

Year 7 – spring term focus: Intro to Victorians

Queen Victoria reigned from 1837 to 1901.

There was a strong religious following at the time – the whole country was Christian and attended church on a Sunday.

People tended to have large families in the Victorian period; Victoria had 9 children herself with the "love of her life", Albert, whom she married when she was 20 years old.

There were many issues for poorer people living in Victorian Britain: **unsanitary, unclean and unhygienic housing – often overcrowded. Very low wages. No access to varied food, hence poor diet. Lack of employment laws or support for people – when old(er) they were sacked.**

Key terminology:

Industrial revolution
Romanticism
Poor Law
Charles Dickens
Poverty
Disparity
Child labour
Class system

Education was not free for all in the Victorian period; only boys of middle class families would attend school, and sometimes only the first born son would attend. Girls and women had far less rights and access to education and jobs in the 1800s.

Because people were so poor, and there were no laws against, young children were sent to work. This was known as child labour. Children would be used to do jobs where smaller bodies worked better than bulky adult ones – like fitting up chimneys or on a production line (so more could fit in and complete more work).

The Signal Man by Charles Dickens

1st person narrative –
Where the book uses "I" and "me", as though the speaker is actually in the story, explaining and describing events as they happen.

Horror is a literary genre that attempts to make the reader feel fear or disgust in its audience for entertainment purposes. Horror books might include dark subject matter and may deal with transgressive topics or themes. Broad elements include monsters, apocalyptic events, and religious or folk beliefs.

VOCABULARY

Tarpaulin
Waterproofed canvas
Ruminate
reflect deeply on a subject
Foreshorten
shorten lines in a drawing so as to create an illusion of depth
Manual Labour
Work done with the hands
Fits and starts
repeated bursts of activity
Coincidence
the property of two things happening at the same time
a small cut
Agonised
expressing pain or agony
Rarity
something unusual -- perhaps worthy of collecting
Saturnine
bitter or scornful
Apprise
inform somebody of something
Natural Philosophy
the science of matter and energy and their interactions
furled
rolled up and secured
Condense
cause a gas or vapor to change into a liquid
Vigilant
carefully observant or attentive
Prolongation
the act of prolonging something

Agonise
suffer agony or anguish
Spectre
a ghostly appearing figure
Gesticulate
show, express, or direct through movement
Notched
notched like a saw with teeth pointing toward the apex
Transgressive
going beyond acceptable boundaries of taste, convention, or the law:

Mystery is a fiction genre where the nature of an event, usually a murder or other crime, remains mysterious until the end of the story. Often within a closed circle of suspects, each suspect is usually provided with a credible motive and a reasonable opportunity for committing the crime.

Computing - Programming Part 1

A computer will take inputs (this might be automatic or via human input), process the input and then produce the output. For example when you use a keyboard and mouse, the mouse is used to input data into the computer to be processed and the output is visible on the computer monitor.

Variables are used to store data for use in a program. They can store lots of different types of data such as names and scores.

So set variable score to equal 0

If I score a goal then increase variable by 1

Operators

Comparison operators allow us to compare using =, <, >,

Logical operators use AND, OR, NOT

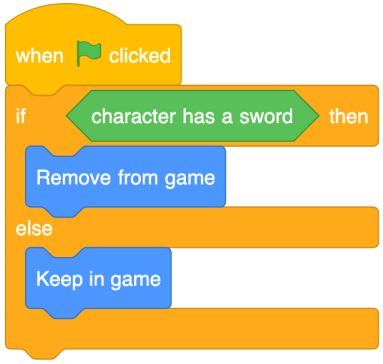
A **selection** statement in programming allows a computer to **evaluate** an **expression** to **'true'** or **'false'** and then perform an action depending on the outcome.

If 'character has a sword'' :is true:

Remove from game

Else:

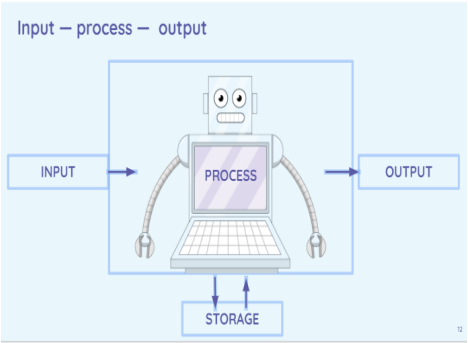
Keep in the game



Debugging is the process of finding an error in your code and taking steps to fix the problem.

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"



Scratch is a block based programming language. We can use predefined code in blocks to create algorithms.

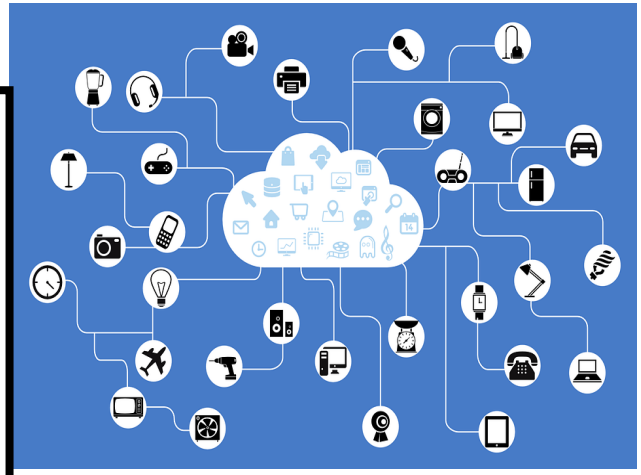
Key Words	
abstraction	Identify the important aspects to start with
algorithm	Precise sequence of instructions
Computational thinking	Solving problems with or without a computer
debugging	Looking at where a program might have errors or can be improved
blocks	Scratch bricks that we can use to code algorithms
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 (eg if …. else)
sequence	Running instructions in order
variable	Data being stored by the computer

We use algorithms in every day life, for 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.

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.

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.

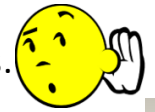
ART & DESIGN KNOWLEDGE ORGANISER

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.

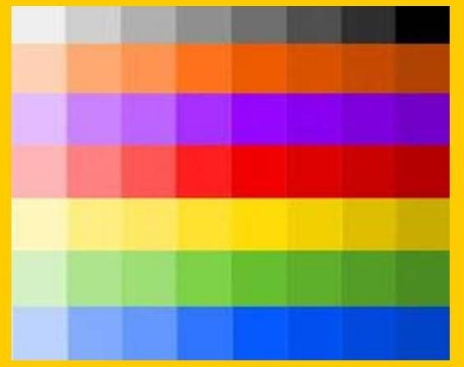
FORMAL ELEMENTS

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

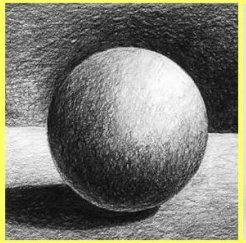


SHAPE & FORM

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



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.

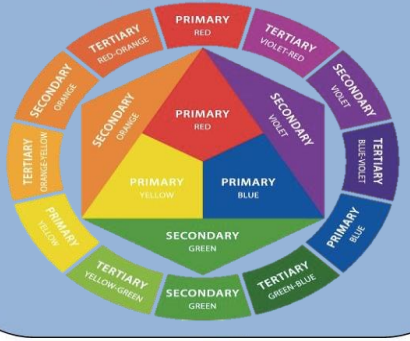
Actual Texture

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.