

KNOWLEDGE ORGANISER



Summer Term 2024
Year 10



Name: _____ **Form:** _____

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How to use your Knowledge Organiser for Home Learning

- Knowledge Banks contain core knowledge that you must know
- It will help you retrieve what you learn in lessons so that you remember it in the long term
- You will use your Knowledge Bank to aid your home learning

For homework:

- You will need to create a home learning timetable so you can organise which subject you do on which days
- You will be asked to use a specific section of your Knowledge Bank to aid home learning
- Your home learning will involve retrieval (prior learning) and flipped learning (research-based task for topics not yet learnt)
- The length of home learning will be different depending on your subject, this information is in a different document
- You must write the subject and date in your homework book - if using
- You need to underline the subject and title as per lessons
- There will be rewards for excellent work and sanctions for work not complete
- your home learning will be set every Monday on ClassCharts
- Your homework will be set **every Monday** on Class Charts
- Completing your home learning is **YOUR** responsibility



Home Learning – Year 10 & 11 GCSEs Summer Term

SUBJECT	HOME LEARNING TIME	HOME LEARNING ACTIVITIES	WHERE TO COMPLETE e.g. home learning books, google classroom, subject home learning books, Seneca	HOW IT WILL BE MARKED
English	60 mins per week	Students will build on & extend topics currently studied by completing GCSE questions. This will be interspersed with GCSE essay questions enabling students to recall previous material studied.	Students may complete and submit on the Google classroom or if they prefer may complete by hand and submit to the class teacher	General feedback will be given.
Maths	60 mins per week	Retrieval: Pupils will recall work completed that week, plus other work in the year in consolidations tasks Flipped learning: Pupils will build on, extend work currently completed. This will feed into 'insights' given back to the teacher to feed into starter tasks Past Paper will be given close to PPEs and summer exams.	Sparx website On paper for past papers	On the website In class for past papers
Science	1 hour per week	SENECA set by class teacher Revision of year 9/10 topics from revision guide	On SENECA Completed in flash cards	Marked by SENECA and viewed for misconceptions by class teacher for Closing the gap
Geography	45 mins per week - plus exam/assessment revision	Seneca, revision activities, exam question practice, completion of case studies.	Seneca / Google classroom / revision materials produced.	Seneca and Google classroom is self marked. Exam question practice teacher/student marked.

History	30-60 Minutes per week	Seneca assignments for retrieval/consolidation. Research tasks, GCSE questions (4 Marks)	Seneca, Google Classroom, Google Docs	Seneca is self marking, visual checks of assignments completed, teacher marked GCSE questions with feedback.
Art	Weekly - 1 Hour	Home learning will consist of practical tasks focusing on retrieval and flipped knowledge linked to the component of work. Revision strategies will be included in home learning to support assessments.	Art - on chromebooks or on paper to then be added to Art Portfolios.	Checked and marked in line with the component of work. Praise points awarded.
Food	30 mins per week	Year 10 - H&C Personal Review of dishes/retrieval/practical skills development Flipped learning - Research tasks for building knowledge for forthcoming lessons. Pupils to watch videos Year 11 - Food Tech Revision questions and research	Classcharts	Collected, Checked and marked by the class teacher. Praise Points awarded
French & Spanish	20 minutes per week	Vocab learning based on a particular section of their Knowledge Organiser Additional tasks such as Speaking question revision, listening/reading paper practise may also be requested as and when the teacher deems appropriate	Knowledge of learned vocab assessed in class	Corrected in class and PP added during the week

Drama	45 mins - 1 hour per week	essay questions, keywords, research, line learning, live performance analysis, character work, technical and design planning , devising logs, exam revision	Complete on Google classroom and Word Wall Work will be set on Class Charts	Teacher/self/peer assessment. Exam style questions marked.
Music	30 mins per week	Practice on instrument/composition/production skill sets.	On instruments/DAWs whilst completing rehearsal/production/composition logs.	Self-reflection of rehearsal effectiveness/composition development/production development.
Ethics	30 min P/w	Seneca, Making retrieval quizzes, Cornell notes .	Seneca and Google classroom	Teacher/ online
Social Sciences	45 minutes per week	Revision activities. Retrieval activities. Making online revision resources. Yr11 - practice exam questions on paper	Google Classroom. Yr11 - printed exam questions.	Self marked or checked via Google Classroom. Yr11 will have teacher marked practice exam questions.
Computer Science	30 minutes per week	Year 10 - pre-reading and questions for future topics. Retrieval of previously learnt topics. Year 11 - up until half term - pre-reading and questions for future topics. Retrieval of previously learnt topics. After half term - revision of previously learnt topics.	Seneca and Smart Revise.	Self marked and checked by the teacher. Praise points awarded for completed work.
Business and Enterprise	30 minutes a fortnight plus end of topic revision	Revision activities and exam practice	Seneca	Seneca is self marking
Sports Studies	45 minutes	Revision activities and Retrieval quizzes set to challenge weekly exam content retention	Google Classroom via use of Google Forms	Self marked or checked via Google Classroom.
Construction				
Engineering				

ENGLISH

KS4 Macbeth Knowledge Organiser

Events

Context

Act 1	<ol style="list-style-type: none"> The witches meet on the heath Macbeth and Banquo have fought and won a battle The witches meet Macbeth and Banquo. Macbeth becomes Thane of Cawdor Duncan meets with Macbeth and plans to meet him at the castle. Lady Macbeth's letter. Lady Macbeth convinces Macbeth to kill King Duncan. Duncan arrives at Macbeth's castle Macbeth's soliloquy. Macbeth tells Lady Macbeth he will not murder Duncan. She convinces him to go ahead with the murder. 	The Great Chain of Being	<ol style="list-style-type: none"> God is at the top of the Great Chain of Being Kings were chosen by 'divine right.' God chose the king. Males were above females. People were expected to respect their position in the chain and, if they did so, would be rewarded in heaven. 	
		King James I	<ol style="list-style-type: none"> King of Scotland from 1567 - 1625 King James was fascinated by the supernatural and wrote a book entitled 'Demonology' in 1597 King James's ancestor, Banquo, is made a hero in the play. King James had survived an assassination attempt. 	
Act 2	<ol style="list-style-type: none"> Banquo and Macbeth talk briefly about the witches. Macbeth sees a dagger in front of him. Macbeth murders King Duncan. Macbeth's guilt is apparent. Lady Macbeth feels no guilt. Duncan's dead body is discovered. Macbeth becomes king. 	Witches and the supernatural	<ol style="list-style-type: none"> Christians believed witches to be the agents of Satan. In 1604, it was a capital offence to be a witch. Association with a witch led to hanging, burning or drowning. It was believed, witches could see into the future, change the weather and could call up the dead. 	
Act 3	<ol style="list-style-type: none"> Macbeth questions Banquo. He plans his murder. Lady Macbeth and Macbeth talk. Banquo is murdered. The banquet and Banquo's ghost. Hecate Lennox shares his suspicions about Macbeth. 	Adam and Eve	<ol style="list-style-type: none"> A creation story taken from the Jewish and Christian tradition, also referred to in the Quran. Adam and Eve are put into the garden of Eden but told not to eat from the Tree of Knowledge. A serpent tells Eve she will not be punished if she does so. She is being deceived. Eve eats the fruit and gives some to Adam. They are banished from the Garden of Eden as a result. 	
Act 4	<ol style="list-style-type: none"> The witches share three prophecies as well as sharing a vision of Banquo. Macbeth has Macduff's wife and children murdered. Malcolm puts Macduff to the test. 	The role of women	<ol style="list-style-type: none"> Society was patriarchal. 	
Act 5	<ol style="list-style-type: none"> Lady Macbeth's sleepwalking. The rebels Macbeth is fearless. Great Birnam wood rises Lady Macbeth is dead 	<ol style="list-style-type: none"> Malcolm prepares for battle Macbeth kills young Siward Macduff kills Macbeth. Malcolm is crowned king. 	War of the Roses	<ol style="list-style-type: none"> War of the Roses happened between the years of 1455 and 1487. Massive disorder of the War of the Roses with 105,000 casualties. Afterwards, civil disorder was seen as the ultimate disaster and an ungodly state.
			The Gunpowder plot	<ol style="list-style-type: none"> A failed attempt to blow up England's King James I and the parliament Attempt happened on November 5th, 1605.

Characters

Features of form

Themes

Motifs

1. Macbeth	courageous, confident, indecisive, submissive, disloyal, tyrannical, deceiver, ambitious, remorseful, tormented, heartless, cunning, egocentric	1. Tragedy	Tragic events are ones that deal with suffering, loss and death. Concerned with the downfall of one, usually very important or high status character. A unity in that it deals with one main plot, in a single location or place.	1. Ambition	1. Nature
2. Lady Macbeth	Ambitious, commanding, conniving, heartless, malicious, manipulative, ruthless, sinister, guilty, paranoid	2. Stage directions	Instructions to an actor or director on how to perform certain lines.	2. Fate and free will	2. Sleep
		3. Dialogue	A conversation between two or more people.	3. Supernatural	3. Light and dark
		4. Soliloquy	When a character speaks their thoughts aloud directly to an audience and without the presence of other characters.	4. Order and chaos	4. Dreams
3. King Duncan	Fair, respected, naïve, trusting, jovial, optimistic, meek, moral	5. Aside	A remark in a play that is intended to be heard by the audience but is supposed to be unheard by the other characters.	5. Good and evil	5. Blood
4. Banquo	Brave, loyal, diplomatic, virtuous, friendly, astute, shrewd	6. Dramatic irony	A situation, or the irony, arising from a situation in which the audience has a fuller knowledge of what is happening than a character.	6. Revenge	6. Children
		7. Peripeteias	A sudden reversal of fortune.	7. Masculinity and femininity	
				8. Appearance and reality	
					5

ENGLISH

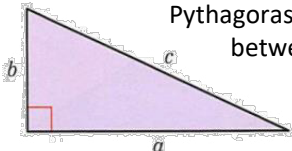
5. The witches	Trouble-making, prophetic, evil, creepy, spooky, eerie	8. Anagnorisis	A moment in a play when a character makes a critical discovery.		
6. Macduff	Emotional, courageous, strong-willed, righteous, justice-oriented, focused, deliberate, heroic, responsive, intuitive	9. Hamartia	A fatal flaw leading to the downfall of a tragic hero or heroine.		
		10. Rhyme	A correspondence of sound between words of the ending of words, especially at the end of lines of poetry. The witches often speak in rhyme adding to the supernatural effect of creating spells.		
		11. Hubris	Excessive pride or self-confidence. Macbeth is overfulled with ambition and arrogance. He allows his hubris to think he would be able to kill the king without penalty.		
Key Words	soliloquy	P r o p h e c y	Sceptical	Chaos	Malevolent
Imperative	Ambition	R u m i n a t i o n	Regicide	Surreal	Fate
Pall	Manipulative	M e r c i l e s s	Loyalty	Thane	Henchmen
Usurp	Tragedy	H e i n o u s	Superstitious	Valiant	Tyrant

Maths Year 10

Spring - Foundation

Right angled triangles

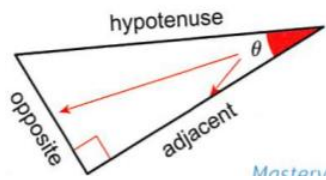
in a right-angled triangle the **hypotenuse** is the longest side and is opposite the right angle



Pythagoras' theorem shows the relationship between lengths of the three sides of a right-angled triangle

A triangle with sides a, b, and c, where c is the longest side is right-angled only if $a^2 + b^2 = c^2$

in a right-angled triangle the side opposite the angle θ is called the **opposite**. The side next to the angle θ is called the **adjacent**.



The **sine** of an angle θ is the ratio of the opposite side to the hypotenuse. The sine of angle is written as $\sin \theta$

The **cosine** of an angle θ is the ratio of the adjacent side to the hypotenuse. The cosine of angle is written as $\cos \theta$

The **tangent** of an angle θ is the ratio of the opposite side to the adjacent side. The tangent of angle is written as $\tan \theta$

You can use \sin^{-1} , \cos^{-1} , \tan^{-1} on your calculator to find an angle when you know its sin, cos or tan

The **angle of elevation** is the angle measured upwards from the horizontal. The **angle of depression** is the angle measured downwards from the horizontal.

The sine, cosine and tangent of some angles may be written exactly

	30°	45°	60°	90°
sin	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
cos	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
tan	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	

Probability

The **probability** of an event happening is a number between 0 and 1. If an event is **certain**, the **probability** is 1 ($P = 1$). If an event is **impossible**, **probability** is 0, ($P = 0$)

Events are **mutually exclusive** when they cannot happen at the same time. Events are **exhaustive** if they include all possible outcomes. The probabilities of an **exhaustive set of mutually exclusive** events sum to 1

Equally likely outcomes have the same probability of happening. The probability that an **equally likely** event will happen is $P = \frac{\text{number of successful outcomes}}{\text{total number of possible outcomes}}$

If the probability of an event happening is P, the probability of it not happening is $1 - P$

A **sample space diagram** shows all the possible outcomes for one or more events. You can use it to find a **theoretical probability**.

Estimated probability is also called **experimental probability**. You can estimate the probability of an event from the results of an experiment or survey:
 $\text{relative frequency} = \frac{\text{number of successful trials}}{\text{total number of trials}}$

A larger number of trials gives a more accurate estimate of probability.

$\text{Predicted number of outcomes} = \text{probability} \times \text{number of trials}$.

Two events are **independent** when the results of one do not affect the results of the other. When the outcome of one event changes the possible outcomes of the next event, the two events are **not independent**.

A set is a list of things that share certain characteristics

The elements of two (or more) sets can be shown together in a Venn diagram. Curly brackets $\{ \}$ show a set of values.

$A \cap B$ Means A intersection B. This is all the elements that are in A and in B

$A \cup B$ Means A union B. This is all the elements that are in A or B. A' means the elements *not* in A

Multiplicative reasoning

The original amount is always 100%. If the amount is **increased** the new amount will be more than 100%. If the amount is **decreased** the new amount will be less than 100%.

You can calculate a **percentage change** using the formula.

$$\text{percentage change} = \frac{\text{actual change}}{\text{original amount}} \times 100$$

Density is a **compound measure**. It is the **mass** of substance contained in a certain **volume**. It is usually measured in grams per cubic centimetre (g/cm^3)

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

Pressure is a **compound measure**. It is the **force** applied over an area. It is usually measured in newtons (N) per square metre (N/m^2)

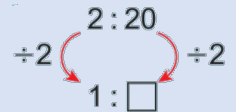
$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

Banks and building societies pay **compound interest**. At the end of the first year, interest is paid on the money in the account. The interest is added to the amount in the account. At the end of the second year, interest is paid on the original amount in the account *and* on the interest earned in the first year, and so on...

$y \propto x$ means 'y' is proportional to x. When $y \propto x$ then $y = kx$, where k is the constant of proportionality

$X \propto \frac{1}{Y}$ means X and Y are in inverse proportion. This means $XY = k$ (constant)

You can make the numbers in a ratio as small as possible by **simplifying**. You **simplify** a ratio by dividing the numbers in the ratio by the **highest common factor** (HCF)



Write the proportion as a fraction.

$$\frac{9}{10} = \frac{\square}{100} = \square\%$$

You can compare **proportions** using **percentages**

Convert the fraction to a percentage.

Maths Year 10

Spring - Higher

Similarity and Congruence

Congruent triangles have exactly the same size and shape. Their angles are the same and **corresponding sides** are the same length

Two triangles are **congruent** when one of these conditions of congruence is true:

SSS: all three sides are equal

SAS: Two sides and the included angle are equal

AAS: Two angles and a corresponding side are equal

RHS: Right angle, hypotenuse and one other side are equal

Shapes are **similar** when one shape is an **enlargement** of the other. **Corresponding angles** are equal and **corresponding sides** are all in the same **ratio**

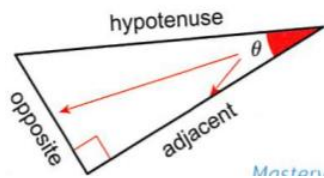
When a shape is **enlarged** by **linear scale factor** k , the area of the shape is enlarged by scale factor k^2

When a shape is **enlarged** by **linear scale factor** k , the volume is enlarged by scale factor k^3

More trigonometry

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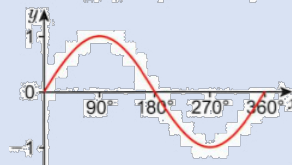
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The **sine rule** can be used in any triangle to calculate a missing side:

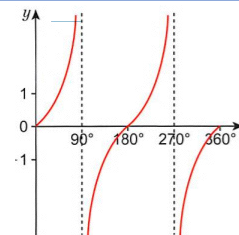
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

The **cosine rule** can be used in any triangle to calculate an unknown side: $a^2 = b^2 + c^2 - 2bccosA$

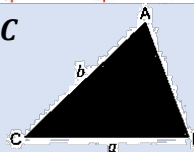
The **sine** graph repeats every 360 degrees in both directions



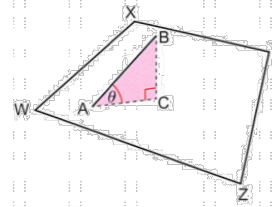
The **tangent** graph repeats every 180 degrees in both directions



The area of this triangle is $\frac{1}{2} ab \sin C$



A **plane** is a flat surface. In the diagram, BC is perpendicular to the plane WXYZ. Triangle ABC is in a plane perpendicular to the plane WXYZ



θ is the angle between the line AB and the plane WXYZ

The graph of $y = -f(-x)$ is a reflection of the graph of $y = f(x)$ in the x -axis and then the y -axis,

or vice versa. These two reflections are equivalent to a rotation of 180° about origin

Further Statistics

A **population** is the set of items that you are interested in. A **census** is a **survey** of the whole **population**. A **sample** is a smaller number of items from the **population**. A **sample** of at least 10% is considered good. In order to reduce **bias**, the **sample** must represent the whole **population**

A **population** may divide into groups such as age range or gender. These groups are called **strata (stratum)**. In a **stratified sample**, the number of people taken from each group is **proportional** to the group size.

A **cumulative frequency table** shows how many data values are less than or equal to the **upper class boundary** of each **data class**. A **cumulative frequency diagram** has data values on the x -axis and **cumulative frequency** on the y -axis

The **median** and **quartiles** can be estimated from the **cumulative frequency diagram**. For a set of n data values: the estimate from the **median** is the $\frac{n}{2}$ value.

The estimate for the **lower quartile (LQ)** is the $\frac{n}{4}$ value
The estimate for the **upper quartile (UP)** is the $\frac{3n}{4}$ value

The **interquartile range (IQR)** is $UQ - LQ$

A **box plot** (sometimes called a box – and – whisker diagram, displays a data set to show the **median** and **quartiles**. **Comparative box plots** are **box plots** for two different sets of data drawn on the same scale.

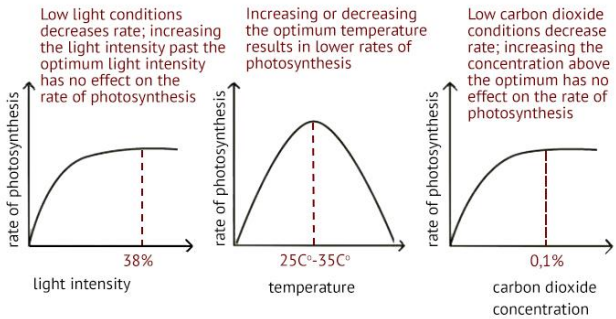
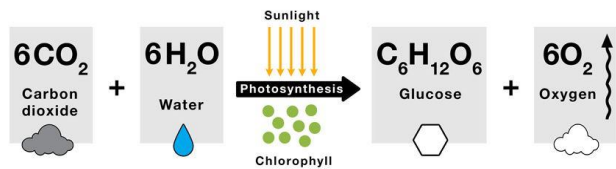
The interquartile range measures the spread of the middle 50% of the data. To describe a data set (or population) give a measure of average and a measure of spread. To compare data sets, compare a measure of average and a measure of spread.

The median and interquartile range are not affected by extreme values of **outliers**. When there are extreme values, the median and interquartile range should be used rather than the mean and range.

Year 10 Science Knowledge Bank - Summer Term (Biology)

Photosynthesis and limiting factors

Photosynthesis is the conversion of light and carbon dioxide into glucose and energy.

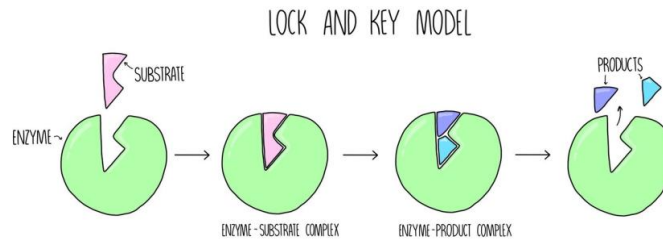


Diffusion, Osmosis and Active Transport

Process	Movement of	Conditions	Additional Requirements
Diffusion	Molecules or ions	High concentration to low concentration	Down a concentration gradient
Osmosis	Water molecules	High water potential to low water potential	Across a partially permeable membrane
Active Transport	Particles or substances	Low concentration to high (against the concentration gradient)	Needs Energy (1 ATP)

Enzymes and enzyme reactions

Enzymes play a vital role in the body, they are **biological catalysts** which speed up reactions however, they require set conditions to operate at their **optimum** level. Enzymes operate on a **lock and key model**, one enzyme for one reaction. Should an enzyme fall out of its set conditions, it is said to be **denatured** and will not work effectively.



Ecosystems

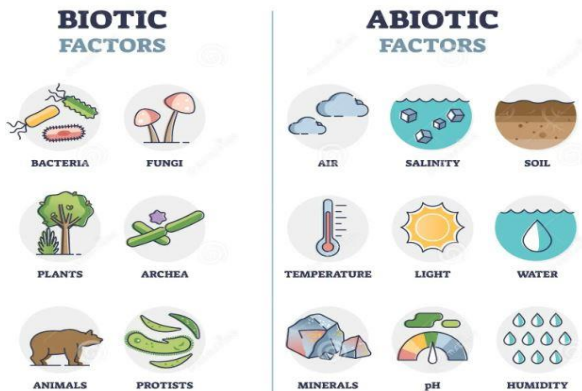
Ecosystems contain all the organisms that live within them, they are physical environments with a particular set of conditions (abiotic factors). The organisms within an ecosystem interact through predation and competition. An ecosystem can support itself without the influx of materials or other factors

Competition

All plants and algae in an ecosystem compete for light, space, water and minerals from the soil. Animals in an ecosystem compete for food, mates and their territory. Organisms which have more of these resources tend to be stronger and more likely to reproduce. Competition can be **interspecific** competition occurs between different species and **intraspecific** occurs between individuals of the same species.

Bioaccumulation occurs when toxins build up - or accumulate - in a food chain. The animals at the top of the food chain are affected most severely

Biotic and Abiotic Factors

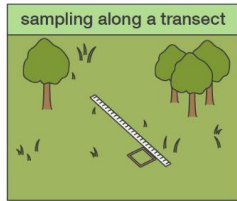
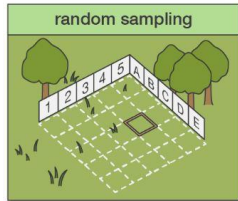


Year 10 Science Knowledge Bank - Summer Term (Biology)

Quadrat Sampling



Quadrats are square metal frames, they are placed on the ground to look at plants or slow moving animals.



Using quadrats, the following sampling can be used:

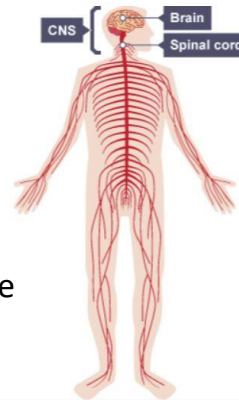
- 1 – **Number of an individual species** such as the number of daisies.
- 2 – **Species richness**: the number of different plant or animal species seen
- 3 – **Percentage cover**: the percentage of the quadrat area that is covered by one species (eg grass).

Quadrats can be used **randomly** or by using a **transect** and quadrats placed at **regular intervals**, this enables you to see how species change over a distance.

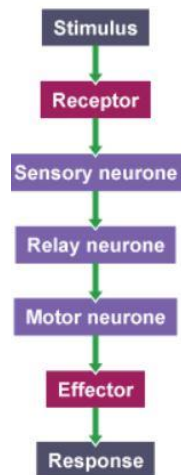
Nervous system and Nerves and Synapses

The nervous systems consists of:

- 1 – The **Central Nervous System (CNS)** this includes the brain and the spinal column.
- 2 – The **Peripheral Nervous System** – This includes nerve cells that carry information to or from the CNS.



Reflexes and the reflex arc

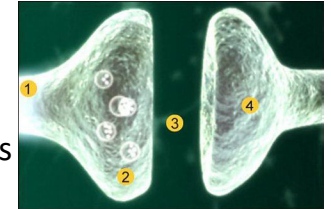


Reflexes are split into two categories, one that involves the brain and one that doesn't. Those that involve the brain. The **reflex arc doesn't involve** the brain and is a quick response in the body and are important to prevent you from hurting yourself. The reflex arc follows the process in the diagram next to this text.

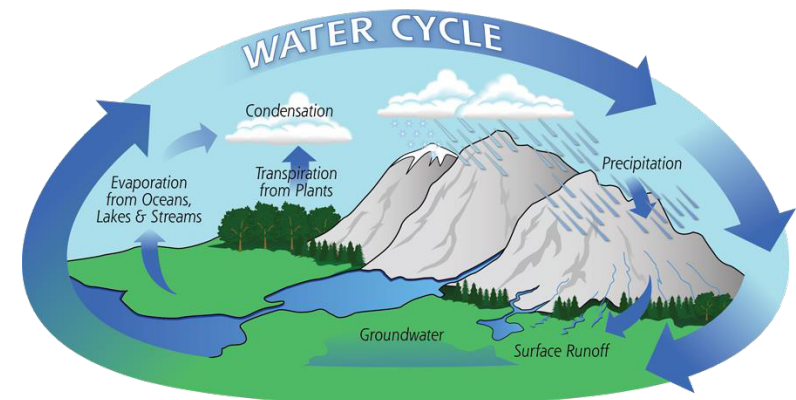
Synapses

Where two neurones meet there is a small gap, this is called a synapse.

- 1 – An electrical impulse travels along the first Axon.
- 2 – This causes the nerve ending of the neurone to release chemical messengers called neurotransmitters.
- 3 – These chemicals diffuse across the synapse and bind to a receptor on the second neurone.
- 4 – This stimulates the second neurone to transmit the electrical impulse.



Water Cycle



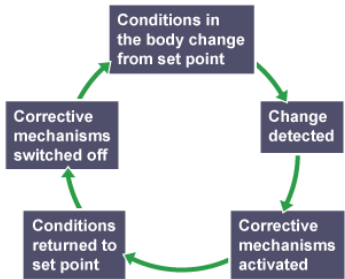
Year 10 Science Knowledge Bank - Summer Term (Biology)

Homeostasis

Homeostasis maintains optimal conditions for enzyme action in the body including the control of:

- 1 – Blood glucose concentration
- 2 – Body temperature
- 3 – Water balance

This is important as enzymes only operate in a narrow range of conditions such as temperature and pH.



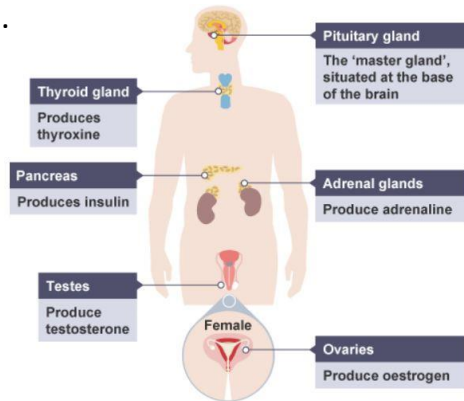
Negative feedback is when the body responds, for example when a hormone level rises or falls, the body control systems reduce it again.

Hormones in reproduction.

Hormone	Produced	Role
FSH (Follicle stimulating hormone)	Pituitary gland	Causes an egg to mature in an ovary.
Oestrogen	Ovaries	Stops FSH being produced (so that only one egg matures in a cycle)..
LH (luteinising hormone)	Pituitary gland	Triggers ovulation
Progesterone	Ovaries	Maintains the lining of the uterus during the middle part of the menstrual cycle.

Hormones

Hormones are chemicals produced in glands in the body and it is carried around the body in the bloodstream where it targets specific organs.

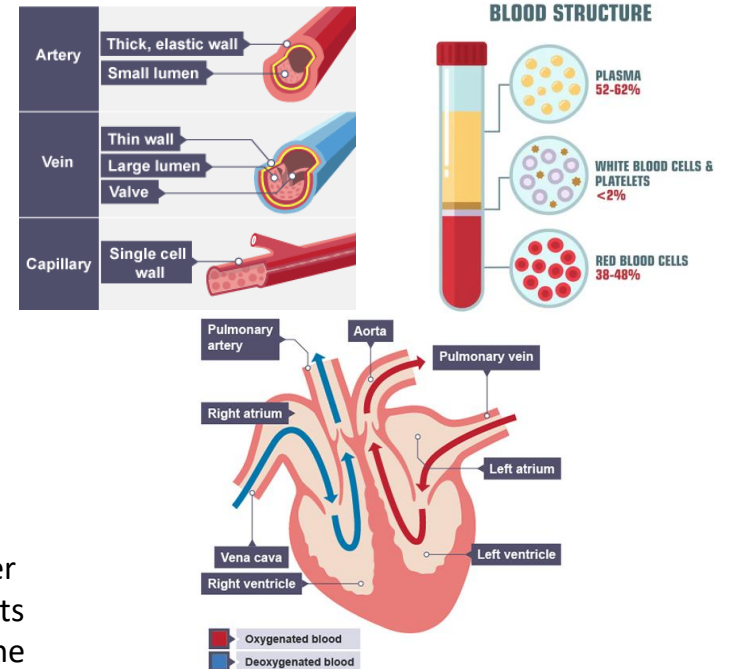


When compared to the nervous system, the endocrine system, it is important to remember that the endocrine system is slower and targets specific cells not muscles or secretions as in the nervous system.

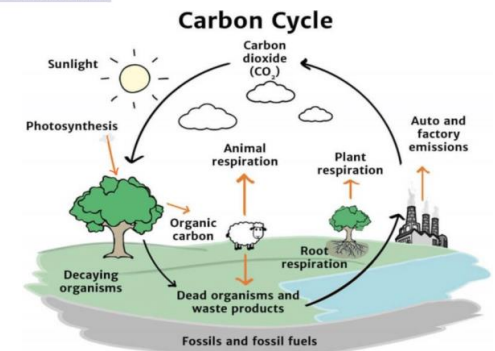
Diabetes

This is a condition where blood glucose levels remain too high, there are two types, Type 1 is when the pancreas doesn't produce enough insulin and is treated by insulin injections. Type 2 is caused when the bodies cells no longer respond to insulin and is caused by diet.

Blood, Blood vessels and the heart



Carbon Cycle





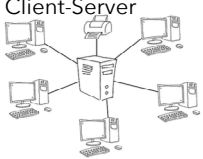
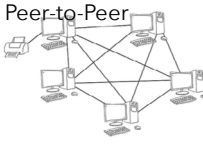
COMPUTER SCIENCE

Knowledge Organiser 4 : Networks and Network Topologies

1. Types of Networks	
Network	A set of connected computers and other devices (e.g. printers, phones, HomeKit devices) for the purpose of sharing resources
LAN	Local Area Network. Covers a small geographical area (a home, a school, etc.) The infrastructure is often owned by the individual / organisation
WAN	Wide Area Network. Covers a large geographical area. WANs are made up of LANs joined together. The infrastructure is often owned by a Telecoms or other company rather than the individual
Advantages to using a LAN	<ul style="list-style-type: none"> Resources (files, etc.) and devices (printers, etc.) can be easily shared across the network Computers can be configured with the same 'image' so you have the same programs and access to your data from any computer (like in school) You can control devices (e.g. HomeKit)
Disadvantages to using a LAN	<ul style="list-style-type: none"> Security. Malware can spread across a network Complexity of setting up and maintaining

2. Factors affecting performance of a network	
Latency	You can get bottlenecks in parts of your network, either because of a faulty switch, or due to the design of your network. Latency is the term used describe the time it takes data to travel from one designated point to another on the network
Bandwidth	The maximum amount of data transmitted over an internet or LAN connection in a given amount of time.
Transmission Media	WiFi generally has less bandwidth than wired connections. Wired connections (ethernet) can be different speeds (10Mbps, 100Mbps, Gigabit). Switches and routers also have maximum speeds
Concurrent Users	The more users there are on a network the more data is likely being transmitted. This means it can take longer as you have to wait your turn for your packets to travel across the network

6. Star and Mesh Topologies					
Star Network	Cheaper than mesh network. Less cabling. Easy to add devices BUT total reliance on central node. If it fails whole network fails		Mesh Network	Full or partial. More cabling than star. Costs more to install. Harder to add a device. Harder to maintain BUT no Single Point of Failure	

3. Network Types	
 <p>Client-Server</p>	The network relies on a central server and all the clients (devices) request services from the server such as print services, file services etc. Additional hardware is needed in this type of network: a server. All files can be stored and backed-up centrally on a server which means workers can access files from any computer on the network and the computers can also be updated centrally.
 <p>Peer-to-Peer</p>	All computers have equal status and any computer can act as a client and a server—even at the same time. All computers can request and provide network services. For example, any computer can use a resource physically connected to a different computer. There is no need to buy a dedicated server

4. Required Hardware	
NIC	The Network Interface Card is in each computer/devices and allows connection to other devices on the network. It can allow wired connections, wireless connections, or both
Transmission Media	What connects the computer/devices to each other. Copper cables, fibre optic cables, wireless signals
Switch	A device on the network that receives signals from a computer/device and transmits the signal to its intended recipient
Router	A device used to connect different networks together. For example a home LAN to the internet, or a fibre optic cable to a home WiFi network
WAP	A Wireless Access Point is a device that receives and transmits wireless signals on the network. Often connected to rest of the network by cables

5. The Internet	
The Internet	The Internet is a global collection of interconnected networks
DNS	The Domain Name Server is a large directory allowing the Internet Service Provider (ISP) to look up the correct IP address for the desired website
Hosting	If you don't own your own servers and host your website yourself you can use a company to do it for you. They will monitor and maintain their servers they are renting you space on
The Cloud	Data can be stored 'in the cloud'. This means on servers (in server farms) run by big companies. The data can be accessed from anywhere
Web Servers and Clients	Servers provide services (e.g. Web server -> Web pages, File server -> file storage/retrieval). Clients request / use services from a server

Knowledge Organiser 5 : Protocols and Layers

1. Modes of Connection	
Wired	Ethernet is a set of standards (protocols) for how data is transmitted over a wired local area network. It is the most common set of protocols. Data is transmitted in frames
Inside an Ethernet 'frame'	<ul style="list-style-type: none"> • Preamble of bits used to synchronise transmission • Start frame delimiter to signify start of data part of the frame • Source and destination MAC address • The actual data • Error checking information (cyclic redundancy check - CRC)
Wi-Fi	Wi-Fi is a means of allowing computers, smartphones, or other devices to connect to the Internet or communicate with one another wirelessly within a particular area. It has a range of about 100m, takes quite a lot of power (relatively), and has a high bandwidth (but less than a wired connection)
Wi-Fi advantages and disadvantages	<ul style="list-style-type: none"> • Users can move around freely • Easier to set up, and less expensive than wired • Speeds are slower than wired networks • Relies on signal strength to the wireless access point (WAP) • Signal can be obstructed • Less secure than wired networks
Bluetooth	Bluetooth is a standard for the short-range wireless interconnection of mobile phones, computers, and other electronic devices. It has a range of about 10m, takes very little power, and has a relatively low bandwidth

5. Common Protocols	
TCP/IP	Transmission Control Protocol/Internet Protocol. Used to communicate over LANs and WANs
HTTP / HTTPS	Hypertext Transfer Protocol (secure). Used for webpage requests
FTP / FTPS	File Transfer Protocol (secure). Used for file transfers
POP	Post Office Protocol. Used for receiving e-mail. Downloads e-mail from the server to your device and deletes it from the server
IMAP	Internet Message Access Protocol. Used for receiving e-mail. Keeps e-mails on the server. This allows your device to stay in sync with the server
POP vs IMAP	POP you have your mail on one device since it is deleted from the server. IMAP each device syncs to server so your mail can be on multiple devices
SMTP	Simple Mail Transfer Protocol. Transfers outgoing emails from one server to another / from a email client to a sever

2. Wireless Encryption	
SSID	Wireless networks are identified by a unique "Service Set Identifier" (SSID). Can be invisible/visible and have a password. The SSID has to be used by all devices which want to connect to that network.
Encryption	Data is encrypted by scrambling the data into cipher text using a "master key" created from the SSID of the network and the password. Data is decrypted by the receiver using the same master key, so this key is not transmitted. Protocols used for wireless encryption include WEP, WPA, WPA2.

3. IP and MAC Addresses	
MAC address	Every device on a network has a Network Interface Card (NIC). Every NIC (in the world) has a unique Media Access Control (MAC) address. It is used to route frames on a LAN
IP address	IP Addressing is used to route frames on a WAN (called packets). Every device on the internet has a unique IP (Internet Protocol) address which is assigned to the device by a server. Two main standards (IPv4 and IPv6)
Internal and External IP Addresses	A router will have a unique WAN facing IP address and a LAN facing IP address. Often all devices on a LAN (with unique internal IP addresses) will share a single external IP address

4. Standards	
Definition	A set of specifications for hardware/software. Enables products to be compatible with each other and interact with each other
ASCII/Unicode	Character set standards
IEEE	Computer cables standards
HTML	Standard for creating websites
PNG, GIF, MP3	Standards for documents, images, sounds, videos, etc.

6. Layers	
Concept	The concept of layering is to divide the complex task of networking into smaller, simpler tasks that work with each other.
Responsibility	The hardware and/or software for each layer has a defined responsibility. Each layer provides a service to the layer above it
Advantages	Reduces the complexity of the problem into manageable sub-problems. Devices can be manufactured to operates at a particular layer. Products from different vendors will work together.

Knowledge Organiser 6 : Network Security

1. Forms of Attack		2. Threats posed to Networks	
Malware	Software written in order to infect computers and commit crimes e.g. fraud or identify theft. Malware exploits vulnerabilities in software	Malware	<ul style="list-style-type: none"> Files are deleted, become corrupt or are encrypted. Computers crash, reboot spontaneously and slow down. Internet connections become slow. Keyboard inputs are logged and sent to hackers.
Types of Malware	Malware is term that covers (among other things) viruses, trojans, worms, ransomware, spyware and adware	Phishing	<ul style="list-style-type: none"> Accessing a victim's account to withdraw money, or purchase merchandise and services. Open bank accounts, credit cards, cashing illegitimate cheques. Gain access to high value corporate data. Financial services can blacklist the company
Phishing	Online fraud technique used by criminals. It is designed to get you to give away personal information such as usernames, passwords, bank details, credit card details... Achieved by disguising as a trustworthy source in an electronic communication, e.g. an email or fake website.	Brute Force Attack	<ul style="list-style-type: none"> Theft of data. Access to corporate systems.
Brute Force Attack	A trial and error method used to decode encrypted data (such as passwords). Uses every combination until it hits upon the correct one.	(D)DOS Attack	<ul style="list-style-type: none"> Loss of access to a service for customers Lost revenue Lower productivity Damage to reputation
DOS Attack	Denial of Service attack. Floods a server with useless traffic causing the server to become overloaded and unavailable	Data Interception and Theft	<ul style="list-style-type: none"> Usernames and passwords compromised Disclosure / theft of corporate data
DDOS Attack	Distributed Denial of Service Attack. Using multiple computers (zombies) in a Botnet to undertake a DOS attack	SQL Injection	<ul style="list-style-type: none"> Contents of databases can be output, revealing private data. Data in the database can be amended or deleted. New rogue records can be added to the database.
Data Interception and Theft	Stealing information from an unknowing victim's computer in order to get confidential information, or to compromise their privacy. E.g. to sniff usernames and passwords	People	<p>Many system vulnerabilities are caused by people being careless:</p> <ul style="list-style-type: none"> Not installing operating system updates. Not keeping anti-malware up to date. Not locking doors to computer rooms. Not logging off or locking their computer. Leaving printouts on desks. Writing passwords down on sticky notes attached to computers. Sharing passwords. Losing memory sticks / laptops. Not applying security to wireless networks. Not encrypting data.
SQL Injection	A technique used to view or change data in a database by inserting additional code into a text input box, creating a different SQL command	Data Interception and Theft	<ul style="list-style-type: none"> Encryption and using virtual networks Staff training and computer use policies
Zero Day Attack	An attack using an unknown and undocumented vulnerability in software code (unknown to the code owner)	SQL Injection	<ul style="list-style-type: none"> Validation on text boxes Database permissions
3. Identifying and Preventing Vulnerabilities			
Malware	<ul style="list-style-type: none"> Security software (Spam filter, Anti-virus, Anti-spyware, Anti-spam) Enabling OS and security software updates. Staff training Backup files regularly onto removable media. 		
Phishing	<ul style="list-style-type: none"> Strong security software. Staff training: awareness of spotting fake emails and websites. Staff training: not disclosing personal or corporate information. Staff training: disabling browser pop-ups. 		
Brute Force Attack	<ul style="list-style-type: none"> Network lockout policy, Using progressive delays. Staff training 		
(D)DOS Attack	<ul style="list-style-type: none"> Strong firewall and packet filtering Properly configuring servers and auditing and monitoring systems 		

Knowledge Organiser 7 : Systems Software

1. Definitions	
Systems Software	Systems Software is the software used to control the hardware of the computer. It is contrasted to application software which is used to enable the user to perform tasks and create content and products
Operating System	An operating system is a piece of system software that communicates with the hardware of the computer and allows other programs to run. It is comprised of system software, or the fundamental files your computer needs to boot up and function
Peripherals	Peripherals are controlled by software called device drivers. Standard drivers (mouse and keyboard) are included in the operating system, however more specialist peripherals may need drivers programmed by the manufacturer which convert signals into machine code and are installed separately
Utility Software	Utilities are programs that are installed to perform a specific function, usually to improve the efficiency or security of a computer system

2. The Function of Operating Systems	
What does an Operating system do?	An operating system manages all of the software and hardware on the computer. Most of the time, there are several different computer programs running at the same time, and they all need to access your computer's central processing unit (CPU), memory, and storage. The OS co-ordinates this activity
Interaction	A user interacts with the computer by means of an interface provided by the operating system

3. Types of Interface	
GUI	A Graphical User Interface provides windows, icons, menus, (mouse or other) pointer... Sometimes calls WIMP. It is visual, interactive, and intuitive. Optimised for mouse/touch input
CLI	A Command Line Interface is text based. It uses less resources than a GUI. It is more efficient but harder to learn. Often repetitive processes can be automated with scripts
Menu	A Menu Interface presents successive menus to the user with options to choose at each stage. Often used with buttons on a keypad. (Think calculator when you press the 'MENU' button)
Natural Language	A Natural Language Interface responds to questions in a spoken language. They are not always reliable but are improving all the time. (Think Siri or Alexa)

4. Features Often Provided by an Operating System	
Multitasking	Running multiple applications at the same time by giving each application a small time-slice of processor time. This allows more than one program to be held in memory at a time, and data shared between them such as copy and paste. It also enables you to listen to music on your PC at the same time as word processing for example
Memory Management	When programs are loaded, the operating system decides where they are held in memory. Over time the memory becomes fragmented as programs are loaded and closed because they use different amounts of memory. The operating system must keep track of different program fragments. When the memory is full, the operating system uses virtual memory
Device Drivers	Translates operating system instructions into commands that the hardware will understand. Each peripheral will need a device driver and many common ones are built into the Operating System
User Management	Providing for different users to log into a computer. The operating system will retain settings for each user, such as icons, desktop backgrounds etc. Each user may have difference access rights to files and programs. A client server network may impose a fixed or roaming profile for a user, and manage login requests to the network.
File Management	Data is stored in files. An extension to the filename tells the operating system which application to load the file into. Files can also be placed in folders for ease of organising

5. Examples of Utility Software	
Encryption	Encryption utilities use an algorithm to scramble plain text into cipher text. It can be decrypted and read again with a Key
Defragmentation	Defragmentation utilities reorganise files on a hard disk, putting fragments of files back together, and it collects together free space. This reduces the movement of a read/write head across the surface of the disk, which speeds up file access. Solid state drives should not be defragmented (it is unnecessary as they have no moving parts. It also reduces their lifespan)
Compression	Compression utilities reduce the size of a file so that it takes up less space, and is quicker to download/upload. Compressed files must be extracted before they can be read. Compression is lossy or lossless
Backup	Backup utilities take a copy of the data and place it elsewhere (disks, tapes, cloud, etc.). Backups can be either full (backup everything) or incremental (back up changes since the last backup).

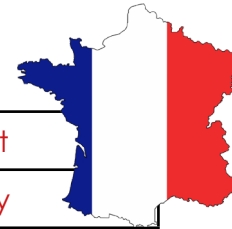
FRENCH - KNOWLEDGE ORGANISER YEAR 10



Les Vacances - Holidays

la chambre d'hôte	guest room, B&B
l'auberge de jeunesse	youth hostel
le gîte	holiday cottage
le propriétaire	the owner
la colonie de vacances	holiday camp
une station balnéaire	a seaside resort
un sac de couchage	a sleeping bag

louer	to rent
loger	to stay
compter (sur)	to count (upon)
le séjour	the stay, visit
le porte-monnaie	purse, wallet
aimer mieux	to prefer



Le temps

The Time

hier	yesterday	plus tard	later
aujourd'hui	today	puis	then
demain	tomorrow	puisque	since
le lendemain	the next day	une fois	once
depuis un jour	for (since) one day	le matin	(in) the morning
une quinzaine de jours	a fortnight	le soir	(in) the evening
d'abord	firstly	l'après-midi	(in) the afternoon
d'habitude	usually	en été	in summer
enfin	finally	en hiver	in winter
ensuite	next		

La météo

Weather Forecast

le temps	the weather; time
il y a des nuages	it's cloudy
du brouillard	foggy
des orages	stormy
du soleil	sunny
du vent	windy
il neige	it's snowing
il pleut	it's raining
il fait beau	it's nice / sunny weather
au printemps	in springtime
au bord de la mer	at the seaside
à la campagne	in the countryside
il y a trop de bruit	it's too noisy
la pêche	fishing
un rendez-vous	a meet-up
se reposer	to relax
rester au lit	to stay in bed

si j'étais riche

- if I was rich

j'achèterais

- I would buy

je préférerais + infinitive

- I would prefer to...

après m'être levé(e)

- after having got up

après avoir mangé

- after having eaten

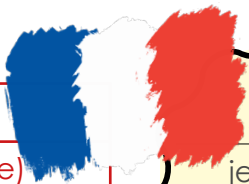
je mangerai

- I will eat

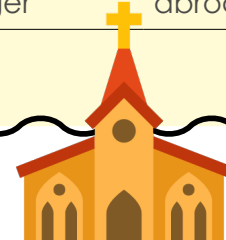
Les activités

Activities

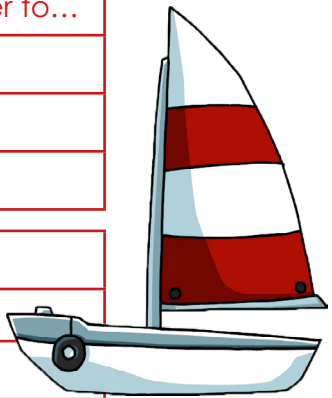
lire un roman	to read a novel
faire	to do (or to make)
un stage de surf	a surfing course
faire de l'escalade	to do (go) climbing
la planche à voile	sailing
du VTT	Mountain Biking
faire des achats	to do the shopping
se bronzer	to get a tan, sunbathe



Les pays		Countries	
je suis allé(e)	I went	au Pays-Bas	in/to the Netherlands
nous sommes allé(e)s	we went	aux Pays de Galles	in/to Wales
j'irai	I will go	en Suisse	in/to Switzerland
nous allons visiter	we are going to visit	en Écosse	in/to Scotland
en Allemagne	in/to Germany	à l'étranger	abroad
en Angleterre	in/to England		



nager	to swim
la piste cyclable	cycle path/lane
Il faut	you must
trouver	to find
Il vaut mieux + inf	it would be better to...
plein de	lots of
en plein air	in the open air
découvrir	to discover



voyager	to travel
se déplacer	to get around
à pied	on foot
à vélo	by bike
en voiture	by car
en bateau	by boat
en avion	by plane
la station de ski	ski resort

Les bâtiments	Buildings		
l'église	church	minable	pathetic
la bibliothèque	library	obliger	to force
le château	castle	sauf	except
la gare	train station	déçu(e)	disappointed
la gare routière	bus station	complet	full
l'hôtel de ville	Town Hall	essayer	to try
la mairie	Town Hall	sale	dirty
le magasin	shop	propre	clean
l'arrêt d'autobus	bus stop	en panne	out of order
là-bas	over there		

La nourriture		Food	
un repas	a meal	goûter	to taste
j'ai soif	I'm thirsty	plutôt	rather
j'ai faim	I'm hungry	salé	salty (sale = dirty)
le plat du jour	meal/dish of the day		



les opinions	opinions
à mon avis	in my opinion
selon moi	according to me
je pense que	I think that
je crois que	I believe that
j'aime	I like
je n'aime pas	I don't like
j'adore	I love
je déteste	I hate
je préférerais	I would prefer
j'aimerais	I would like
je voudrais	I would like
si j'avais le choix	if I had the choice
si j'étais riche	if I was rich
j'ai toujours voulu	I've always wanted



KEY PHRASES & COMPLEX STRUCTURES

j'espère + infinitive	I hope to
j'ai l'intention de + infinitive	I intend to
avant de + infinitive	before ...ing
j'ai décidé de + infinitive	I decided to
Je viens de + infinitive	I have just
bien que + subjunctive	although
j'aurai seize ans en janvier	I will be 16 in January
je suis né(e) à	I was born in
après avoir mangé	after having eaten
après être allé(e)	after having been
j'ai toujours voulu	I have always wanted
je trouve ça	I find that
je pense que	I think that
à mon avis	in my opinion

je me suis couché(e) à	I went to bed at
je me suis levé(e) à	I got up at
cependant	however
d'habitude	usually
à l'avenir	in the future
aussi	also
mais	but
normalement	normally
Pour + infinitive – Pour garder la forme	to keep fit
puis	then
si	if
je voudrais + infinitive	I would like
je veux + infinitive	I want
je préférerais + infinitive	I would prefer to...

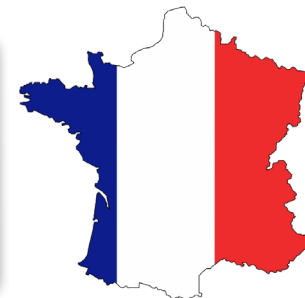
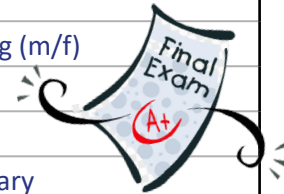
Qu'est-ce qu'il y a sur la photo? What is in the photo?

sur la photo, il y a...	in the photo, there is...
je peux voir	I can see
(deux) personnes	(2) people
un homme	a man
un garçon	a boy
une femme	a lady / a wife
une fille	a girl / daughter
il a les cheveux bruns	he has brown hair
elle a les yeux verts	she has green eyes
il porte un t-shirt rouge	he's wearing a red t-shirt
elle porte un jean bleu	she's wearing blue jeans
ils portent des vêtements	they are wearing clothes
ils s'amuse	they are having fun
il fait beau	it's sunny
il pleut	it's raining



Future Plans Phrases

il est important...	it's important...
d'être travailleur/travailleuse	to be hard-working (m/f)
de passer mes examens	to pass my exams
de trouver un boulot	to find a job
de gagner un bon salaire	to earn a good salary
d'avoir un avenir plein d'opportunités	to have a future full of opportunities

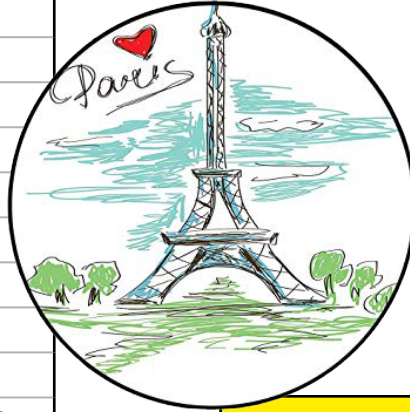
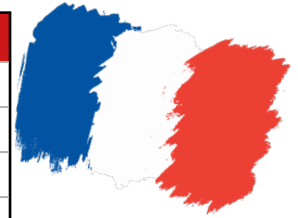


KEY FREQUENCY WORDS/TIME EXPRESSIONS & VERBS (PAST, PRESENT & FUTURE)

PRESENT	
aujourd'hui	today
quelquefois	sometimes
d'habitude	usually
normalement	normally
généralement	generally
souvent	often
toujours	always
tous les jours	every day
tous les soirs	every evening
tous les weekends	every weekend
une fois par semaine	once a week
deux fois par semaine	twice a week
une fois par mois	once a month
chaque année	every year
le lundi	on Mondays/every Monday
le mardi	on Tuesdays/every Tuesday

PAST	
hier	yesterday
le weekend dernier	last weekend
la semaine dernière	last week
l'été dernier	last summer
l'année dernière	last year

FUTURE	
demain	tomorrow
le lendemain	the day after tomorrow
le weekend prochain	next weekend
la semaine prochaine	next week
l'été prochain	next summer
l'année prochaine	next year



LINGUASCOPE
Go to:
www.linguascope.com
Your teacher will issue you
with your log-in details for
Linguascope

INFINITIVE	PAST	PRESENT	FUTURE
manger – to eat	j'ai mangé nous avons mangé	je mange nous mangeons	je vais manger nous allons manger
visiter – to visit	j'ai visité nous avons visité	je visite nous visitons	je vais visiter nous allons visiter
regarder – to watch	j'ai regardé nous avons regardé	je regarde nous regardons	je vais regarder nous allons regarder
aller – to go	je suis allé(e) nous sommes allé(e)s	je vais nous allons	je vais aller nous allons aller
boire – to drink	j'ai bu nous avons bu	je bois nous buvons	je vais boire nous allons boire
jouer – to play	J'ai joué Nous avons joué	je joue nous jouons	je vais jouer nous allons jouer
faire – to do	j'ai fait nous avons fait	je fais nous faisons	je vais faire nous allons faire
être – to be	j'étais – i was c'était – it was nous étions – we were	je suis – i am il/elle est – he/she is nous sommes – we are	je vais être il/elle/on va être nous allons être


GEOGRAPHY

Relief of the UK

Relief of the UK can be divided into uplands and lowlands. Each have their own characteristics.

Key

- Lowlands
- Uplands

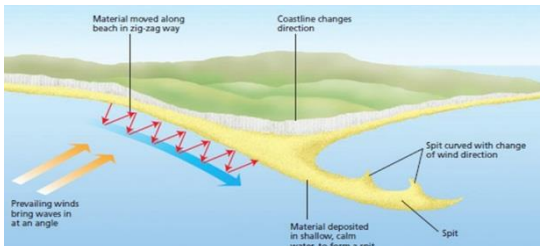


Areas +600m: Peaks and ridges cold, misty and snow common. i.e. Scotland

Areas - 200m: Flat or rolling hills. Warmer weather. i.e. Fens

Formation of Coastal Spits - Deposition

Example: Dawlish Warren Spit



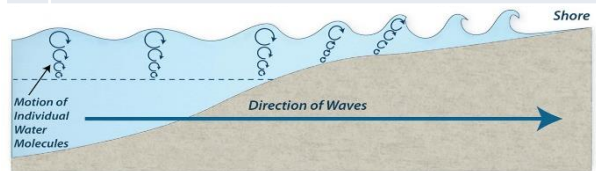
- 1) Swash moves up the beach at the angle of the prevailing wind.
- 2) Backwash moves down the beach at 90° to coastline, due to gravity.
- 3) Zigzag movement (Longshore Drift) transports material along beach.
- 4) Deposition causes beach to extend, until reaching a river estuary.
- 5) Change in prevailing wind direction forms a hook.
- 6) Sheltered area behind spit encourages deposition, salt marsh forms.

How do waves form?

Waves are created by wind blowing over the surface of the sea. As the wind blows over the sea, friction is created - producing a swell in the water.

Why do waves break?

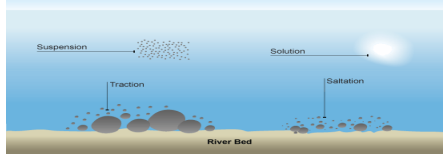
- 1) Waves start out at sea.
- 2) As waves approaches the shore, friction slows the base.
- 3) This causes the orbit to become elliptical.
- 4) Until the top of the wave breaks over.



Types of Erosion	
The break down and transport of rocks – smooth, round and sorted.	
Attrition	Rocks that bash together to become smooth/smaller.
Solution	A chemical reaction that dissolves rocks.
Abrasion	Rocks hurled at the base of a cliff to break pieces apart.
Hydraulic Action	Water enters cracks in the cliff, air compresses, causing the crack to expand.

Types of Weathering	
Weathering is the breakdown of rocks where they are.	
Carbonation	Breakdown of rock by changing its chemical composition.
Mechanical	Breakdown of rock without changing its chemical composition.

Types of Transportation	
A natural process by which eroded material is carried/transported.	
Solution	Minerals dissolve in water and are carried along.
Suspension	Sediment is carried along in the flow of the water.
Saltation	Pebbles that bounce along the sea/river bed.
Traction	Boulders that roll along a river/sea bed by the force of the flowing water.



What is Deposition?

When the sea or river loses energy, it drops the sand, rock particles and pebbles it has been carrying. This is called deposition.

Mass Movement

A large movement of soil and rock debris that moves down slopes in response to the pull of gravity in a vertical direction.

- 1) Rain saturates the permeable rock above the impermeable rock making it heavy.
- 2) Waves or a river will erode the base of the slope making it unstable.
- 3) Eventually the weight of the permeable rock above the impermeable rock weakens and collapses.
- 4) The debris at the base of the cliff is then removed and transported by waves or river.



Formation of Bays and Headlands



- 1) Waves attack the coastline.
- 2) Softer rock is eroded by the sea quicker forming a bay, calm area causes deposition.
- 3) More resistant rock is left jutting out into the sea. This is a headland and is now more vulnerable to erosion.

Unit 1c Physical Landscapes in the UK


AQA

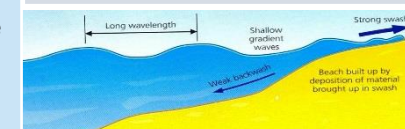
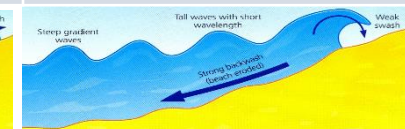
Mechanical Weathering Example: Freeze-thaw weathering

Stage One
Water seeps into cracks and fractures in the rock.

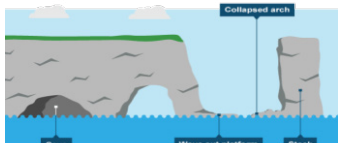
Stage Two
When the water freezes, it expands about 9%. This wedges apart the rock.

Stage Three
With repeated freeze-thaw cycles, the rock breaks off.



Size of waves	Types of Waves	
<ul style="list-style-type: none"> Fetch how far the wave has travelled Strength of the wind. How long the wind has been blowing for. 	<h3>Constructive Waves</h3> <p>This wave has a swash that is stronger than the backwash. This therefore builds up the coast.</p> 	<h3>Destructive Waves</h3> <p>This wave has a backwash that is stronger than the swash. This therefore erodes the coast.</p> 

Formation of Coastal Stack



Example: Old Harry Rocks, Dorset

- 1) Hydraulic action widens cracks in the cliff face over time.
- 2) Abrasion forms a wave cut notch between HT and LT.
- 3) Further abrasion widens the wave cut notch to form a cave.
- 4) Caves from both sides of the headland break through to form an arch.
- 5) Weather above/erosion below – arch collapses leaving stack.
- 6) Further weathering and erosion leaves a stump.

Coastal Defences


Hard Engineering Defences		
Groynes	Wood barriers prevent longshore drift, so the beach can build up.	<ul style="list-style-type: none"> ✓ Beach still accessible. ✗ No deposition further down coast = erodes faster.
Sea Walls	Concrete walls break up the energy of the wave. Has a lip to stop waves going over.	<ul style="list-style-type: none"> ✓ Long life span ✓ Protects from flooding ✗ Curved shape encourages erosion of beach deposits.
Gabions or Rip Rap	Cages of rocks/boulders absorb the waves energy, protecting the cliff behind.	<ul style="list-style-type: none"> ✓ Cheap ✓ Local material can be used to look less strange. ✗ Will need replacing.

Soft Engineering Defences


Beach Nourishment	Beaches built up with sand, so waves have to travel further before eroding cliffs.	<ul style="list-style-type: none"> ✓ Cheap ✓ Beach for tourists. ✗ Storms = need replacing. ✗ Offshore dredging damages seabed.
Managed Retreat	Low value areas of the coast are left to flood & erode.	<ul style="list-style-type: none"> ✓ Reduce flood risk ✓ Creates wildlife habitats. ✗ Compensation for land.

Case Study: Dawlish Warren

Location and Background
South Devon, in between Dawlish and Exmouth – across mouth of River Exe.



Geomorphic Processes
Longshore drift – SW prevailing winds forming waves at an angle = movement of material along the coast forming a spit.
Erosion (abrasion and hydraulic action) – creating the cracks, caves, arch and stack at Langstone Rock.
Erosion – wave cut platform at the foot of Langstone Rock.
Deposition – sand / shingle beach.



Management
Soft engineering : beach nourishment to replenish the spit in 2018.
Hard engineering:

- Wave return sea wall – to protect the railway & tourist areas
- Revetment – to protect the car park and tourist area
- Riprap – used along with sea wall to protect base of sea wall
- Geotext tubing – placed at the neck to reinforce it to prevent flooding along the river Exe in high storms.

Water Cycle Key Terms

Precipitation	Moisture falling from clouds as rain, snow or hail.
Interception	Vegetation prevent water reaching the ground.
Surface Runoff	Water flowing over surface of the land into rivers
Infiltration	Water absorbed into the soil from the ground.
Transpiration	Water lost through leaves of plants.

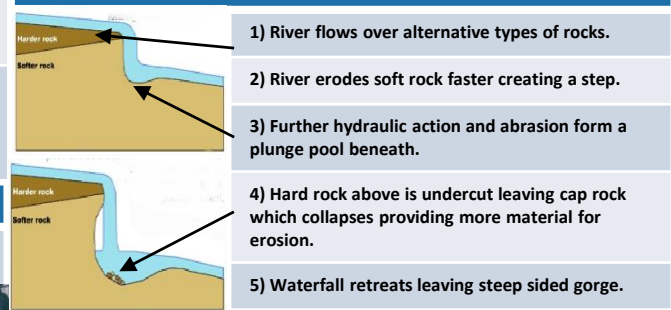
Physical and Human Causes of Flooding.

Physical: Prolong & heavy rainfall Long periods of rain causes soil to become saturated leading runoff.	Physical: Geology Impermeable rocks causes surface runoff to increase river discharge.
Physical: Relief Steep-sided valleys channels water to flow quickly into rivers causing greater discharge.	Human: Land Use Tarmac and concrete are impermeable. This prevents infiltration & causes surface runoff.

Upper Course of a River

Near the source, the river flows over steep gradient from the hill/mountains. This gives the river a lot of energy, so it will erode the riverbed vertically to form narrow valleys.

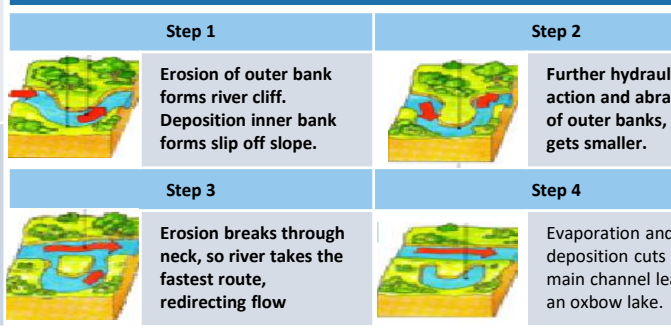
Formation of a Waterfall



Middle Course of a River

Here the gradient get gentler, so the water has less energy and moves more slowly. The river will begin to erode laterally making the river wider.

Formation of Ox-bow Lakes

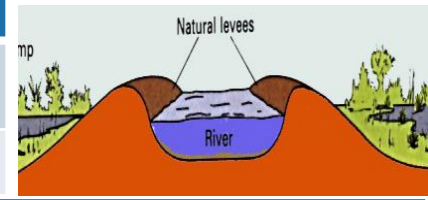


Lower Course of a River

Near the river's mouth, the river widens further and becomes flatter. Material transported is deposited.

Formation of Floodplains and levees

When a river floods, fine silt/alluvium is deposited on the valley floor. Closer to the river's banks, the heavier materials build up to form natural levees.



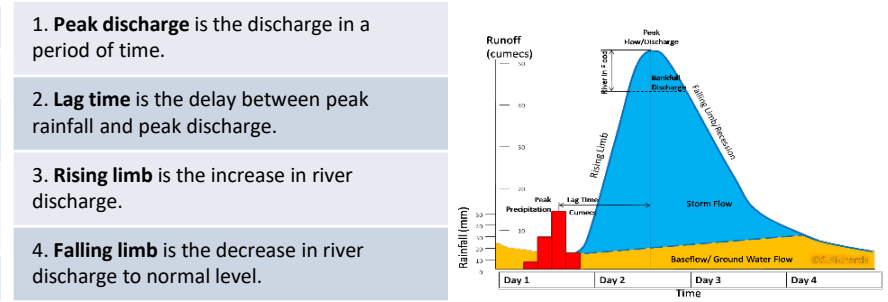
- ✓ Nutrient rich soil makes it ideal for farming.
- ✓ Flat land for building houses.

River Management Schemes

Soft Engineering	Hard Engineering
<p>Afforestation – plant trees to soak up rainwater, reduces flood risk. Demountable Flood Barriers put in place when warning raised. Managed Flooding – naturally let areas flood, protect settlements.</p>	<p>Straightening Channel – increases velocity to remove flood water. Artificial Levees – heightens river so flood water is contained. Deepening or widening river to increase capacity for a flood.</p>

Hydrographs and River Discharge

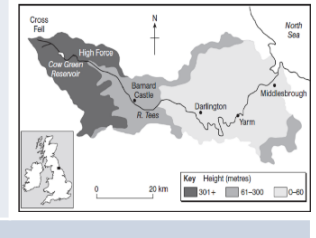
River discharge is the volume of water that flows in a river. Hydrographs who discharge at a certain point in a river changes over time in relation to rainfall



Case Study: The River Tees

Location and Background
Located in the North of England and flows 137km from the Pennines to the North Sea at Red Car.

Geomorphic Processes
Upper – Features include V-Shaped valley, rapids and waterfalls. Highforce Waterfall drops 21m and is made from harder Whinstone and softer limestone rocks. Gradually a gorge has been formed.
Middle – Features include meanders and ox-bow lakes. The meander near Yarm encloses the town.
Lower – Greater lateral erosion creates features such as floodplains & levees. Mudflats at the river's estuary.



Management

- Towns such as Yarm and Middleborough are economically and socially important due to houses and jobs that are located there.
- Dams and reservoirs in the upper course, controls river's flow during high & low rainfall.
- Better flood warning systems, more flood zoning and river dredging reduces flooding.

HISTORY KNOWLEDGE ORGANISER – AMERICAN WEST

1. Early America

Independence	Plantations
Liberty	Reserve
Colony	Civilised
Constitution	Native
Congress	
The five civilised tribes:	
<ul style="list-style-type: none"> • Cherokee • Choctaw • Creek • Chickasaw • Seminole 	



Declaration of Independence	1776
Original 13 States	1776
George Washington (first President)	1789
Lewis & Clark (Great American Desert)	1803
Louisiana Purchase	1819
Missouri Compromise signed	1820
Cotton Boom	1830
Indian Removal Act	1830
Indian Trade and Intercourse Act	1834
Seminole War	1835
The Creek War	1836
The Trail of Tears	1838

2. Indian Territory.

Federal/State	Dog Soldiers
Frontier	Scalping
Reservation	Coup Stick
Indian Territory	Brotherhoods
Savage	Great Spirit
Predators	Prey
Social Structure	Medicine Man
Nomadic	Spirit World
Travois/Tipi	Sun Dance
Collaboration	Sacred Land
Resourceful	Buffalo
Reverence	

US win the Mexican-American War	1848
Indian Appropriations Act	1851
The Fort Laramie Treaty	1851

'For as long as the stars shall shine and the rivers flow.'
Andrew Jackson (1834)



3. Early Settlement

Expansion	Mountain men
Natural Frontiers	Jim Bridger
Extreme weather	Bridger pass
Early Pioneers	Bridger trail
Independence	Fort Bridger
Mormons	Donner party
Joseph Smith	Wagon train
Brigham Young	Mining towns
Moroni	Law of the Gun
Religious Persecution	Claim-jumping
Dannites	Agricultural
Deseret	Climate

Lewis and Clark Expeditions	1803-6
Bank collapse	1837
Oregon Trail	1843
Manifest Destiny (John O'Sullivan)	1845
Californian Gold Rush	1849
Fort Laramie Treaty	1851
Horace Greeley 'Go West young man'	1859



4. Civil War

Democrats	Assassination
Republicans	Immigrants
Secession	Deserters
Radical	Ex-Slaves
Reconstruction	Ex-Soldiers
Homesteaders	
Filing a claim	
13th Amendment	
Immigration	
Abolitionists	
Union/North/Blues/Free States	
Confederacy/South/Greys/Slave States	



The Missouri Compromise	1820
The Kansas-Nebraska Act ended M C	1854
Abraham Lincoln becomes President	1860
Confederate States refused secession	1861
American Civil War	1861-5
Emancipation Proclamation	1862
The 'Black Codes' (KKK)	1866
Reconstruction Acts	1867
The Reconstruction years	1865-77
Free States – Banned Slavery	
Slave States – Allowed Slavery	



5. Homesteaders and Farming

Pacific Railroad Act, 1862	Technology
Transcontinental	Timber
Open Range	Sod Houses
Rustling	Crops
Long Drives	Dry farming
Cattle Trails	Mennonites
Meat Packing	Turkey red wheat
Quarantine	
Vigilante	
Posse	
Lynching	
Marshal	



The US Civil War ends, herds multiplied	1865
Goodnight & Loving Trail	1866
Abilene (Joseph McCoy)	1867
'Beef bonanza'	1870s
Open Range (John Iliff)	1870
Harsh winter (-55%C) ends Open Range	1886-7
Homestead Act ((160acres for \$10+\$30)	1862
Timber Culture Act (another 160 acres)	1873
Wind Pump (Daniel Halladay)	1874
Joseph Glidden (barbed wire)	1874
Sulky Plough (steel, spare parts)	1875
Desert Land Act (another 640 acres)	1877

6. Conflict & Conquest

Rustlers	Reason for Conflict:
Roundup	* Culture of the Plains Indians
Foreman	* Government policy
Treaty	* Destruction of the buffalo
Massacre	
Extinction	
Bozeman Trail	
Sacred	
Total War	
Clash of Cultures	
Assimilate	
Americanise	



Lincoln County War	1878
Johnson County War	1892
Little Crow's War (let them eat grass)	1862
Sand Creek Massacre (Col Chivington)	1864
Red Cloud's War	1866-8
2nd Treaty of Fort Laramie	1868
Gold found in the Black Hills of Dakota	1874
The Battle of the Little Bighorn	1876
The Exoduster Movement	1879
The Dawes Act	1887
Wounded Knee Massacre	1890
Oklahoma Land Rush	22893

Year 10 Spanish - Cycle 3

Si ganara la lotería	- If I won the lottery
si fuera millonario/a	if I were a millionaire
si fuera posible...	if it were possible
si ganara la lotería	if I were to win the lottery
cambiaría de peinado	I would change my hairstyle
compraría	I would buy...
un montón de ropa marca	lots of designer clothes
unas gafas de sol de marca	designer sunglasses
iría a la peluquería	I would go to the hairdresser's
tendría un asistente personal	I would have a personal assistant
tendría un teléfono móvil de lujo	I would have an expensive mobile phone
viajaría por todo el mundo	I would travel around the world
el coche cuatro por cuatro	4x4 vehicle
el equipamiento propio/a	own equipment
la ropa de marca	designer clothes
salir de fiesta	to go out partying



Lo que hago por las mañanas	- What I do in the mornings
La rutina	routine
desayunar	to have breakfast
despertar(se)	to wake up
duchar(se)	to have a shower
ir al instituto	to go to school
lavar(se) los dientes	to brush your teeth
levantar(se)	to get up
peinar(se)	to brush/comb your hair
vestir(se)	to get dressed
a menudo	often
a veces	sometimes
antes	first, before
después	after, afterwards
durar	to last
inmediatamente	immediately
luego	then, later
mientras	while
nunca	never
raras veces	rarely
siempre	always
deprisa	fast, quickly
tener prisa	to be in a hurry

Lo que hago por las tardes y por las noches	What I do in the afternoons and evenings
acostar(se)	to go to bed
cambiar(se) de ropa	to get changed
cenar	to have dinner
hacer los deberes	to do homework
merendar	to have a snack (afternoon)
pasear al perro	to walk the dog
relajar(se)	to relax
volver a casa	to return home
cuando llego a casa	when I arrive home
cuando me apetece	when I feel like it
si mis padres me dejan	if my parents let me
si tengo tiempo	if I have time
siempre que puedo	whenever I can
al final del día	at the end of the day
aproximadamente	approximately
el proyecto	project
temprano	early
(no) tener tiempo	to (not) have time



¡Te he dicho que no!				I've told you, no!			
aguantar(se)	to stand/bear	llevarse bien con	to get on well with	estar en contra	to be against	a todas horas	all the time
criticar	to criticise	llevarse mal con	to get on badly with	estricto/a	strict	al conflicto	conflict
discutir	to argue, quarrel	pelearse	to fight/argue	incompatible	incompatible	el lío	mess
enfadarse	to get angry	respetar	to respect	injusto/a	unfair	El permiso	permission
gritar	to shout	volver a casa	to return home	justo/a	fair	La regla	rule
llegar a casa	to arrive home	estar de acuerdo	to be in agreement	razonable	reasonable		

Year 10 Spanish - Cycle 3

sueño con otra vida

I dream about another life

ambicioso/a	ambitious	últimamente	recently, lately
el canal	canal	vender	to sell
cansar	to tire	comenzar/empezar a	to start doing
igual	same, equal	Dejar de	to stop doing
el pensamiento	thought	depender de	to depend on
el puente	bridge	hablar con	to talk to
la quinceañera	15th birthday party	hablar sobre	to talk about
recoger	to collect/pick	pensar en	to think about
el sentimiento	feeling	soñar con	to dream about
tardar	to take (time)/be late	volver a	to do something again
traer	to bring		



tengo inquietudes

I have concerns

la basura	rubbish
la contaminación	contamination, pollution
contaminante	contaminating, polluting
el crecimiento	growth
el desperdicio de plástico	plastic waste
la destrucción	destruction
la extinción	extinction
los habitats naturales	natural habitats
las inundaciones	floods
las lluvias torrenciales	torrential rain
los mares	seas
medioambiental	environmental
el medio ambiente	environment
la sequía	drought
la tala de árboles	tree felling
alarmante	alarming
en peligro	in danger
preocupante	worrying
por todas partes	everywhere
trágico/a	tragic
me enfurece	I'm furious about
me da miedo	I'm scared of
me da pena	I'm saddened by
me da rabia	I'm angry about
me preocupa	I'm worried about



En busca de un mundo mejor – In search of a better world

cuidar (de)	to care (for)	comprar productos locales	buy local products
proteger	to protect	ducharse	take a shower
se puede/se debe...	you can/you must...	no malgastar agua	not waste water
reciclar..	recycle...	ser miembro	be a member
...cartón	...cardboard	de un grupo de presión	of a pressure group
...latas	...cans	a diario	daily
...papel	...paper	el compromiso	obligation/commitment
usar el transporte público	use public transport	la concentración	gathering/rally
ir a pie	go on foot	la conciencia	awareness
ir en bicicleta	go by bike	las donaciones	donations
no comprar	not buy	el espacio verde	green space
envases de plástico	plastic containers	la prioridad	priority
		todo lo posible	everything possible

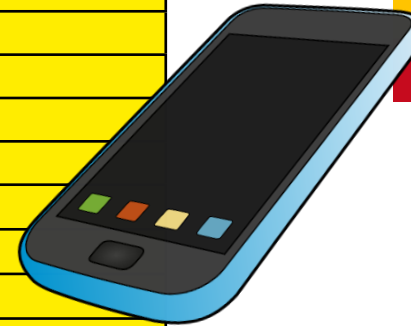


SPANISH - KNOWLEDGE ORGANISER

Relaciones con familia y amigos	Relationships with Family and Friends
el abuelo	grandfather
alegre	happy
amable	kind
anciano/a	old
barba	beard
calvo/a	bald
carñoso/a	affectionate, tender
castaño/a	brown hair colour
corto/a	short
delgado/a	thin
gafas	glasses
gracioso/a	funny
el hermano	brother
el hijo	son
joven	young
los ojos	eyes
el padrastro	stepfather
el pelo	hair
el tío	uncle
viejo/a	old



Los medios sociales	Social media
a veces	sometimes
chatear	to chat online
colgar fotos	to post photos
el correo electrónico	email
demasiado/a	too much
el país	country
un poco	a little, a bit
la red	internet
la red social	social network
todos los días	every day
genial	brilliant, great
gratis	free of charge
el inconveniente	drawback, disadvantage
mandar	to send
los medios sociales	social media
el móvil	mobile/smartphone
el ordenador	computer
la pantalla	screen
por mi parte	as far as I'm concerned
tampoco	neither, nor



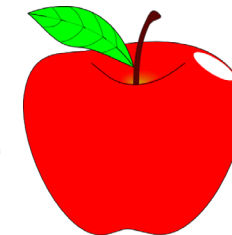
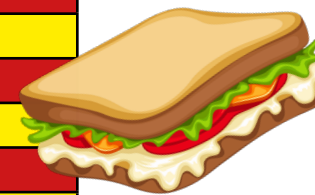
El matrimonio y parejas	Marriage and Partnership
cada vez más	more and more
enamorado/a	in love
feliz	happy
la gente	people
maleducado/a	rude
el marido	husband
el matrimonio	marriage
la mujer	wife, woman
la novia	girlfriend, fiancée
el novio	boyfriend, fiancé
la pareja	partner
los parientes	relatives
pelear(se)	to fight
el piso	flat, apartment
así que	so, therefore
la boda	wedding
casarse	to get married
el compañero/a	colleague, friend
la fiesta	party, festival
próximo/a	next

La Tecnología Portátil - Mobile Technology			
aunque	although	borrar	to delete, erase
enviar	to send	cargar	to load
el juego	game	el correo basura	spam, junk mail
lento/a	slow	cualquier	any
el mensaje de texto	text message	de vez en cuando	from time to time
navegar la red	to surf the internet	el disco duro	hard drive
prohibido	forbidden	igual	same
el regalo	present, gift	el ordenador portátil	laptop
ridículo/a	ridiculous	sacar fotos	to take photos
rota/a	broken	la tableta	tablet



La Música, El Cine Y La Tele	Music, Cinema and TV
aburrido/a	boring
bailar	to dance
cantar	to sing
el cine	cinema
de vez en cuando	from time to time
entretenido/a	entertaining
estimulante	challenging
leer	to read
la película	film
salir	to go out
a veces	sometimes
los dibujos animados	cartoons
el fin de semana	weekend
las noticias	news
nunca	never
por lo general	in general
siempre	always
la telenovela	soap opera
todo/a/os/as	all, every
tonto/a	silly, stupid

La Comida Y Comer Fuera	Food and Eating Out
el agua	water
el bocadillo	sandwich
la carne	meat
la comida	lunch, food, meal
desayunar	to have breakfast
el helado	ice cream
el jamón	ham
la manzana	apple
las patatas fritas	chips, fries
el pescado	fish
el pollo	chicken
el postre	dessert, pudding
la tortilla	omelette
las verduras	vegetables
la cebolla	onion
las gambas	prawns
los guisantes	peas
los mariscos	seafood
la naranja	orange
el plátano	banana
el queso	cheese
el vino blanco/tinto	white/red wine



El Deporte - Sport	
al aire libre	in the open air, outdoors
el baloncesto	basketball
la equitación	horse riding
el estadio	stadium
montar a caballo	to ride a horse
montar en bicicleta	to ride a bike
la natación	swimming
el patinaje	skating



El Deporte - Sport	
la pista del hielo	ice rink
el polideportivo	sports centre
el alpinismo	rock climbing
cansado/a	tired
el concurso	competition
el entrenamiento	training
el equipo	team
el esquí	skiing



El Deporte - Sport	
ganar	to win
el partido	match
relajarse	to relax
la vela	sailing



Art

Component 2: Responding to a Brief

Carnival

Key Words

festival, fiesta, fete, gala, celebration, parade, march, 3D dimensions, intentions, recording skills, visual language, primary, secondary, stimulate, designing, resistant, non-resistant, modelling, carving, constructing, joining, moulding, volume, space, surface, firm, structure, measuring, estimating, firming, assembling, finishing, investigating, properties, combinations, maquettes, exploratory, select.

Techniques, Materials and Processes: sculpture, clay, wood, wire, paper, maquettes, natural and man-made fibres, weaving, construction, plastics, fabrics, mod roc, withies, paper mache.



PETER MINSHALL



PHILIP TREACY

Carnival - a festival involving processions, music, dancing and the use of masquerade:

Artists, designers, crafts people, sculptors, interior designers, architects and product designers have working in three dimensions in common. 3D art, craft and design covers a wide range of practices across different disciplines to create objects that we may see or use in our homes, in public spaces, in galleries, in shops or in the workplace.

Working in 3D and exploring 3D visual language requires skills in handling 3D materials and techniques. In Component 2 you will experiment with a range of 3D visual languages whilst being inspired by Carnivals.

Tips for Success

- Experiment with a diverse range of materials, equipment and techniques when developing 3D visual language.
- Develop in-depth investigations into a range of professional 3D practitioners and analyse how they communicate their ideas.
- Imaginatively develop ideas that meet the requirements of the brief.
- Analyse and explain the progress of your ideas and your use of 3D methods.
- Consider and record Health & Safety constraints and the formal elements used in your work.
- Ensure your ideas have purpose and meaning.
- Understand that each material has its own set of rules and methods - but rules can be broken through experimentation and manipulation.
- **Take creative risks.**



MICHAEL CHRISTIAN

Assessment Objectives	
AO1	Demonstrate understanding of the requirements of a brief.
AO2	Develop and produce a response to a brief
AO3	Present a response to a brief.

Inspiration/Artists		
Venetian	Headdresses	Philip Treacy
African	Costumes	Peter Minshall
Mexican	Installations	
Gargoyles	Conceptual	Michael Christian
Carnivals	Floats	
Festivals	Masks	Sergio Boldrin



- FAMOUS CARNIVALS & FESTIVALS**
- Rio de Janeiro
 - Notting Hill
 - Mardi Gras
 - Viareggio Carnival
 - Trinidad & Tobago Carnival
 - Burning Man
 - Day of the Dead - Dia De Los Muertos
 - Coachella



DAY OF THE DEAD



MARDI GRAS

- Useful Websites**
- www.craftscouncil.org.uk
 - www.vam.ac.uk
 - www.fashion-era.com
 - www.culture24.org/

BUSINESS STUDIES

1.5 Understanding external influences on business

1.5.1 Business Stakeholders

Stakeholders – are anyone with an interest in the businesses success or failure. eg:

Shareholders (owners) – safe return on investment, increase in value of the business (share price), profit and dividends.

Employees – want secure employment, nice working conditions, good pay

Customers – A wide range of good quality, low priced goods and services easily available.

Suppliers – regular, large contracts at a good price.

Local community – job opportunities but potentially concerned with pollution etc

Pressure Groups – want business to behave ethically.

Government – want high tax receipts and low benefit claims, whilst making sure businesses stick to the law.

Above is what stakeholders want but you may also need to say what they give to the business

Conflicts

Often occur between owners and other stakeholders

Eg staff want a pay rise but owners not keen as will increase their costs and potentially their profits.

1.5.2 Technology and business

Different types of technology

e-commerce – buying and selling on the internet

social media – Tik Tok, Facebook, Snapchat, X etc

digital communications - email, video conferencing etc

payment systems – contactless payment, Chip and Pin, Apple Pay, PayPal etc

How technology influences business activity

Sales – increase due to 24/7 opportunities, the wider reach of websites and the increased convenience of payment methods.

Costs – tend to fall as no need for as many staff or to pay high rents for physical locations with high footfall.

Marketing Mix – wide range of products can be stocked on websites than in physical stores, As costs are lower this can be passed on to customer in lower prices. Place (website) can be open 24/7 and accessed from around the world, increasing convenience. Promotion – Digital advertising spend now 30% (2022) of all advertising spend in UK. Growth in “influencers” on social media, Cadbury Crème Egg has 2.1m followers on Facebook (2024)

1.5.3 Legislation and business

Principles of consumer law: product should be safe, fit for purpose, as described; if not customer has a level of protection to get refunds and in extreme circumstances sue.

Principles of employment law: this covers the areas of recruitment, discrimination and health and safety.

Impact of legislation on business:

Legislation generally adds costs to the business but can increase efficiency as workers may be more motivated in a better work environment. If businesses break the law they can face large fines.



1.5.4 The economy and business

Key Terms

Unemployment – the amount of people out of work and actively seeking a job of working age. High unemployment – low sales, choice in who you recruit. Low unemployment – high sales, difficult to recruit staff

Changing levels on consumer income – increasing income normally leads to more sales, decreasing income less sales

Inflation – the rate at which average prices are going up. High inflation leads to increase in costs, therefore increase in prices, normally demand goes down as people have less disposable money to spend.

Changes in interest rates - High interest rates make borrowing expensive, less demand, less investment

Government taxation – depending on type of tax a rise will lead to lower profits due to higher costs or lower sales due to lower demand, again reducing profit.

Changes in exchange rate – how much of a foreign currency you can get when you swap £ for them. The higher the exchange rate the cheaper it is to import and harder to export the goods abroad.

1.5.5 External Influences

This is largely a recap of the previous topics but focusing on how businesses may respond to changes in:

Technology – Automating factories, Computer Aided Design, moving business online and closing physical stores, improved communication with staff, suppliers and customers.

Legislation – Impact of National Minimum Wage (and National Living Wage) etc


The economic climate – How would businesses deal with/be impacted by increased competition (lower price, increase promotion, renovate location etc), increased taxes, increased interest rates etc

Design Technology

W/B 15th Apr 2024 – Metal Production

The production of all basic metals is the same (regardless of whether they are ferrous or nonferrous). Alloys, which are a mixture of two or more basic metals have the same source and processing stages but are manufactured and disposed of differently.

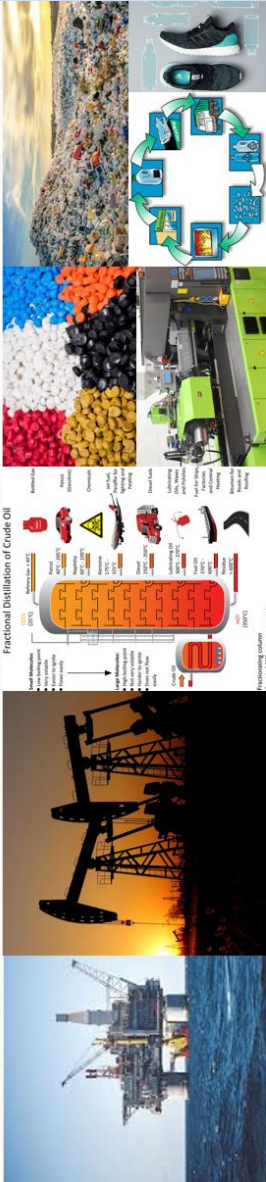
Stage	Source	Processing	Manufacture	Shipping	Disposal
Steel Aluminium Copper Iron	Mining ores from underground	Smelting or electrolysis used to melt metal from the rock	Bars and sheet are bent in to shape and molten metal is cast	Distributed to the UK from factories	Recycle or landfill



W/B 22nd Apr 2024 – Plastic Production

Most plastics are made from synthetic polymers but some natural plastics are made from rubber plants. The source of all synthetic polymers follow the same production plan. The source Natural polymers come from rubber plants. The sap is harvested from a rubber plant and used to make tyres and latex gloves and condoms.

Stage	Source	Processing	Manufacture	Shipping	Disposal
Acrylic/ PP PET/ HIPs PVC/ Resin	Mining, drilling and fracking of oil	Fractional distillation to create long polymer chains	Pellets are melted and poured in to shapes	Distributed to the UK from factories	Recycle or landfill



W/B 29th April 2024 – Wood Production

The production of all natural timbers is the same (regardless of whether they are softwoods or hardwoods). Manufactured boards have the same source and processing stages but are manufactured and disposed of differently.

Stage	Source	Processing	Manufacture	Shipping	Disposal
Pine/ Spruce Beech/ Oak Mahogany Teak	Logging of trees from a forest	Conversion of logs to planks of wood	Making products from the planks	Distributed to the UK from factories in flat pack form	Recycle in to MDF or chipboard, biodegrade or burn



W/B 6th May 2024 – Scales of Production



One off production - one product is made often a prototype using highly skilled workers and expensive materials

Batch production - A small quantity of the product is made two or more up to one hundred.

Mass production - A large number of the product is made on a production line. Many hundreds of the product could be made. This is often called repetitive flow production.

Continuous production - Many thousands of the product are made. The difference between this and mass manufacturing is that continuous production is on 24 hours a day.

£0

Just in time production - The arrival of parts at just the exact time that they are required in the factory.

Architecture, bespoke machinery and wedding dresses are made this way

Seasonal goods, food, newspapers and magazines are examples of this



Examples include: cars, electronic goods and most clothing and shoes

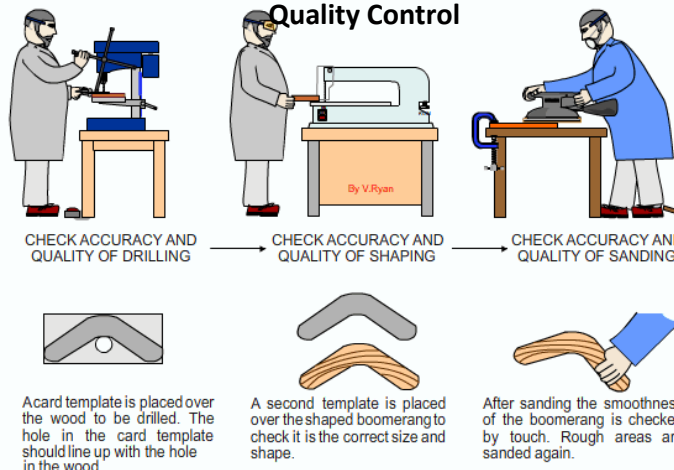


Very simple products that are only made using robots/ machines are made this way such as: nuts/bolts, screws, Lego, packaging and toiletries



Construction materials and large furniture is made using this method

W/B 13th May 2024 – Quality Control



Regulations: There are numerous organisations which take care of the public and the consumers interests. Most of these are set up by manufacturing bodies to make sure that all their members follow their voluntary code of practice. These groups give valuable direction to designers and manufacturers. The government also provides regulations by acts of parliament. One example is for Designers who need to protect their new design ideas from being copied. Copyright, patents and registered design ideas are some examples of how the designer can be protected.

Legislation - You are not normally required to remember all the details of all legislations but the following are worth bearing in mind when designing.

The Consumer Protection Act - Tries to prevent the sale of harmful or defective products.

The Consumer Safety Act - This allows the government to ban the sale of dangerous products.

The Trade Description Act - This makes it illegal to make false claims about a product.

The Weights and Measures Act - This makes it illegal to sell products which are underweight or short measures.

W/B 20th May 2024 – Production Aids

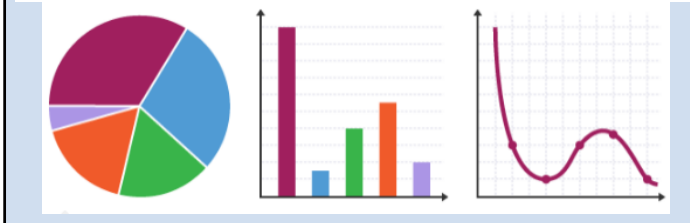
Type	Description
<p>Template</p>	<p>These can be made from paper, card or MDF and make marking out easy to do. You draw around the shape to make sure all products are identical. Templates have to be durable so they can be used over and over again. They can also be used to check accuracy when doing quality control.</p>
<p>Jig</p>	<p>Jigs are guides made from flat sheets of wood or sheet metal. They are used to make sure a work piece is put in the right place for drilling or cutting. It means that there is no need to mark out and so this speeds up production.</p>
<p>Former</p>	<p>A former is a 3D object made from MDF or clay. It is used in the vacuum former to create a 3D shape. The material must be durable, so it can be used plenty of times, be heat proof so that it doesn't melt in the machine and have no undercuts so the material doesn't get stuck.</p>
<p>Mould</p>	<p>A hollow space used to pour molten metal or molten plastic in to. The shape needs to be simple and smooth so that the work has a professional finish. The mould will be used many times to make products identical.</p>

W/B 3rd Jun 2024 – Market Research

Primary sources of information are gathered by the designer and used to help improve their designs:

- Market research** - Looking at products that already exist and talking to clients to collect a wide range of information on what is successful and what needs developing to ensure a product is viable. Interviews and questionnaires can be used to gather information on shape, colour, materials and function of existing products and the answers analysed to improve the product.
- Focus groups** - Another valuable perspective can be found by talking to the product's **target market**. Small groups can be interviewed, giving feedback before, during and after production, which can be used to improve the outcome.
- Product analysis** - Looking at products that already exist can help improve further designs by pinpointing issues to improve designs and **prototypes**.
- Anthropometrics** - Collecting maximum and minimum measurements about the target market's sizes can help improve designs by making the product easier or more comfortable to use. Anthropometric data can be used to work out the **dimensions** and **load stresses** of a product.
- Ergonomics** - Testing and analysing how a person interacts with the product can improve its functionality and how it fits into its surroundings.

Data from questionnaires can be presented visually using graphs, pie charts and tables, making it easier to analyse and summarise. Anthropometric and ergonomic details collected can be averaged out to find the sizes that fit most users. The average measurement **percentile** is typically the biggest group of users sharing a measurement.



W/B 10th Jun 2024 – Product Analysis

Primary sources of information are gathered by the designer and used to help improve their designs:

- Market research** - Looking at products that already exist and talking to clients to collect a wide range of information on what is successful and what needs developing to ensure a product is viable. Interviews and questionnaires can be used to gather information on shape, colour, materials and function of existing products and the answers analysed to improve the product.
- Focus groups** - Another valuable perspective can be found by talking to the product's **target market**. Small groups can be interviewed, giving feedback before, during and after production, which can be used to improve the outcome.
- Product analysis** - Looking at products that already exist can help improve further designs by pinpointing issues to improve designs and **prototypes**.
- Anthropometrics** - Collecting maximum and minimum measurements about the target market's sizes can help improve designs by making the product easier or more comfortable to use. Anthropometric data can be used to work out the **dimensions** and **load stresses** of a product.
- Ergonomics** - Testing and analysing how a person interacts with the product can improve its functionality and how it fits into its surroundings.

Product Analysis:

This product costs £50, which I think is a lot for a night light but some may consider that this is good value for money because you get three lights in the pack.

I think the product is aimed at young children due to the safety of the design and the cartoon rabbit shape. This product will appeal to both genders as it is gender neutral and looks like a character from a book.

This product is safe to use as it is completely sealed with no way of getting to the circuit inside. The product also charges wirelessly which reduces the risk of electric shock.

The product uses a dim light to light up dark rooms at night and can be used in bedrooms, landings, and bathrooms, which makes it safe for children to go to the toilet at night without disturbing their parents.

The product is made from smooth white plastic which would make the product safe and waterproof. It also has LEDs inside which are low energy and do not get hot. I think this product was moulded in to shape so that it was easy to mass produce.

The product is low energy which makes it good for the environment but the plastic used is a finite resource and unless recycled can cause litter and pollution.

A is for **Aesthetics**

C is for **Cost**

C is for **Customer**

E is for **Environment**

S is for **Size**

S is for **Safety**

F is for **Function**

M is for **Material**

W/B 17th Jun 2024 – Brief & Spec

The design process

Some one has an idea (the client). They employ a designer to work on the idea. The client gives a designer the design brief. The design brief is the starting point to work from. The designer then picks out important features of the design brief. One way of doing this is creating a spider diagram. This helps analyse the problem. It also helps to identify key pieces of research

Design Brief

What the product being designed and made is? Why the new product is wanted/ needed? How the product will be used? Who the product is for?

Example: The product needed is ergonomic cutlery for disabled children to use, who suffer from motor based issues (control of movement). This is important as it helps to develop children's independence and life skills. The product will be used by children between the ages of 3 -9 years old and should have the possibility of being used at home but also taken to school/ restaurants if needed.

Specification

Definition: **A list of essential and desirable things to include in a product.**

This is usually made by the designer after meeting with the client and completing all research. It can be used to evaluate how successful the product or design idea is.

Example: It is essential that the product is made from a waterproof material so that it does not absorb water (making it heavy) and make the wearer cold. It is essential that it is brightly coloured so that rescuers can easily spot the user. It is essential that the strap is adjustable and easy to use so that it can fit most people and be used in an emergency. It is desirable to include a whistle or a light to help the user to alert attention.



W/B 24th Jun 2024 - Isometrics

Isometric drawings are used to show a graphical representation of a 3D object. They are used by architects and engineers to communicate their ideas to the client and manufacturer, showing the product or design **to scale**

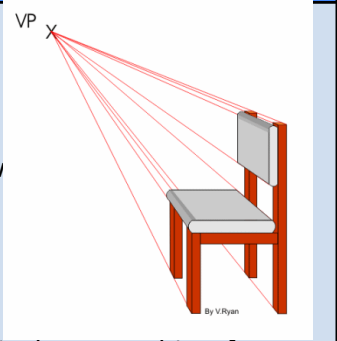
Isometric
Isometric drawings, sometimes called isometric projections, are a good way of showing measurements and how components fit together. Unlike perspective drawings, they don't get smaller as the lines go into the distance.

There are three main rules to isometric drawing:

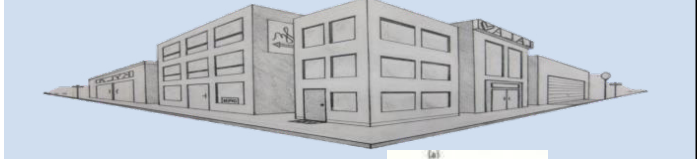
- **horizontal** edges are drawn at 30 degrees
- **vertical** edges are drawn as vertical lines
- **parallel** edges appear as parallel lines

W/B 1st July 2024 - Perspective

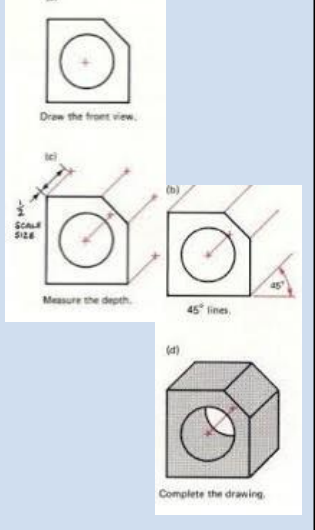
Single-point perspective - This shows an object from the front in a realistic way as it gets smaller going into the distance. The front view goes back towards a vanishing point, which is a point on the horizon line that all lines meet at.



Two-point perspective - This shows an object from the side with two vanishing points. It gives the most realistic view of a product as it shows the item edge on, as we would see it. It is often used to produce realistic drawings of an object.



Oblique projection is a simple type of technical drawing of graphical projection used for producing two-dimensional images of three-dimensional objects. The objects are not in perspective, so they do not correspond to any view of an object that can be obtained in practice, but the technique does yield somewhat convincing and useful images.



W/B 8th July 2024 – Working Drawings

Block diagram

Input	Process	Output
LDR (light sensor)	Op Amp	LED

Schematic diagram
These both show what is needed inside a circuit. The schematic diagram shows more detail on components and where to put them.

Circuit Types

Floor plan
This shows the layout of a room or building from the plan view. It shows key information such as: windows, doors and large furniture. It is used by an architect and any builders

Orthographic projection drawing
This shows a product in 2D from all sides. They are lined up with construction lines and hidden views are shown with a dashed line. These drawings are always done to scale and show dimensions in mm. It is used by engineers, designers and manufacturers.

An **orthographic projection drawing** always has at least 3 views:
Plan view (top)
Front view
Side view



COMPONENT 1 LIVE THEATRE EVALUATION

KEY TERMS

DESCRIBE - to write what you saw and heard - how actors use theatrical skills.

ANALYSE - to examine in detail by looking at the different elements and to explain it.

EVALUATE - to judge or form an opinion, e.g. explaining what effect was created and how successful it was for the audience.

KNOWLEDGE AND UNDERSTANDING OF THE PLAY

- Context of the play.
- Features of the style and genre of the play.
- The plot
- Characters
- Reviews of the play and production.
- Drama devices used.
- How relationships with other characters on stage were communicated by the actor.
- Stage Design and how the actors used it.

WRITING ABOUT DRAMA

WHAT IS A SPECIFIC EXAMPLE?

WHAT did the actor do?

WHEN did the actor do it?

HOW did the actor do it?

WHY did the actor do it?

Interaction between the actor and other characters?

The outcome for the audience.

THEATRICAL SKILLS?

PHYSICAL SKILLS

BODY LANGUAGE

POSTURE

GESTURE

MOVEMENT

SPATIAL AWARENESS

USE OF LEVELS

FACIAL EXPRESSION

EYE CONTACT

PROXEMICS

VOCAL SKILLS

PITCH

PACE

VOLUME

TONE

PROJECTION

ACCENT

INTONATION

TIMING

EMOTIONAL RANGE

DELIVERY OF LINES

COMPONENT 2 DEvised THEATRE

STYLE AND PRACTITIONERS

Naturalistic, Epic Theatre, Semi-naturalistic, Abstract, Stanislavski, Brecht, Frantic assembly

GROUP SKILLS

Choral Speech, Choral movement, Counterpoint, Repetition and Echo, Synchronised, movement/ Unison, Canon, Banners, Characterisation, Multi-role

DRAMA DEVICES

STILL IMAGE

MONOLOGUE

CROSS-CUTTING

PHYSICAL THEATRE

FLASH FORWARD

SLOW MOTION

MARKING THE MOMENT

THOUGHT-TRACK

SPLIT STAGE

MIME

NARRATION

FLASHBACK

WHAT TYPE OF GROUP MEMBER ARE YOU?

LEADER: you have ideas and are happy to express them. You enjoy being in charge. You may sometimes be frustrated if others aren't following you or disagree with you.

HELPER: you don't usually lead, but you are happy to put forward your ideas and work with others. You may assist Leaders to see their ideas through or encourage others to take part.

PASSENGER: you don't want to lead and you aren't confident about putting your ideas forward. However, you will go along with what the group wants to do.

BLOCKER: you find group work frustrating and you don't positively help the group. You might tend to argue with others, refuse to co-operate or become distracted.

REHEARSAL TECHNIQUES

Character Objectives, hot-seating, Emotional Memory, Improvisation, Character Modelling, Back-story, Research, Internal Dramatic Dialogue

Students must develop their ability to:

- ☺ carry out research
- ☺ develop their own ideas
- ☺ collaborate with others
- ☺ rehearse, refine and amend their work in progress
- ☺ analyse and evaluate their own process of creating devised drama
- ☺ realise artistic intention in devised drama



COMPONENT 2 - DEvised THEATRE

RESPONDING TO A STIMULUS

Frantic Assembly

Physical Theatre Company

Combines music, movement and text - inter-disciplinary

Chair Duets

Devised Origins

<ul style="list-style-type: none"> • What ideas generally come to mind? • What does this make you think of? • How does the stimulus make you feel? • What themes do you associate with your stimulus? • Which characters do you associate with your stimulus? • Which settings do you associate with your stimulus? 			<ul style="list-style-type: none"> • What research will you undertake? • What did you find out once you had completed research? • What do you want to show through your character? What do you want the audience to see about them? • What was the initial purpose of your piece overall? What message do you want to show? How do you want your audience to feel? 		
<p>Movement</p> <p>Gait - the way you walk. Posture - the position you hold your body when standing or sitting. Stance - the way you stand. Body Language - how you express your emotions through your body.</p>	<p>Expression</p> <p>Facial Expression - showing your character's emotion by using your face. When describing, focus on the eyes, eyebrows and mouth.</p>	<p>Gesture</p> <p>A movement, using the hand, that expresses an idea or communicates meaning. When describing, describe in detail, e.g. "I used a gesture where I outstretched my hand to show I wanted to ignore the other character."</p>	<p>Interaction</p> <p>Eye contact (or lack of). Proxemics - the distance between the characters that communicates their relationship/situation.</p>	<p>Voice</p> <p>Pitch - how high or low your voice is. Pace - how quickly you speak. Volume - how loud you speak. Use of pause - pausing before a line of speech. Tone - showing your character's emotions through your voice.</p>	<p>Audience</p> <p>What effect does this have on the audience? What do you want the audience to see/feel? How do you know your performance was successful? How did the audience react?</p>

CONSTANTIN STANISLAVSKI

NATURALISTIC

The magic 'if'	Stanislavski said that the character should answer the question, 'What would I do if I was in this situation?'. Also known as the 'magic if', this technique means that the actor puts themselves into the character's situation. This then stimulates the motivation to enable the actor to play the role.
Emotional memory	Emotional memory is when the actor finds a real past experience where they felt a similar emotion to that demanded by the role they are playing. They then 'borrow' those feelings to bring the role to life.
Subtext	The subtext is the actual meaning and motivation behind the lines that are spoken and the actions taken.
Objectives and super-objectives	An objective is the reason for our actions. What are we trying to achieve? The super-objective is an over-reaching objective, probably linked to the overall outcome in the play.
Given circumstances	The information about the character that you start off with and the play as a whole. How old is the character? What's their situation in the play and in relation to the other characters?
Method of physical actions	Imagine a simple activity like cleaning your teeth and then imagine a husband cleaning his teeth whilst deliberating on how to tell his wife about his mistress. This is a simple illustration of how a physical action can release the necessary emotions.
Realistic settings and characters	The objective of naturalism is to create a performance that is as close to real life as possible. Therefore, settings and characters should be realistic.

BERTOLT BRECHT

NON-NATURALISTIC

Verfremdungseffekt (The V effect OR the alienation effect)	Distancing the audience from becoming attached emotionally to the characters/the narrative by reminding them constantly they are watching a play. This enables the audience to think about the subject(s) and themes of the play and possibly take action rather than just being entertained.
Breaking the fourth wall	Addressing or acknowledging the audience directly in order to remind them they are watching a piece of theatre.
Gestus	Gestus is a clear character gesture or movement used by the actor that captures a moment or attitude rather than delving into emotion.
Narration	Narration is used to remind the audience that what they're watching is a presentation of a story. Sometimes the narrator will tell us what happens in the story before it has happened. This is a good way of making sure that we don't become emotionally involved in the action to come as we already know the outcome.
Placards	A placard is a sign or additional piece of written information presented on stage. Using placards might be as simple as holding up a card or banner. What's important is that the information doesn't just comment upon the action but deepens our understanding of it.
Non-linear structure	Scenes are episodic, which means they stand alone and are constructed in small chunks, rather than creating a lengthy and slow build of tension. Epic theatre often has a fractured narrative that is non-linear and jumps about in time, including flashbacks/flash-forwards.
Spass	Making jokes/including comedy to stop the audience from connecting emotionally to the characters. The audience will laugh and then question why they laughed.

Hospitality and Catering

Level 1/2 Hospitality and Catering: Unit 1-1.1.1 - Standards and ratings



Standards and ratings: You will need to be able to know the importance of standards and ratings within the hospitality and catering industry, they are hotel and guest house standards, and restaurant standards.

Hotel and guest house standards

Hotels and guest houses standards are awarded and given star ratings. You should know what criteria is needed to be met for an establishment to receive each star rating.

Star rating 1 = Basic and acceptable accommodation and facilities. Simple rooms with no room service offered.

Star rating 2 = Average accommodation and facilities, a small establishment, and would not offer room service or have a restaurant.

Star rating 3 = Good accommodation and facilities. One restaurant in the establishment, room service available between certain hours, and Wi-Fi in selected areas are provided. The establishment could have a pool and gym.

Star rating 4 = Very good accommodation and facilities. Large hotel & reception area of a very good standard. Certain hours of room service, with a swimming pool and valet parking offered.

Star rating 5 = Excellent standard of accommodation, facilities, and cuisine. Offer valet parking, 24 hr room service, spa, swimming pool, gym, and concierge service.

Restaurant standards

Restaurant standards have three main possible awards or ratings that you should know. They are listed below:

AA Rosette award

Ratings between one and five rosettes could be awarded based on the following:

- different types and variety of foods offered
- quality of the ingredients used
- where the ingredients are sourced
- how the food is cooked, presented and tastes
- skill level and techniques used as well as the creativity of the chef.



<https://www.stirkhouse.co.uk/about-us/awards/attachment/award-rosette>

Michelin star

A rating between one and three Michelin stars could be awarded based on the following:

- quality of ingredients used
- cooking and presentation techniques
- taste of the dishes
- standard of the cuisine
- value for money.



<https://guide.michelin.com/us/en/california/to-the-stars-and-beyond>

Good food guide

A rating between one and 10 could be awarded based on the following:

- cooking skills
- quality of ingredients
- techniques and cooking skills shown.

Level 1/2 Hospitality and Catering Knowledge Organiser: Unit 1: 1.1.1 - Types of Hospitality and catering provisions



Hospitality and catering providers

You must understand, be able to name, and explain the two different provisions in hospitality and catering.

Commercial: the business aims to **make profit** from the hospitality and catering provision that they provide.

Non-commercial: the service provider **doesn't aim** to make a profit from the service they provide.



Commercial (residential)

Commercial (residential): meaning the hospitality and catering provision aims to create a profit from the service they provide, but also offers accommodation.

For example:

- hotels, motels & hostels
- B&B, guest houses and Airbnb
- holiday parks, lodges, pods, and cabins
- campsites and caravan parks.

Non-commercial (residential)

Non-commercial (residential): the hospitality and catering provision offers accommodation but does not aim to make a profit from the service they provide.

For example:

- hospitals, hospices, and care homes
- armed forces
- prisons
- boarding schools, colleges, and university residences.

Commercial (non-residential)

Commercial (non-residential): catering establishments that aim to make a profit from their service, but no accommodation is provided.

For example:

- restaurants and bistros
- cafes, tea rooms and coffee shops
- takeaways
- fast food outlets
- public houses and bars
- airlines, cruise ships, long distance trains
- pop up restaurants
- food and drink provided by stadiums, concert halls and tourist attractions
- mobile food vans and street food trucks
- vending machines.

Non-commercial (non-residential)

Non-commercial (non-residential): catering establishments with no accommodation provided and don't aim to make a profit from their service.

For example:

- schools, colleges, and universities
- meals on wheels
- canteen in working establishments (subsidised)
- charity run food providers.





Types of service in commercial and non-commercial provision

You need to be able to understand and know the different types of service within commercial and non-commercial provision. They are split into two main categories of food service and residential service.



Food service

The different types of food services in the catering sector are listed below. You should know the meaning of each one and be able to provide examples. For instance;

Table service

- Plate: the food is put on plates in the kitchen and served by waiting staff. Good portion control and food presentation consistent.
- Silver: a waiter will transfer food from a serving dish to the customer's plate using a silver spoon and fork at their table.
- Banquet: a range of foods suitable for large catered events such as weddings, parties, or award ceremonies.
- Family style: the food is placed on serving bowls on the customer's table for customers to share between them.
- Gueridon: is served from a trolley to the customer's table, the food is then cooked and/or finished and presented in front of the customer. Creates an atmosphere of sophistication and entertainment.

Counter service

- Cafeteria: all types of food and drink are shown on a long counter for customers to move along with a tray for them to choose what they want to eat.
- Fast food: the food and drink is displayed on a menu behind the counter, often with pictures. Quick, simple, and usually served with disposable packaging.
- Buffet: a range of foods served on a big serving table where customers walk up to collect their plate and help themselves to food and drink. The food can be hot or cold, and some items could be served by waiting staff.

Personal service

- Tray or trolley: the meals are served on trays from a trolley and customers sometimes order items in advance.
- Home delivery: the customer's order is made over the phone or online, and is then delivered by the business to their address.
- Takeaway: food that's cooked by the business onsite and then eaten elsewhere.

Residential service

Listed below are the different types of residential types of service in the hospitality and catering sector. You should know the different types of service offered in various hospitality provisions.

Rooms:

- single/ double/ king/ family
- suite (en-suite bath/ shower room, shared facilities).

Refreshments:

- breakfast/ lunch/ evening meal
- 24-hour room service/ restaurant available.

Leisure facilities:

- spa
- gym
- swimming pool.

Conference and function facilities:

- large rooms
- overhead projector and computer
- pens and paper provided
- refreshments available.



Level 1/2 Hospitality and Catering: Unit 1-1.1.2 -

Types of employment roles and responsibilities within the industry



Types of employment roles and responsibilities within the industry

There are four main areas within the industry that you should know the roles and responsibilities within. They are listed below:



Front of house

- Front of house manager: oversees all staff at the restaurant, provides training, hiring of staff, and ensures good customer service.
- Head waiter: oversees the waiting staff of the restaurant in high-end eating establishments.
- Waiting staff: greets customers, shows them their table, takes food and drink orders from customers, and serves them their order. Makes sure customers' needs are met, and that the food order is made correctly.
- Concierge: advises and helps customers with trips and tourist attractions. Books taxis for customers and parks customer cars.
- Receptionist: takes bookings, deals with questions and complaints from customers, checks-in customers, takes payment, and provides room keys.
- Maître d'hôte: oversees the service of food and drinks to customers. They greet customers, check bookings, reservations, and supervise waiting staff.

Kitchen brigade

- Executive chef: in charge of the whole kitchen, developing menus and overlooking the rest of the staff.
- Sous-Chef: the deputy in the kitchen and is in charge when the executive chef isn't available.
- Chef de partie: in charge of a specific area in the kitchen.
- Commis chef: learning different skills in all areas of the kitchen. Helps every chef in the kitchen.
- Pastry chef: prepares all desserts, pastry dishes and bakes.
- Kitchen assistant: helps with the peeling, chopping, washing, cutting of ingredients, and helps washing dishes and stored correctly.
- Apprentice: an individual in training in the kitchen and helps a chef prepare and cook dishes.
- Kitchen porter/ plongeur: washes the dishes and other cleaning duties.

Housekeeping

- Chambermaid: cleans guests' rooms when they leave, and restocks products that have been used, they also provide new bedding and towels.
- Cleaner: cleans hallways and the public areas of the establishment.
- Maintenance: repairs and maintains the establishment's machines and equipment, such as heating and air conditioning. These responsibilities could also include painting, flooring repair or electrical repair.
- Caretaker: carries out the day to day maintenance of the establishment.



Management

- Food and beverage: responsible for the provision of food and drink in the establishment which will include breakfast, lunch, dinner, and conferences.
- Housekeeping: ensuring laundering of bed linen & towels, ordering of cleaning products and overseeing housekeeping staff duties.
- Marketing: promotes events and offers to increase custom at the establishment, and is responsible for the revenue of the business.



Level 1/2 Hospitality and Catering: Unit 1-1.1.3 - Working conditions in the hospitality and catering industry



Types of employment contracts and working hours

You need to know the following types of employment contracts and working hours.

- **Casual:** this type of contract could be provided through an agency and used to cover employees that are absent from work due to illness. There is no sick pay or holiday entitlement with this type of employment.
- **Full time (permanent):** working hours including start and finishing times are fixed and stated in this type of contract. A contract of this nature allows the employee to have sick pay and holiday entitlement.
- **Part-time (permanent):** working hours mean that the employee works on certain days of the week. Work times are stated in the contract, including the starting and finishing times that are fixed in this type of contract. The employee has sick pay and holiday entitlement in this type of contract.
- **Seasonal:** this type of contract is used when a business needs more staff due to busy times throughout the year, such as the Christmas period. The contract will state for the employee to work for a specific time frame only. Also, the contract would not expect further or regular work after the contract is complete.
- **Zero hours contract:** this type of contract is chosen between the employer and the employee. This means that the employee can sign an agreement to be available for work when the employer needs staff. No number of days or hours is stated in the contract and the employer doesn't require to ask the employee to work, and neither does the employee have to accept the work offered. No sick pay or holiday entitlement is offered for this type of contract.



Pay and benefits in the industry

The following pay and benefits are what you should be aware of in the industry.

- **A salary:** this type of pay is a fixed amount of money paid by the employer monthly, but is often shown as an annual sum on the contract.
- **Holiday entitlement:** employees are entitled to 28 days paid a year. Part-time contracts are entitled less depending to their contract hours.
- **Pension:** on retirement age, an employee qualifies for a pension contribution by the employer and the government.
- **Sickness pay:** money paid to the employee with certain contracts when they are unable to go to work due to illness.
- **Rates of pay:** national minimum wage should lawfully be offered to all employees over 18 years of age. This rate is per hour and is reviewed each year by the government.
- **Tips:** money given to an employee as a 'thank you' reward for good service from the customer.
- **Bonus and rewards:** given from an employer to the employee as a way of rewarding all the hard work shown from the employee throughout the year, and helping make the business a success. Also known as remuneration.

Working hours

The working hours directive in the UK states that employees on average cannot work more than 48 hours which is worked out over a period of 17 weeks. Employees can choose not to follow this and work more hours if they want to.

People under the age of 18 cannot work more than eight hours a day and 40 hours a week.

Employees that work six hours or more a day must have a break of 20 minutes, and have the right to have at least one day off every week.

Level 1/2 Hospitality and Catering: Unit 1-1.3.1 - Health and safety in hospitality and catering provisions



Control of Substances Hazardous to Health Regulations (COSHH) 2002

What employers need to do by law	What paid employees need to do
Control substances that are dangerous to health.	Attend all training sessions regarding COSHH.
Provide correct storage for those substances and appropriate training for staff.	Follow instructions carefully when using the substances.
Some examples of substances that are dangerous to health include cleaning products, gases, powders & dust, fumes, vapours of cleaning products and biological agents.	Know the different types of symbols used to know different types of substances and how they can harm users and others when used incorrectly.

Health and Safety at Work Act 1974 (HASAWA)

What employers need to do by law	What paid employees need to do
Protect the health, wellbeing and safety of employees, customers and others.	Take reasonable care of their own health and safety and the health and safety of others.
Review and assess the risks that could cause injuries.	Follow instructions from the employer and inform them of any faulty equipment.
Provide training for workers to deal with the risks.	Attend health and safety training sessions.
Inform staff of the risks in the workplace.	Not to misuse equipment.

Personal Protective Equipment at Work Regulations (PPER) 1992

What employers need to do by law	What paid employees need to do
Provide PPE e.g. masks, hats, glasses and protective clothes.	Attend training and wear PPE such as chef's jacket, protective footwear and gloves when using cleaning chemicals.
Provide signs to remind employees to wear PPE.	
Provide quality PPE and ensure that it is stored correctly.	

Report of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013

What employers need to do by law	What paid employees need to do
Inform the Health and Safety Executive (HSE) of any accidents, dangerous events, injuries or diseases that happen in the workplace.	Report any concerns of health and safety matters to the employer immediately. If nothing is resolved, then inform the HSE.
Keep a record of any injuries, dangerous events or diseases that happen in the workplace.	Record any injury in the accident report book.

Manual Handling Operations Regulations 1992

What employers need to do by law	What paid employees need to do
Provide training for staff.	Ask for help if needed.
Assess and review any lifting and carrying activities that cannot be avoided.	Squat with feet either side of the item. Keep back straight as you start to lift. Keep the item close to your body whilst walking. Make sure you can see where you're going.
Store heavy equipment on the floor or on low shelves.	
Provide lifting and carrying equipment where possible.	

Risks to health and security including the level of risk (low, medium, high) in relation to employers, employees, suppliers and customers

Review and assess level of risks in the workplace e.g. slips, trips, falls, burns etc by completing a risk assessment to avoid from happening.

Level 1/2 Hospitality and Catering: Unit 1-1.3.2 - Food safety



Hazard Analysis and Critical Control Points (HACCP)

Every food business lawfully needs to ensure the health and safety of customers whilst visiting their establishment. To ensure this, they need to take reasonable measures to avoid risks to health. HACCP is a food safety management system which is used in businesses to ensure dangers and risks are noted and how to avoid them.

All food businesses are required to:

- assess and review food safety risks
- identify critical control points to reduce or remove the risk from happening
- ensure that procedures are followed by all members of staff
- keep records as evidence to show that the procedures in place are working.

Food Hazards

A food hazard is something that makes food unfit or unsafe to eat that could cause harm or illness to the consumer. There are three main types of food safety hazards:

- **Chemical** – from substances or chemical contamination e.g. cleaning products.
- **Physical** – objects in food e.g. metal or plastic.
- **Microbiological** – harmful bacteria e.g. bacterial food poisoning such as Salmonella.

HACCP table

Here is an example of a HACCP table – it states some risks to food safety and some control points.

Hazard	Analysis	Critical Control Point
Receipt of food	Food items damaged when delivered / perishable food items are at room temperature / frozen food that is thawed on delivery.	Check that the temperature of high-risk foods are between 0°C and 5°C and frozen are between -18°C and -22°C. Refuse any items that are not up to standard.
Food storage (dried/chilled/frozen)	Food poisoning / cross contamination / named food hazards / stored incorrectly or incorrect temperature / out of date foods.	Keep high-risk foods on correct shelf in fridge. Stock rotation – FIFO. Log temperatures regularly.
Food preparation	Growth of food poisoning in food preparation area / cross contamination of ready to eat and high-risk foods / using out of date food.	Use colour coded chopping boards. Wash hands to prevent cross-contamination. Check dates of food regularly. Mark dates on containers.
Cooking foods	Contamination of physical / microbiological and chemical such as hair, bleach, blood etc. High risk foods may not be cooked properly.	Good personal hygiene and wearing no jewellery. Use a food probe to check core temperature is 75°C. Surface area & equipment cleaned properly.
Serving food	Hot foods not being held at correct temperature / foods being held too long and risk of food poisoning. Physical / cross-contamination from servers.	Keep food hot at 63°C for no more than 2 hours. Make sure staff serve with colour coded tongs or different spoons to handle food. Cold food served at 5°C or below. Food covered when needed.

Level 1/2 Hospitality and Catering: Unit 1: Contributing factors to the success of hospitality and catering provision (AC1.4)



Contributing factors

The hospitality and catering sector is very competitive, and many businesses fail in the first year of operation. There are many factors that must be managed carefully for hospitality and catering businesses to make a profit and continue to operate in the long term.

Basic costs

Labour: These costs include employee wages, National Insurance contributions and pension contributions.

Material: These costs include decoration, furnishings, kitchen and dining equipment, ingredients, printing and health and safety equipment.

Overheads: These costs include rent, rates, gas and electricity, insurance, licensing, training and maintenance.

Economy

The value of the pound (£) can affect the hospitality and catering sector. If the economy is good, people will be willing to spend more. If the economy is weak (recession), people may decide that eating out or going on holiday is a luxury and will spend less.

VAT (Value Added Tax) is added to the final cost of goods and services offered in the hospitality and catering sector. The money from VAT goes to the government to pay for services everyone uses for example the NHS.

Environmental impact

Running a hospitality or catering provision uses a lot of resources. Businesses are encouraged to **reduce, reuse, and recycle**. Energy efficient equipment such as low energy light bulbs can save a business money. Using local and seasonal ingredients reduces the amount of CO₂ released into the atmosphere during transport. All waste should be separated and recycled or composted when possible.

Profit

Gross Profit: The difference between how much a menu item costs to make and how much it sells for. Ingredient costs should not be more than 30% of the gross profit. If the ingredient cost for a chocolate brownie dessert is £1.50 and the menu price is £4.50, the gross profit is £3.00.

Gross Profit % = $(3.00 \div 4.50) \times 100 = 66.6\%$

Net Profit = What is left from the gross profit once all costs (as listed above) are covered.

New technology

New technologies have benefitted the sector in positive ways. These include:

- **cashless systems** such as contactless cards and mobile payment apps
- **digital systems** such as online booking/ordering and key cards
- **office software** such as stock ordering systems.

Media

The hospitality and catering sector is very competitive, so most businesses try to make good use of the media to advertise. Most businesses will have their own **website**, which customers can use to view menus and make bookings.

- **Print Media:** Ads in magazines and newspapers, flyers and money-off vouchers.
- **Broadcast media:** Television, radio and online ads.
- **Social media:** Customer feedback and reviews.

Consumers are increasingly using smartphones to book, order, pay and review.

Level 1/2 Hospitality and Catering: Unit 1:

The operation of front and back of house: Front of house (AC2.2)



Operational requirements

To run a successful hospitality and catering business, it is important that the front of house is welcoming to all customers. A logical layout and workflow will mean that the customers will be able to enjoy organised, efficient service.

In a catering establishment such as a café, the front of house is where the customers are served.

In a residential establishment such as a hotel, the front of house is where guests are received before checking in to their room.

Catering and residential establishments have common front of house areas, which help to ensure a smooth operation of the business.

Front of house dress code

The front of house dress creates a first impression. In some establishments a **uniform** may be worn. In other establishments, employees may be required to wear colours such as black and white. In addition:

- clothing must be clean and ironed
- if worn, jewellery, perfume and make-up must be minimal
- personal hygiene must be maintained
- name badges may be required.

Restaurant workflow

The workflow should be organised so that orders can be filled, and food can be passed from the kitchen as quickly as possible.

Reception: Guests are greeted and shown to their seats in the dining area.

Seating/dining area: In a large restaurant, this area is divided into **stations**. Each station is managed by a waitperson.

Counter service: Food is on display for customers to choose and pay at the end. Some restaurants also offer seated counter service.

Bar: An area for socialising or eating in a less formal space.

Equipment station: Small items such as cutlery and serviettes and food items such as condiments should be available to wait staff.

Toilets: Customer toilets should be clean and welcoming.

Safety Equipment: First aid boxes and fire extinguishers must be easily accessed.

Hotel workflow

The workflow of a hotel should be organised so that guests can be checked in as quickly as possible.

Reception: Guests are checked in and receive keys/key cards for their room.

Lobby/waiting area: This area should have comfortable seating for the guests. Drinks may be available in the lobby.

Stairs/Lifts: These provide access to rooms and other facilities.

Toilets: Customer toilets should be clean and welcoming.

Administration and documents

Businesses may employ an administrator who keeps track of:

- staff employment and training records
- stock orders, delivery records and invoices
- health and safety documents
- financial information
- customer feedback
- advertising.

Level 1/2 Hospitality and Catering: Unit 1:

The operation of the kitchen: Equipment (AC2.1)



Kitchen equipment

It is important that a business invests in good quality kitchen equipment to produce food safely. Even though good quality equipment is expensive, for example stainless steel pots and pans, in the long run they will pay for themselves as they should not need to be replaced often. Good quality electrical equipment will cost less to run, which will also save money and increase profits.

Large equipment

Storage:	walk-in fridge, freezer, blast chiller, glass chiller.
Preparation:	floor standing food mixer.
Cooking:	conventional oven, deep fat fryer, hot water urn, standing <i>bain-marie</i> , hot plate/griddle, steamer, grill/salamander.
Cleaning:	pass-through dishwasher, glass washer.

Mechanical equipment

Preparation:	weighing scales, electric whisk, food processor, blender, mincer, meat slicer, vegetable peeler, juicer, ice cream maker.
Cooking:	temperature probes.
Specialist equipment:	conveyor toaster, panini maker, coffee maker, pizza oven, <i>sous vide</i> , pasta maker.

Small equipment

Preparation:	mixing bowls, measuring jugs and spoons, whisks, spatulas, sieves, knives, chopping boards, zester, juicer, piping bags and tips, graters.
Cooking:	pots and pans, baking dishes, baking trays, tongs, colanders.
Serving:	plates, bowls, glassware.

Cleaning and safety materials and equipment

Cleaning:	detergents, cleaning chemicals, scouring pads, cloths, mops, dustpan and brush, buckets, recycling and waste bags and bins.
Preparation:	date labels for food storage, foil, baking paper.
Safety:	fire extinguisher/blanket, smoke/CO ₂ alarm, first aid box, oven gloves.

Level 1/2 Hospitality and Catering: Unit 1: The operation of the kitchen (AC2.1)



Operational requirements

To run a successful hospitality and catering business, it is important that the back of house is well designed to allow safe working conditions for the kitchen staff. A good workflow also allows the safe movement of front of house staff between the kitchen and dining room so that customers enjoy efficient food service.

Kitchen workflow

Delivery area	Located at the kitchen entrance. Deliveries are checked against the order and temperatures of high-risk foods are recorded.
Storage area	Cool area: contains fridges and freezers for storing high-risk foods, as well as space for storing fresh fruit and vegetables. Dry area: for storing canned and dry goods.
Staffing area	A separate area where employees can change into work clothing. Staff toilets and hand washing facilities are provided. This area may also be used as a breaktime lounge.
Preparation area	A large kitchen will have separate areas for the preparation of meat and poultry, fish, fruits and vegetables and pastries and desserts.
Cooking area	A large kitchen will have separate cooking areas for hot wet foods such as soups, sauces and steamed vegetables and a dry cooking area for roasting, baking, grilling and frying.
Serving area	A large kitchen will have separate areas for plating and presenting hot and cold foods. Waiters will collect orders from "the pass" to deliver to customers in the restaurant.
Cleaning area	This area should be separate from the main kitchen. Dirty crockery and cutlery as well as pots and pans from the kitchen are cleaned and stored in this area.
Waste area	This area should be separate from the main kitchen. Food waste and recyclable and non-recyclable waste is sorted and then disposed in the correct bins, which should be located outside.

Back of house dress code

The traditional chef's uniform is designed to show authority in the kitchen. Known as "chef's whites", they come in many colours. Key uniform items are: a long-sleeved, double-breasted jacket, long trousers, head covering, apron, and non-slip, toe-protected shoes. The clothing and shoes protect the wearer from injury while the head covering protects the food from hair and sweat.

Level 1/2 Hospitality and Catering: Unit 1: Food related causes of ill health (AC4.1)



Food related causes of ill health

Ill health could be caused by any of the following:

- **bacteria**
- **allergies**
- **intolerances**
- **chemicals** such as:
 - detergent and bleach
 - pesticides and fertilisers.

Intolerances

Some people feel unwell when they eat certain foods. Common foods that cause intolerance include:

- milk (lactose)
- cereals (gluten)
- artificial sweeteners (Aspartame)
- flavour enhancers (MSG).

Food poisoning bacteria

The main causes of food poisoning bacteria are:

- **Bacillus cereus**: found in reheated rice and other starchy foods.
- **Campylobacter**: found in raw and undercooked poultry and meat and unpasteurised milk.
- **Clostridium perfringens**: found in human and animal intestines and raw poultry and meat.
- **E-coli**: found in raw meat, especially mince.
- **Listeria**: found in polluted water and unwashed fruit and vegetables.
- **Salmonella**: found in raw meat, poultry and eggs.
- **Staphylococcus aureus**: found in human nose and mouth.

Food and the law

Food can cause ill-health if it is stored, prepared and/or cooked incorrectly or if a person unknowingly eats a food that they are allergic or intolerant to. All hospitality and catering provision need to follow laws that ensure food is safe to eat. They are:

- **Food Labelling Regulations (2006)**: A label must show all ingredients including allergens, how to store and prepare the food, where it came from, the weight of the food and a use-by or best-before date.
- **Food Safety (General Food Hygiene Regulations) 1995**: This law makes sure that anyone who handles food - from field to plate – does so in a safe and hygienic way. The **HACCP** system is used throughout the hospitality and catering sector.
- **Food Safety Act 1990**: This law makes sure that the food people it is safe to eat, contains ingredients fit for human consumption and is labelled truthfully.

Food allergies

An allergy is a reaction to something found in food. In the case of a severe allergy, the reaction can lead to death.

Common allergens include:

Cereals	Eggs	Seeds
Soya	Fish and shellfish	Strawberries
Peanuts	Wheat	Milk and dairy
Celery	Tree nuts	Mustard

Level 1/2 Hospitality and Catering:

Unit 1: Symptoms and signs of food-induced of ill-health (AC.4.2)



Symptoms and signs of food-induced ill-health:

An "upset tummy" is a familiar symptom for someone who thinks they might have food poisoning; this is known as a non-visible symptom. There are many other signs and symptoms that could show that a person might be suffering from ill-health due to the food they have eaten. Some of the symptoms can be seen (visible symptoms) such as a rash. It is important to be able to recognise visible and non-visible symptoms to help someone suffering from food-induced ill-health.

Visible symptoms

Visible symptoms of food poisoning, chemical poisoning, allergic reaction and food intolerance include:

- **Diarrhoea:** a common symptom of most types of food poisoning bacteria and can also be a symptom of lactose intolerance.
- **Vomiting:** a common symptom of most types of food poisoning bacteria, but may could also be caused by taking in chemicals accidentally added to food.
- **Pale or sweating/chills:** a high temperature is a common symptom of E-coli and Salmonella.
- **Bloating:** a symptom of lactose intolerance.
- **Weight loss:** a symptom of gluten intolerance (coeliac disease).

Allergic/anaphylactic reaction

- **Visible symptoms:** red skin, a raised rash, vomiting, swelling of lips and eyes and difficulty breathing.
- **Non-visible symptoms:** swelling of tongue and throat, nausea (feeling sick) and abdominal pain.
- **Anaphylaxis:** a severe reaction to eating an allergen that can lead to death. An injection of adrenaline (for example, an EpiPen) is the treatment for an anaphylactic reaction.

Non-visible symptoms

Non-visible symptoms of food poisoning, chemical poisoning, allergic reaction and food intolerance include:

- **Nausea (feeling sick):** the most common symptom for all types of food-induced ill-health.
- **Stomach-ache/cramps:** abdominal pain is common symptom of lactose intolerance as well as a sign of an allergic reaction. Cramps may happen at the same time as diarrhoea.
- **Wind/flatulence:** a common symptom of lactose intolerance.
- **Constipation:** a symptom of Listeria food poisoning.
- **Painful joints:** a symptom of E-coli food poisoning.
- **Headache:** a symptom linked to Campylobacter, E-coli and Listeria.
- **Weakness:** non-stop vomiting, and diarrhoea can leave a person feeling weak. Gluten intolerance (coeliac disease) can leave a person feeling tired because their bodies can't absorb the correct amount of nutrients.



Preventing cross-contamination

Food poisoning bacteria can easily be transferred to high-risk foods. This is called cross-contamination. It can be controlled by:

- washing hands before and after handling raw meat and other high-risk foods.
- using colour-coded chopping boards and knives when preparing high-risk foods.
- washing hands after going to the toilet, sneezing, or blowing your nose and handling rubbish.

Preventing physical contamination

Physical contamination is when something which is not designed for eating ends up in your food. Physical contaminants include hair, seeds, pips, bone, plastic packaging, plasters, broken glass, flies and other insects, tin foil and baking paper, soil, and fingernails.

Physical contamination can be controlled by:

- food workers following personal hygiene rules
- keeping food preparation and serving areas clean
- checking deliveries for broken packaging
- thoroughly washing fruits and vegetables before preparation
- using tongs or gloves for handling food.

Temperature control

Delivery	Storage	Preparation	Service
<p>The temperature of high-risk foods must be checked before a delivery is accepted. The food should be refused if the temperatures are above the safe range.</p> <p>Refrigerated foods = 0-5°C Frozen foods = -22°C to -18°C</p>	<p>High-risk foods must be covered and stored at the correct temperature. Temperatures must be checked daily.</p> <p>Refrigerator = 0-5°C Freezer = -22°C to -18°C</p> <p>Unwashed fruit and vegetables must be stored away from other foods.</p>	<p>High risk-foods need to be carefully prepared to avoid cross-contamination. A food probe can be used to make sure that high-risk foods have reached a safe core (inside) temperature, which needs to be held for a minimum of two minutes.</p> <p>Core temperature = 70°C</p>	<p>Food needs to be kept at the correct temperature during serving to make sure it is safe to eat. Hot food needs to stay hot and cold food needs to stay chilled.</p> <p>Hot holding = 63°C minimum Cold holding = 0-5°C</p>



Role of the Environmental Health Officer (EHO)

The role of the Environmental Health Officer (EHO) is to protect the health and safety of the public. They are appointed by local authorities throughout the UK. In the hospitality and catering industry, they are responsible for enforcing the laws linked to food safety. They inspect all businesses where food is prepared and served to members of the public, advise on safer ways of working and can act as enforcers if food safety laws are broken.

EHO inspections

The EHO can carry out an inspection of any hospitality and catering premise at any time during business hours – they do not need to make an appointment. During an inspection, the EHO will check to make sure that:

- the premises are clean
- equipment is safe to use
- pest control measures are in place
- waste is disposed properly
- all food handlers have had food hygiene and safety training
- all food is stored and cooked correctly
- all food has best-before and use-by dates
- there is a HACCP plan to control food hazards and risks.

The EHO is allowed to:

- take photographs of the premises
- take food samples for analysis
- check all record books, including fridge and freezer temperatures, cleaning schedules and staff training
- offer advice on improving food hygiene and safety in the business.

EHO and the law

If the EHO discovers problems with the food safety and hygiene in the premise, they are allowed by law to:

- remove any food that may be hazardous so it can't be sold
- tell the owners to improve hygiene and safety within a set time and then come back and re-inspect
- close the premises if there is a risk to health of the public
- give evidence in a court of law if the owners are prosecuted for breaking food hygiene and safety laws.

Complaints by the public

The EHO will immediately investigate any complaints of suspected food poisoning linked to a particular premise.

Hygiene ratings

When an inspection has been carried out, the EHO will give the business a food hygiene rating. The ratings are published on the Food Standards Agency website as well as on stickers displayed at the business. A rating of 5, or very good, represents the highest standard of food hygiene.

MUSIC

Component 2: Music Skills Development

Learning Outcome A: Demonstrate professional & commercial skills for the music industry

Learners will explore professional techniques for musicians and look at how musicians share their music with others. They will learn to use a variety of methods of evidencing processes and outcomes and communicating skills development.

A1 Professional skills for the music industry

- Learners will explore the expectations and professional skills required to succeed in the industry:
 - o time management
 - o self-discipline
 - o working with others
 - o correct and safe use of equipment
 - o identifying resources required
 - o auditing existing skills and maintaining a development plan.

A2 Planning and communicating music skills development

- Planning development processes.
- Strategies for skills development.
- Managing equipment and resources.
- Methods of capturing musical development, such as:
 - o digital or traditional portfolios, including studio track sheets, production notes, rehearsal diaries, screenshots, key milestone performances and reviews from others
 - o recorded auditions
 - o compositional sketches
 - o raw recordings
 - o drafts
 - o application of effects
 - o initial mixes.
- Having a clear and organised approach to communicating:
 - o key points in the process are referenced and in a logical order
 - o images, videos and recordings are clear
 - o written commentary supports the quality of work.
- Sharing and commenting on work:
 - o social media, e.g. Soundcloud TM, FacebookTM, YouTubeTM
 - o jam sessions, improvisation sessions, mixtapes, demos, sharing samples, remixing and reworking, white label, remote collaboration.

Learning outcome B: Apply development processes for music skills and techniques

Learners will participate in workshops and sessions to identify and develop musical skills and techniques in the following three disciplines:

1. Music performance
2. Creating original music
3. Music production.

They will then select and develop their individual musical and professional techniques appropriate to context and style and demonstrate the application of these skills and techniques in the creation of musical outcomes across two of the three disciplines.

B1 Development of technical music skills and techniques

- Development processes:
 - o individual development routines
 - o identifies technical exercises for development
 - o includes setting goals
 - o includes monitoring and tracking of progress.

B2 Development of music skills and techniques

- Developing musical skills appropriate to style and context, such as:
 - o timing and phrasing
 - o using rhythm and pitch in the creation or recreation of music
 - o using equipment, instrumentation or software appropriately
 - o expression
 - o combining instruments/sounds
 - o health and safety in the use of equipment and/or instruments.
- Applying skills development to the creation of content/material:
 - o creative intentions
 - o skills needed
 - o stylistic accuracy
 - o creation of content/material.
- Music performance:
 - o tuning (if appropriate)
 - o learning repertoire
 - o physical preparation and exercises
 - o instrumental or vocal technique
 - o practise routines such as scales, etc.
 - o following accompaniment
 - o stage presence.
- Creating original music:
 - o exploring and extending ideas
 - o using structure effectively
 - o using rhythmic and melodic patterns
 - o development of harmony.
- Music production:
 - o using software instruments
 - o using audio and software tools
 - o manipulation techniques
 - o inputting and editing audio
 - o using effects
 - o structuring music.

Skills and Techniques

Classification of Skills – Open and Closed

<p>Open</p>	<p>These are skills that are affected by the environment. These occur when performers have to make decisions and adapt their skills to a changing or unpredictable environment. The performer is not in control of what will happen next.</p> <p>An example would be making a pass in Ultimate Frisbee.</p>
<p>Closed</p>	<p>These are skills that are not affected by the environment. They are usually self-paced and occur in fixed or predictable situations. The performer uses exactly the same technique every time and is in control of what happens next.</p> <p>An example would be a gymnast performing a floor routine.</p>



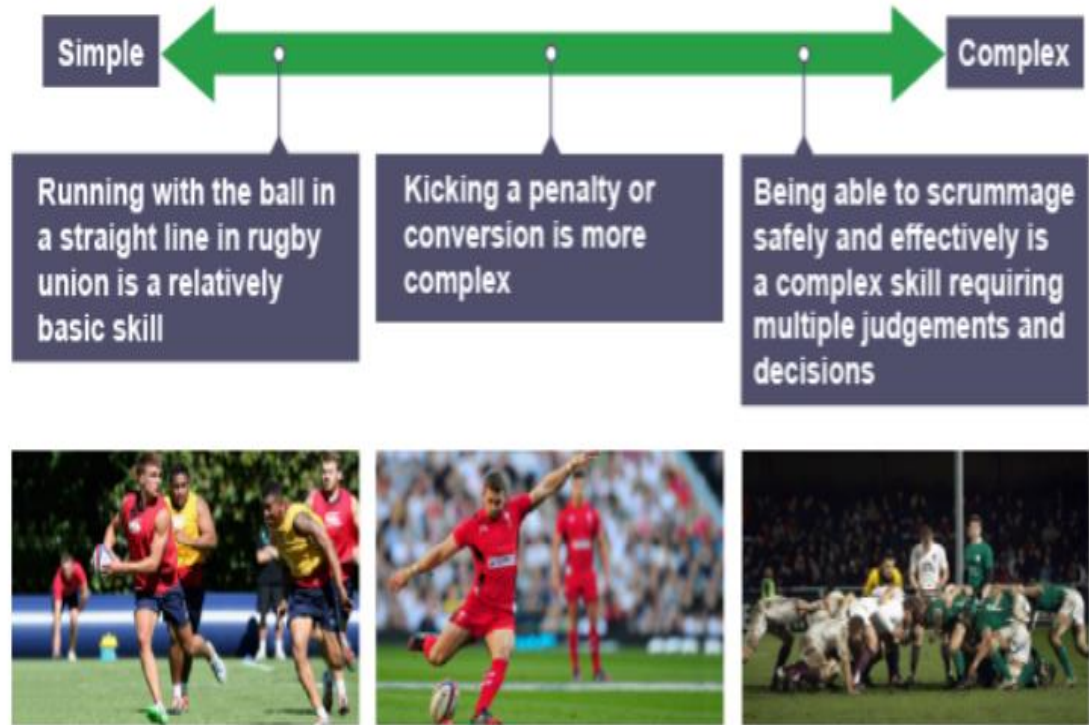
Definition – Skills are having an ability to do something well or with expertise

Definition – Techniques are the execution or performance of a particular procedure

Skills and Techniques

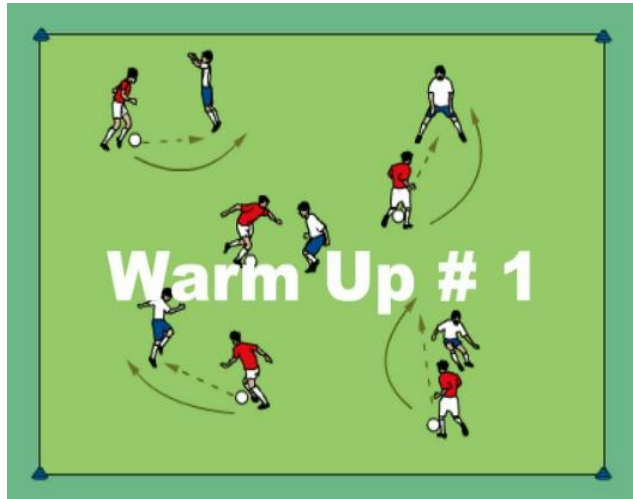
Classification of Skills – Complex and Simple

<p>Complex</p>	<p>These are skills where the performer doesn't have to process much information or make many decisions. The skill has only a small number of parts (or sub-routines) and doesn't require much feedback during its performance. An example of a simple skill is sprinting</p>
<p>Simple</p>	<p>These are skills where the performer has to process lots of information and make lots of decisions. The skill has many sub-routines (or parts) to it and requires a lot of feedback during its performance. An example of a complex skill is a tennis serve.</p>



Definition – Skills are having an ability to do something well or with expertise

Definition – Techniques are the execution or performance of a particular procedure



Leadership Session Planning

Leadership Session Component

Learning Outcomes	<ul style="list-style-type: none"> Knowing how to perform Doing the performing
Warm Up	<ul style="list-style-type: none"> Pulse Raiser Stretches Skill Related Activity
Drills	<ul style="list-style-type: none"> Activities that focus on the target skill you are leading e.g Passing in Football
Main Activity	<ul style="list-style-type: none"> Longer activity which focuses on target skill you are leading e.g Possession Netball
Cool Down	<ul style="list-style-type: none"> Reducing Heart Rate Stretches
Plenary	<ul style="list-style-type: none"> What went well? Even better if?





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YOUNGMINDS
fighting for young people's mental health



ChildLine
0800 1111 

THE MIX

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www.themix.org.uk | 0808 808 4994

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In School



Speak to your Tutor

Find a member of staff with an Orange Lanyard

Speak to any member of staff



Use the 'Safeguarding Concern Form'
on your school desktop page

Speak to your Head of House
or Pastoral Manager