



# Year 9

# Knowledge Organiser

## Term 2: 2020

Name: \_\_\_\_\_



# Knowledge Organiser

- 1 English
- 2 Maths
- 3 Science
- 4 Art
- 5 Catering
- 6 Computing
- 7 Drama
- 8 Engineering
- 9 French
- 10 Geography
- 11 History
- 12 Media
- 13 Music
- 14 PD
- 15 PE
- 16 RE
- 17 Spanish

PLOT				ENGLISH FACULTY				CHARACTERS									
Part 1				Smith feels frustrated by the oppressive government of the Party, who watch citizens everywhere they go and have complete control over all aspects of life, including physical activity and sex. He starts to write in a diary, an act which is forbidden by the Party. Smith has dreams of his childhood, and a potential future, and fixates on O'Brien (an Inner Party member) as a possible help in his battle against Big Brother. Smith's work in the Department of Records helps the Party to change history, ensuring that BB has never been wrong. He worries about the constant watching of a girl from the Department of Fiction. Smith tries to remember what life was like before the Party took power, using a child's history book, and remembers a time when he held definite proof of a party lie in his hands – a photograph of three men who have since been "disappeared", and no longer officially exist. Smith believes that the only hope for the future lies with the Proles, as they are the majority, and decides that true freedom is the freedom to think for oneself. Smith goes for a walk in the prole district and buys a paperweight from a junk shop, the same place where he bought his diary.				<b>Winston Smith</b>		A 39 year old employee of the Party who begins to turn against the government.							
Part 2				Smith notices that the girl has her arm in a sling, and when passing her on a corridor, she drops him a note that reads "I love you". He cannot tell if this is real or a trap by a spy. He manages to sit at the same table as her at lunch a few days later, and they plan to meet during a mass meeting in Victory Square, where their conversation will be more easily hidden from the telescreens. They witness Eurasian prisoners being driven through the square, and arrange to meet at a place the girl knows in the country. When they meet, she appears very confident that they will not be observed, and very experienced in secret encounters. He learns her name is Julia, and that she has no interest in overthrowing the Party, but aims to rebel in her own selfish and small ways. Smith rents a small room over the junk shop for their future meetings, even though he knows this is a bad idea. The people prepare for Hate Week, while Smith and Julia discuss the mysterious Brotherhood and the chances of rebellion. Smith finally has contact with O'Brien, who extends an invitation to his home, which Smith hopes will lead to joining the Brotherhood. Smith and Julia accept that they will inevitably be captured, tortured and killed, but agree that they will never betray their love. At O'Brien's, the telescreen is turned off, and Julia and Smith are invited to join the Brotherhood. O'Brien sends a copy of a revolutionary book by Goldstein for Smith to read – he does so in the room above the junk shop. He and Julia are then arrested by the Thought Police, and taken away.				<b>Julia</b>		A beautiful young woman. Smith's lover, who is cynical towards the Party.							
Part 3				In the Ministry of Love, Smith sits in a bare cell where the lights are always on, and there is nowhere to lie down. The room has four telescreens, which yell at him whenever he does anything. He shares the cell with a variety of prisoners, including his neighbour who was turned in by his own children. He hopes that O'Brien will offer him a chance to escape through suicide, but when he arrives, O'Brien reveals that he has been working for the Party all along. Smith is tortured in a variety of ways, including beatings and electrical shocks. O'Brien tells Smith that he resists the party because he is insane, and that pain will cure him and allow him to trust and love the Party once again. Smith slowly starts to believe the things that O'Brien tells him, and worries about what lies in Room 101. O'Brien reveals that the Party want power for the sake of power – not to help or protect others. After a while, Smith is moved to a more comfortable room. He determines that he will always secretly hate the Party, and therefore thwart their plans to have him die loving them. After a dream one night, he cries out for Julia, and is taken to Room 101, where he is confronted with his worst fear – rats. He begs O'Brien to torture Julia instead, and secures his release. Later, in the Chestnut Tree Café, he hears the news of an Oceania victory with joy, and realises he loves Big Brother.				<b>O'Brien</b>		Member of Inner Party, pretends to be part of the Brotherhood to entrap rebels.							
				<b>Big Brother</b>		Symbolic ruler of Oceania.											
				<b>Goldstein</b>		Symbolic leader of the Brotherhood, author of a book about the Party.											
				<b>Parsons</b>		Smith's enthusiastic, and stupid, neighbour.											
IMPORTANT PLACES																	
				Airstrip One – the new name for Britain.													
				Oceania – one of three world powers. Includes America, Britain, and Australia.													
				Eurasia and Eastasia – the other two powers. Oceania is always allied to one, and at war with the other. This loyalty constantly changes.													
				Ministry of Love – the department of the government dealing with crime and justice. Associated with torture, pain and "disappearances".													
				Ministry of Truth – produces, changes and rewrites all information, art and culture.													
				Ministry of Peace – in charge of the war, whoever it may be against at the time.													
				Ministry of Plenty – in charge of economy and production. Produces targets and data, controls supply of items, usually by creating fictional shortages.													
Smith – "To know and not to know, to be conscious of complete truthfulness while telling carefully constructed lies"				O'Brien - "The Party seeks power entirely for its own sake. We are not interested in the good of others; we are interested solely in"													
Julia - "They can make you say anything—anything—but they can't make you believe it. They can't get inside you."				Smith -"Who controls the past controls the future. Who controls the present controls the past."													
Syme - "Don't you see that the whole aim of Newspeak is to narrow the range of thought?"				"In the end the Party would announce that two and two made five, and you would have to believe it."													
Dictator		Totalitarian		Surveillance		Authority		Censorship		Indoctrinate		Cynical		Oppression		Nostalgia	
Scapegoat		Propaganda		Manipulation		Deviant		Falsify		Resistance		Dystopia		Omnipresent		Perpetual	

# CONTEXT – *Nineteen Eighty-Four* was written by George Orwell and first published in 1949



'On each landing, opposite the lift shaft, the poster with the enormous face gazed from the wall. It was one of those pictures which are so contrived that the eye follows you about when you move... The black moustachio'd face gazed down from every commanding corner. There was one on the house-front immediately opposite. BIG BROTHER IS WATCHING YOU, the caption said, while the dark eyes looked deep into Winston's own.'

**George Orwell**  
George Orwell was the pen name of Eric Arthur Blair (1903 – 1950). Orwell attended prestigious boarding schools throughout his youth and attended Eton, but as a self-described member of the “lower-upper-middle-class” he never truly felt as though he fitted in. In his adult life, he was staunch in his support of democratic socialism, largely influenced by the time he chose to spend living amongst the poor – and spoke out frequently against totalitarianism and social injustice. Orwell wrote a wide range of essays, journals and novels.

**The Soviet Regime**  
The communist regime in the Soviet Union was the most prominent totalitarian regime of Orwell’s time. Despite its initial promise of a more equal system for all, when Stalin rose to power through manipulating and intimidating others, the regime became totalitarian. He ordered mass murders and hundreds of thousands of executions. It is generally accepted that the standards of living decreased, working conditions deteriorated and personal freedoms were greatly reduced.

**Orwell and Totalitarianism**  
In 1936, Orwell travelled to Spain, where he witnessed the nightmarish atrocities being carried out by the Fascist regime during the Spanish Civil War. Likewise, the rise to power of dictatorship figures such as Adolf Hitler in Germany and Joseph Stalin in the Soviet Union, who implemented equally appalling tactics in order to cling to power, led to Orwell’s increasing abhorrence of authoritarian, totalitarian regimes. Orwell then put significant effort into imagining all the dangers of such political movements, as is particularly evident in the novels *Animal Farm* (1945) and *Nineteen Eight-Four* (1949) which was written in 1948.

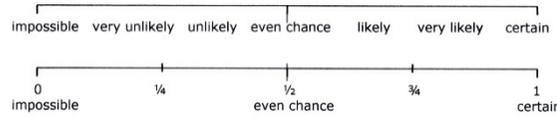
**Technology**  
Although 1984 is now in the past, the novel was written in the late 1940s, when 1984 was still a long way into the future. There were no personal computers or internet. TV was becoming increasingly popular, but the most advanced electronic equipment in most homes was the radio. As is the case today, many people were naturally wary of the role of technological development, and how new technology could be deliberately manipulated for ethical or dangerous purposes. Even today, *Nineteen Eight-Four* is skilled in arguments/ discussions about the appropriate use of technology.

## KEY TERMS

**Utopia**  
A utopia is an imagined place or state of things in which everything is perfect. The word *utopia* was coined from Ancient Greek by Sir Thomas More in 1516. “Utopia” comes from Greek and translates as “no-place” and literally means any non-existent society, when ‘described in considerable detail’. However, in standard usage, the word’s meaning has shifted and now usually describes a non-existent society that is intended to be viewed as considerably better than contemporary society. A utopia can only be achieved if all members in the society agree and there are no conflicting desires. However, because people are individuals, they have conflicting desires. If any two desires cannot be simultaneously satisfied, a true utopia cannot be attained because in utopia all desires are satisfied.

**Dystopia**  
A dystopia is an imagined state or society in which there is great suffering or injustice, typically one that is totalitarian or post-apocalyptic. Unlike a utopian novel, in which the writer aims to portray the perfect human society, a dystopian novel does the exact opposite: it shows the worst human society imaginable, in an effort to convince readers to avoid any path that might lead toward such societal degradation.  
In 1949, at the dawn of the nuclear age and before the television had become a fixture in the family home, Orwell’s vision of a post-atomic dictatorship in which every individual would be monitored ceaselessly by means of the telescreen seemed terrifyingly possible.

**Topic 5 – Probability**

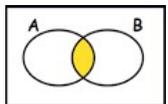
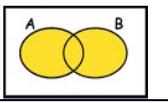
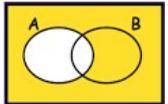


The probability scale

$$\text{Theoretical Probability} = \frac{\text{Number of favourable (desired) outcomes}}{\text{Total number of possible outcomes}}$$

Predicted number of outcomes = probability x number of trials

Rule		Example
Multiply for independent events	Probability of A <b>and</b> B happening	P(6 on dice <b>and</b> H on coin) $P = \frac{1}{6} \times \frac{1}{2}$
Add for mutually exclusive events	Probability of event A or B happening	P(5 <b>or</b> 6 on dice) $P = \frac{1}{6} + \frac{1}{6}$

Symbol	Name	Example	Explanation
$\xi$	Universal Set	$\xi \{1,2,3,4,5,6\}$	All possible values, must appear in Venn Diagram either in a set or within the box if not contained in either set
$\{ \}$	Set	A $\{1, 3, 6\}$ B $\{2, 3, 6\}$	Collection of numbers
$\cap$	Intersect 	$A \cap B = \{3, 6\}$	In both set A and Set B
$\cup$	Union 	$A \cup B = \{1, 2, 3, 6\}$	In either Set A or Set B (or both)
$\in$	Is a member	$3 \in B$	3 is an element of Set B
$A'$	Is not in a set 	$A' = \{2, 5\}$	2, 4 and 5 are not in Set A

**Topic 6 – Algebra**

**Key Terms and Algebra Notation**

Expression	Contains unknown values but no equals sign	$2a + 3b + 4a$
Equation	Contains unknowns and can be solved	$2a + 5 = 11$
Identity	Always true no matter what values are substituted, uses symbol $\equiv$	$y + y + y \equiv 3y$
Formula	Links one value to one or more other values	$D = M \times V$

$ab = a \times b$
$3y = y + y + y$
$a^2 = a \times a$
$ab^2 = a \times b \times b$
$a^3 = a \times a \times a$
$\frac{a}{b} = a \div b$

**Index Laws**

Multiplying	$y^a \times y^b = y^{a+b}$
Dividing	$y^a \div y^b = y^{a-b}$
Raising the power	$(y^a)^b = y^{ab}$
Power of zero	$y^0 = 1$
Negative indices	$y^{-a} = \frac{1}{y^a}$
Fractional indices	$y^{\frac{a}{b}} = \sqrt[b]{y^a}$
Square root is the same as power of $\frac{1}{2}$	$\sqrt{y} = y^{\frac{1}{2}}$

**Key Command Words**

Simplify	Collect like terms
Expand	Multiply each term in the bracket by the expression outside the bracket
Factorise	The reverse of expanding (putting into brackets)
Solve	Find the unknown term
Substitute	Replaces letters with values

**Topic 7 – Equations, Inequalities and Sequences**

**Inequality notation**

Inequality	Definition	Expressed on a number line
$x < 5$	x is smaller than 5	
$x > 5$	x is greater than 5	
$x \leq 5$	x is smaller than or equal to 5	
$x \geq 5$	x is greater than or equal to 5	
$1 \leq x \leq 5$	x is greater than or equal to 1 and smaller than or equal to 5	
●	Used for $\leq$ or $\geq$	
○	Used for $<$ or $>$	

**Sequences**

Sequence	A series of numbers that follows a set pattern. Each number in a sequence is called a term.
Linear Sequence	Increases or decreases by the same amount from term to term
Quadratic Sequence	The term to term difference itself changes each time
Special sequences	You need to know: square numbers, cube numbers, triangular numbers, Fibonacci sequence
Fibonacci	0, 1, 1, 2, 3, 5, 8, 13, 21, 34 Each term is found by adding together the previous two terms.
Nth term	A formula that allows you to find any term of a sequence

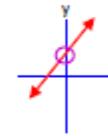
**Topic 8 – Graphs**

Linear Graphs (straight line graphs) all have the equation:

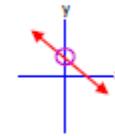
$$y = mx + c$$

↓ Gradient    ↓ y-intercept

When gradient is positive

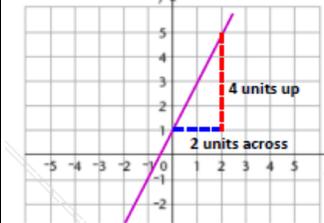


When gradient is negative

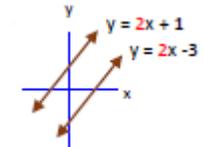


Gradient

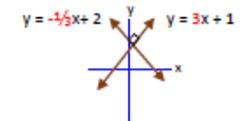
$$\text{Gradient} = \frac{\text{change in } y}{\text{change in } x} = \frac{4}{2} = 2$$



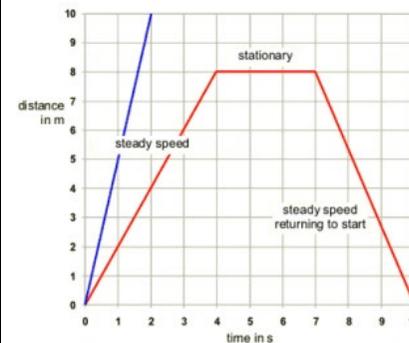
Parallel lines have the **same** gradient



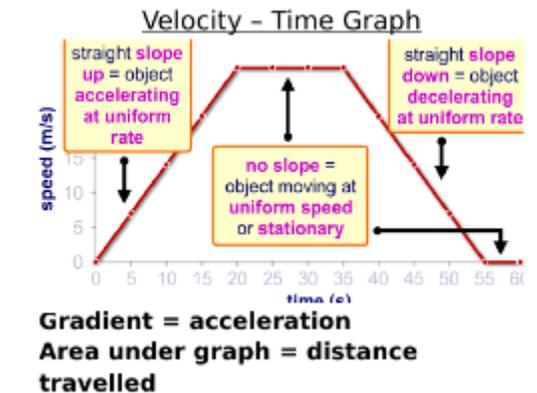
Perpendicular lines have the **reciprocal gradient and opposite sign** (+ or -)



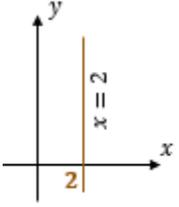
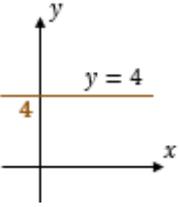
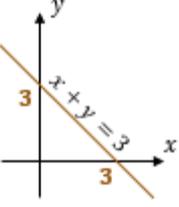
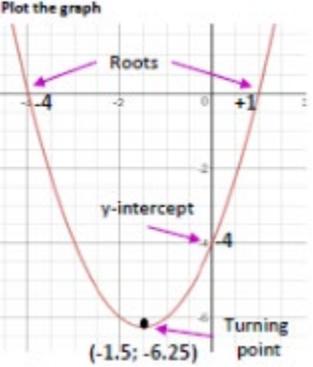
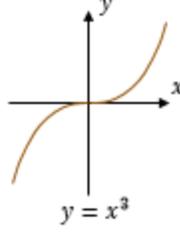
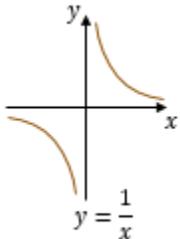
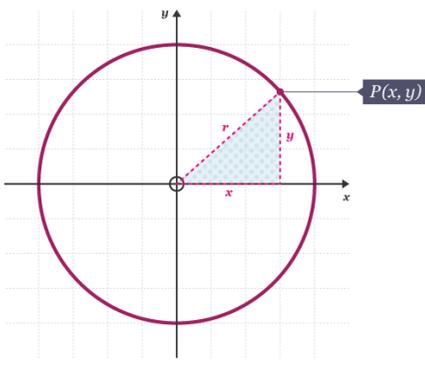
Distance Time Graphs:



Velocity Time Graphs (higher)

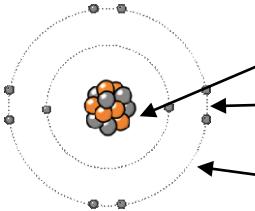


**Topic 8 – Graphs Continued**

X = a number	Y = a number	$x + y = a$ number	Quadratic ( $x^2$ )	Cubic ( $x^3$ )	Reciprocal ( $y = \frac{1}{x}$ )	Circle (Higher Only)
						
Always a vertical line	Always a horizontal line	Linear, crossing the x and y axis at the given number	Inverted when the coefficient of $x^2$ is negative. Always symmetrical.	*Higher Only		Equation of a circle: $x^2 + y^2 = r^2$

**Atoms, elements and compounds**

<b>Atom</b>	<i>The smallest part of an element that can exist</i>	Have a radius of around 0.1 nanometres and have no charge (0).
<b>Element</b>	<i>Contains only one type of atom</i>	Around 100 different elements each one is represented by a symbol e.g. O, Na, Br.
<b>Compound</b>	<i>Two or more elements chemically combined</i>	Compounds can only be separated into elements by chemical reactions.



<b>Central nucleus</b>	<b>Contains protons and neutrons</b>
<b>Electron shells</b>	<b>Contains electrons</b>

Electronic shell	Max number of electrons
1	2
2	8
3	8
4	2

Name of Particle	Relative Charge	Relative Mass
Proton	+1	1
Neutron	0	1
Electron	-1	Very small

**Relative electrical charges of subatomic particles**

7 ← Li 3 ←	<b>Mass number</b>	<i>The sum of the protons and neutrons in the nucleus</i>	
	<b>Atomic number</b>	<i>The number of protons in the atom</i>	Number of electrons = number of protons

<b>Mixtures</b>	<i>Two or more elements or compounds not chemically combined together</i>	Can be separated by physical processes.
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Method	Description	Example
<b>Filtration</b>	<i>Separating an insoluble solid from a liquid</i>	To get sand from a mixture of sand, salt and water.
<b>Crystallisation</b>	<i>To separate a solid from a solution</i>	To obtain pure crystals of sodium chloride from salt water.
<b>Simple distillation</b>	<i>To separate a solvent from a solution</i>	To get pure water from salt water.
<b>Fractional distillation</b>	<i>Separating a mixture of liquids each with different boiling points</i>	To separate the different compounds in crude oil.
<b>Chromatography</b>	<i>Separating substances that move at different rates through a medium</i>	To separate out the dyes in food colouring.

**AQA GCSE Atomic structure and periodic table part 1**

**Electronic structures**

**The development of the model of the atom**

<b>Pre 1900</b>		<i>Tiny solid spheres that could not be divided</i>	Before the discovery of the electron, John Dalton said the solid sphere made up the different elements.
<b>1897 'plum pudding'</b>		<i>A ball of positive charge with negative electrons embedded in it</i>	JJ Thompson's experiments showed that an atom must contain small negative charges (discovery of electrons).
<b>1909 nuclear model</b>		<i>Positively charge nucleus at the centre surrounded negative electrons</i>	Ernest Rutherford's alpha particle scattering experiment showed that the mass was concentrated at the centre of the atom.
<b>1913 Bohr model</b>		<i>Electrons orbit the nucleus at specific distances</i>	Niels Bohr proposed that electrons orbited in fixed shells; this was supported by experimental observations.

<b>James Chadwick</b>	<i>Provided the evidence to show the existence of neutrons within the nucleus</i>
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**Rutherford's scattering experiment**

*A beam of alpha particles are directed at a very thin gold foil*

Most of the alpha particles passed right through. A few (+) alpha particles were deflected by the positive nucleus. A tiny number of particles reflected back from the nucleus.

<b>Chemical equations</b>	<i>Show chemical reactions - need reactant(s) and product(s) energy always involves and energy change</i>	Law of conservation of mass states the total mass of products = the total mass of reactants.
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<b>Word equations</b>	<i>Uses words to show reaction</i> <b>reactants → products</b> <i>magnesium + oxygen → magnesium oxide</i>	Does not show what is happening to the atoms or the number of atoms.
<b>Symbol equations</b>	<i>Uses symbols to show reaction</i> <b>reactants → products</b> <i>2Mg + O<sub>2</sub> → 2MgO</i>	Shows the number of atoms and molecules in the reaction, these need to be balanced.

**Relative atomic mass**

<b>Isotopes</b>	<i>Atoms of the same element with the same number of protons and different numbers of neutrons</i>	<b><sup>35</sup>Cl (75%) and <sup>37</sup>Cl (25%)</b> Relative abundance = (% isotope 1 x mass isotope 1) + (% isotope 2 x mass isotope 2) ÷ 100 e.g. (25 x 37) + (75 x 35) ÷ 100 = 35.5
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Alkali metals: 1, 2  
 Halogens: 3, 4, 5, 6, 7  
 Noble gases: 0

H	Transition metals																He						
Li	Be																	B	C	N	O	F	Ne
Na	Mg																	Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr						
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe						
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn						
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	?	?	?												

Elements arranged in order of atomic number

Elements with similar properties are in columns called groups

Elements in the same group have the same number of outer shell electrons and elements in the same period (row) have the same number of electron shells.

**The Periodic table**

**Development of the Periodic table**

Before discovery of protons, neutrons and electrons	Elements arranged in order of atomic weight	Early periodic tables were incomplete, some elements were placed in inappropriate groups if the strict order of atomic weights was followed.
Mendeleev	Left gaps for elements that hadn't been discovered yet	Elements with properties predicted by Mendeleev were discovered and filled in the gaps. Knowledge of isotopes explained why order based on atomic weights was not always correct.

Metals to the left of this line, non metals to the right

Metals	To the left of the Periodic table	Form positive ions. Conductors, high melting and boiling points, ductile, malleable.
Non metals	To the right of the Periodic table	Form negative ions. Insulators, low melting and boiling points.

**Metals and non metals**

Group 7

**AQA GCSE Atomic structure and periodic table part 2**

Group 1

Alkali metals	Very reactive with oxygen, water and chlorine	Only have one electron in their outer shell. Form +1 ions.
	Reactivity increases down the group	Negative outer electron is further away from the positive nucleus so is more easily lost.

Halogens	Consist of molecules made of a pair of atoms	Have seven electrons in their outer shell. Form -1 ions.
	Melting and boiling points increase down the group (gas → liquid → solid)	Increasing atomic mass number.
	Reactivity decreases down the group	Increasing proton number means an electron is more easily gained e.g. NaCl
With metals	Forms a metal halide	Metal + halogen → metal halide e.g. Sodium + chlorine → sodium chloride metal atom loses outer shell electrons and halogen gains an outer shell electron
With hydrogen	Forms a hydrogen halide	Hydrogen + halogen → hydrogen halide e.g. Hydrogen + bromine → hydrogen bromide e.g. Cl <sub>2</sub> + H <sub>2</sub> → 2HCl
With a solution of a halide salt	A more reactive halogen will displace the less reactive halogen from the salt	Chlorine + potassium bromide → potassium chloride + bromine e.g. Cl <sub>2</sub> + 2KBr → 2KCl + Br <sub>2</sub>

**Group 0**

**Transition metals (Chemistry only)**

Noble gases

Unreactive, do not form molecules	This is due to having full outer shells of electrons.
Boiling points increase down the group	Increasing atomic number.

With oxygen	Forms a metal oxide	Metal + oxygen → metal oxide	e.g. 4Na + O <sub>2</sub> → 2Na <sub>2</sub> O
With water	Forms a metal hydroxide and hydrogen	Metal + water → metal hydroxide + hydrogen	e.g. 2Na + 2H <sub>2</sub> O → 2NaOH + H <sub>2</sub>
With chlorine	Forms a metal chloride	Metal + chlorine → metal chloride	e.g. 2Na + Cl <sub>2</sub> → 2NaCl

Compared to group 1

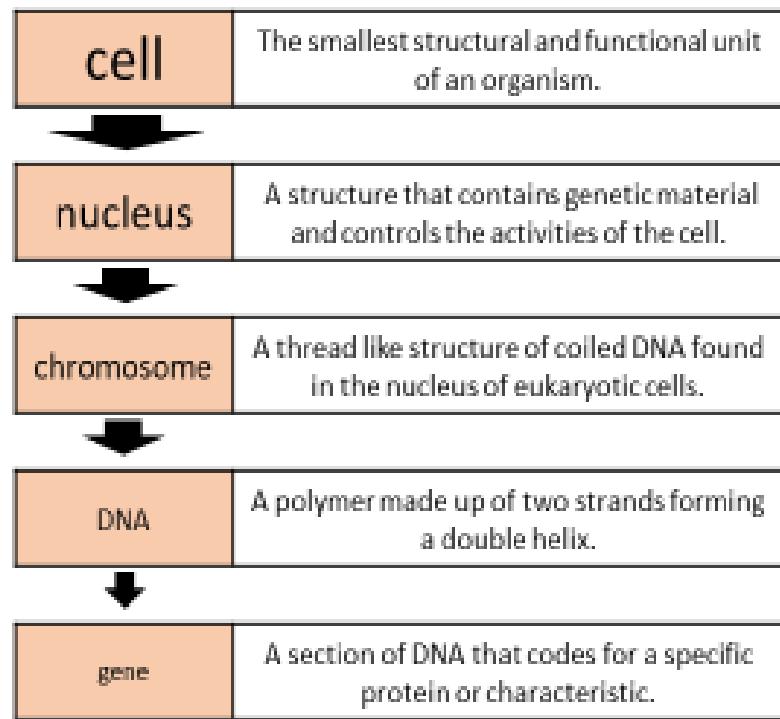
- Less reactive
- Harder
- Denser
- Higher melting points

Typical properties

- Many have different ion possibilities with different charges
- Used as catalysts
- Form coloured compounds

- Cu<sup>2+</sup> is blue
- Ni<sup>2+</sup> is pale green, used in the manufacture of margarine
- Fe<sup>2+</sup> is green, used in the Haber process
- Fe<sup>3+</sup> is reddish-brown
- Mn<sup>2+</sup> is pale pink

largest  
↑  
smallest



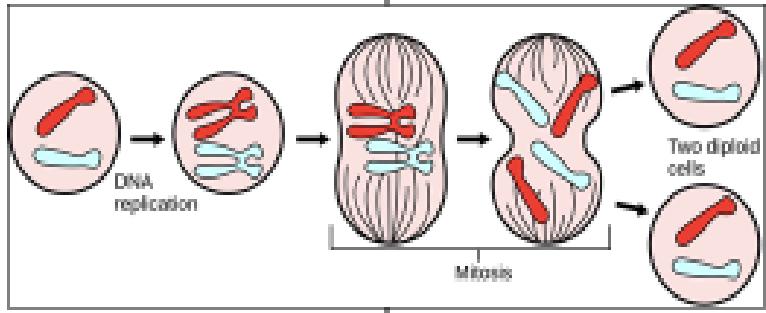
Small intestines	<i>Villi – increase surface area, Good blood supply – to maintain concentration gradient, Thin membranes – short diffusion distance.</i>
Lungs	<i>Alveoli– increase surface area, Good blood supply – to maintain concentration gradient, Thin membranes – short diffusion distance.</i>
Gills in fish	<i>Gill filaments and lamella – increase surface area, Good blood supply – to maintain concentration gradient, Thin membranes – short diffusion distance.</i>
Roots	<i>Root hair cells - increase surface area.</i>
Leaves	<i>Large surface area, thin leaves for short diffusion path, stomata on the lower surface to let O<sub>2</sub> and CO<sub>2</sub> in and out.</i>

**ADAPTATIONS FOR DIFFUSION** – The greater the difference in concentrations the faster the rate of diffusion.

*Cells divide in a series of stages. The genetic material is doubled and then divided into two identical cells.*

**MITOSIS AND THE CELL CYCLE**

Stage 1	<b>Growth</b>	Increase the number of sub-cellular structures e.g. ribosomes and mitochondria.
Stage 2	<b>DNA Synthesis</b>	DNA replicates to form two copies of each chromosome.
Stage 3	<b>Mitosis</b>	One set of chromosomes is pulled to each end of the cell and the nucleus divides. Then the cytoplasm and cell membranes divide to form two cells that are identical to the parent cell.



*Mitosis occurs during growth, repair, replacement of cells. Asexual reproduction occurs by mitosis in both plants & simple animals.*

**AQA Cell Biology 2**  
**Cell division**  
**STEM CELLS**  
*Undifferentiated cell of an organism*

Divides to form more cells of the same type, and can differentiate to form many other cell types.

**Transport in cells**

<b>Diffusion</b> <i>No</i> energy required	<i>Movement of particles in a solution or gas from a higher to a lower concentration</i>	E.g. O <sub>2</sub> and CO <sub>2</sub> in gas exchange, urea in kidneys. Factors that affect the rate are concentration, temperature and surface area.
<b>Osmosis</b> <i>No</i> energy required	<i>Movement of water from a dilute solution to a more concentrated solution</i>	E.g. Plants absorb water from the soil by osmosis through their root hair cells. Plants use water for several vital processes including photosynthesis and transporting minerals.
<b>Active transport</b> <b>ENERGY</b> required	<i>Movement of particles from a dilute solution to a more concentrated solution</i>	E.g. movement of mineral ions into roots of plants and the movement of glucose into the small intestines.

<b>Human Embryonic stem cells</b>	<i>Can be cloned and made to differentiate into most cell types</i>	Therapeutic cloning uses same genes so the body does not reject the tissue. Can be a risk of infection
<b>Adult bone marrow stem cells</b>	<i>Can form many types of human cells e.g. blood cells</i>	Tissue is matched to avoid rejection, risk of infection. Only a few types of cells can be formed.
<b>Meristems (plants)</b>	<i>Can differentiate into any plant cell type throughout the life of the plant.</i>	Used to produce clones quickly and economically, e.g. rare species, crop plants with pest /disease resistance

*Treatment with stem cells may be able to help conditions such as diabetes and paralysis. Some people object to the use of stem cells on ethical or religious grounds*

Radius of an atom  
 $1 \times 10^{-10} \text{m}$



**Electrons gained**  
Negative ion

**Electrons lost**  
Positive ion

Atom	Same number of protons and electrons
Ion	Unequal number of electrons to protons
Mass number	Number of protons and neutrons
Atomic number	Number of protons

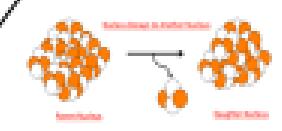
Particle	Charge	Size	Found
Neutron	None	1	In the nucleus
Proton	+	1	
Electron	-	Tiny	Orbits the nucleus

Isotope	${}^6_3\text{Li}$		${}^7_3\text{Li}$	
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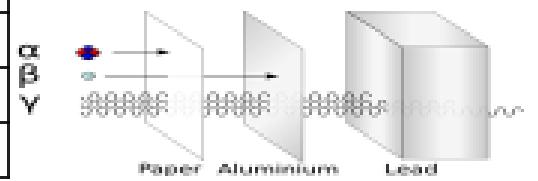
Different forms of an element with the same number of protons but different number of neutrons

**Discovery of the nucleus**

Democritus	Suggested idea of atoms as small spheres that cannot be cut.
J J Thomson (1897)	Discovered electrons- emitted from surface of hot metal. Showed electrons are negatively charged and that they are much less massive than atoms.
Thomson (1904)	Proposed 'plum pudding' model - atoms are a ball of positive charge with negative electrons embedded in it.
Geiger and Marsden (1909)	Directed beam of alpha particles ( $\text{He}^{2+}$ ) at a thin sheet of gold foil. Found some travelled through, some were deflected, some bounced back.
Rutherford (1911)	Used above evidence to suggest alpha particles deflected due to electrostatic interaction between the very small charged nucleus, nucleus was massive. Proposed mass and positive charge contained in nucleus while electrons found outside the nucleus which cancel the positive charge exactly.
Bohr (1913)	Suggested modern model of atom - electrons in circular orbits around nucleus, electrons can change orbits by emitting or absorbing electromagnetic radiation. His research led to the idea of some particles within the nucleus having positive charge; these were named protons.
Chadwick (1932)	Discovered neutrons in nucleus - enabling other scientists to account for mass of atom.

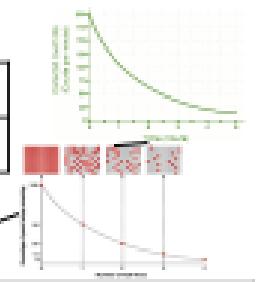
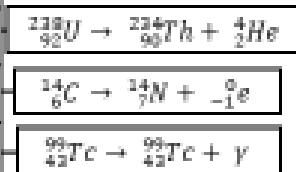


Decay	Range in air	Ionising power	Penetration power
Alpha	Few cm	Very strong	Stopped by paper
Beta	Few m	Medium	Stopped by Aluminium
Gamma	Great distances	Weak	Stopped by thick lead



Radioactive decay	Unstable atoms randomly emit radiation to become stable
Detecting	Use Geiger Muller tube
Unit	Becquerel
Ionisation	All radiation ionises

Decay	Emitted from nucleus	Changes in mass number and atomic number	
Alpha ( $\alpha$ )	Helium nuclei ( ${}^4_2\text{He}$ )	-4	-2
Beta ( $\beta$ )	Electron ( ${}^0_{-1}\text{e}$ )	0	+1
Gamma ( $\gamma$ )	Electromagnetic wave	0	0
Neutron	Neutron	-1	0



**Atoms and Isotopes**      **Atoms and Nuclear Radiation**

Contamination	Unwanted presence of radioactive atoms
Irradiation	Person is in exposed to radioactive source

**AQA ATOMIC STRUCTURE**

**PHYSICS ONLY: Hazards and uses of Radioactive emissions and of background radiation**

Half life	The time taken to lose half of its initial radioactivity
Sievert	Unit measuring dose of radiation
Background	Constant low level environmental radiation, e.g. from nuclear testing, nuclear power, waste

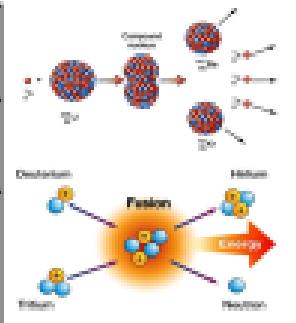
**Nuclear fission and fusion**

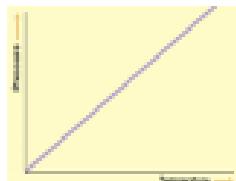
Uses	Different isotopes have different half lives	Short half-lives used in high doses, long half lives used in low doses.
Tracers	Used within body	Isotope with short half life injected, allowed to circulate and collect in damaged areas. PET scanner used to detect emitting radiation. Must be beta or gamma as alpha does not penetrate the body.
Radiation therapy	Used to treat illnesses e.g. cancer	Cancer cells killed by gamma rays. High dose used to kill cells. Damage to healthy cells prevented by focussed gamma ray gun.

Fuel rods	Made of U-238, 'enriched' with U-235 (3%). Long and thin to allow neutrons to escape, hitting nuclei.
Control rods	Made of Boron. Controls the rate of reaction. Boron absorbs excess neutrons.
Concrete	Neutrons hazardous to humans - thick concrete shield protects workers.

**PHYSICS ONLY: Nuclear energy**

Nuclear fission	One large unstable nucleus splits to make two smaller nuclei	Neutron hits U-235 nucleus, nucleus absorbs neutron, splits emitting two or three neutrons and two smaller nuclei. Process also releases energy.	Process repeats, chain reaction formed Used in nuclear power stations
Nuclear fusion	Two small nuclei join to make one larger nucleus	Difficult to do on Earth - huge amounts of pressure and temperature needed.	Occurs in stars





Pressure of a fixed volume of gas increases as temperature increases (temperature increases, speed increases, collisions occur more frequently and with more force so pressure increases).

Temperature of gas is linked to the average kinetic energy of the particles.

If kinetic energy increases so does the temperature of gas.

No kinetic energy is lost when gas particles collide with each other or the container.

Gas particles are in a constant state of random motion.

$$P = m \div V$$

Density = mass  $\div$  volume.

**Density** *Mass of a substance in a given volume*

**Kinetic theory of gases**

State	Particle arrangement	Properties
Solid	<i>Packed in a regular structure. Strong forces hold in place so cannot move.</i>	Difficult to change shape.
Liquid	<i>Close together, forces keep contact but can move about.</i>	Can change shape but difficult to compress.
Gas	<i>Separated by large distances. Weak forces so constantly randomly moving.</i>	Can expand to fill a space, easy to compress.

	Units
Density	<i>Kilograms per metre cubed (kg/m<sup>3</sup>)</i>
Mass	<i>Kilograms (kg)</i>
Volume	<i>Metres cubed (m<sup>3</sup>)</i>
Energy needed	<i>Joules (J)</i>
Specific latent heat	<i>Joule per kilogram (J/kg)</i>
Change in thermal energy	<i>Joules (J)</i>
Specific heat capacity	<i>Joule per kilogram degrees Celsius (J/kg°C)</i>
Temperature change	<i>Degrees Celsius (°C)</i>
Pressure	<i>Pascals (Pa)</i>

**Particle model**

**Pressure**

**PHYSICS ONLY:** when you do work the temperature increases e.g. pump air quickly into a ball, the air gets hot because as the piston in the pump moves the particles bounce off increasing kinetic energy, which causes a temperature rise.

Reducing the volume of a fixed mass of gas increases the pressure.  
Halving the volume doubles the pressure.

PV = constant.  
 $P_1V_1 = P_2V_2$

**AQA PARTICLE MODEL OF MATTER**

**Internal energy and energy transfers**

**Specific Heat Capacity** *Energy needed to raise 1kg of substance by 1°C*  
Depends on:  
• Mass of substance  
• What the substance is  
• Energy put into the system.

Change in thermal energy = mass  $\times$  specific heat capacity  $\times$  temperature change.  
 $\Delta E = m \times c \times \Delta \theta$

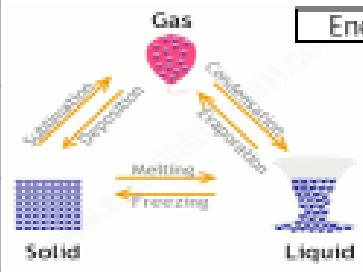
**Change of state**

Freezing	Liquid turns to a solid. Internal energy decreases.
Melting	Solid turns to a liquid. Internal energy increases.
Boiling/ Evaporating	Liquid turns to a gas. Internal energy increases.
Condensation	Gas turns to a liquid. Internal energy decreases.
Sublimation	Solid turns directly into a gas. Internal energy increases.
Conservation of mass	When substances change state, mass is conserved.
Physical change	No new substance is made, process can be reversed.

Specific Latent Heat	<i>Energy needed to change 1kg of a substance's state</i>
Specific Latent Heat of Fusion	<i>Energy needed to change 1kg of solid into 1 kg of liquid at the same temperature</i>
Specific Latent Heat of Vaporisation	<i>Energy needed to change 1kg of liquid into 1 kg of gas at the same temperature</i>

Energy needed = mass  $\times$  specific latent heat.

$$\Delta E = m \times L$$



**Internal energy**  
*Energy stored inside a system by particles*  
Internal energy is the total kinetic and potential energy of all the particles (atoms and molecules) in a system.  
*Heating changes the energy stored within a system*  
Heating causes a change in state. As particles separate, potential energy stored increases. Heating increases the temperature of a system. Particles move faster so kinetic energy of particles increases.



# YR 9 ART AND DESIGN *KNOWLEDGE ORGANISER Pop Art*

In Art and Design you are assessed on everything you do in class. There are 4 assessment objectives.

## A01 LOOKING AT THE WORK OF ARTISTS - RESEARCH

In each project you will look at and analyse the work of an artist or art movement. In project two you will look at African Masks and textiles. This research will help you produce your own work.

## A02 EXPERIMENTING WITH MATERIALS

You will be given the opportunity to experiment with a range of sewing techniques and fabric. You will be expected to select appropriate stitches and embellishments.

## A03 DRAWING AND RECORDING

You will learn a range of compositional techniques such as overlapping, cropping and layering. You will be shown how to design your own mask.

## A04 PRODUCING A FINAL PIECE

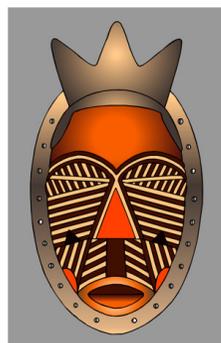
At the end of the project you will present a final piece of work. This will be a textile mask.

## KEYWORDS AND KEY TERMS FOR THIS PROJECT

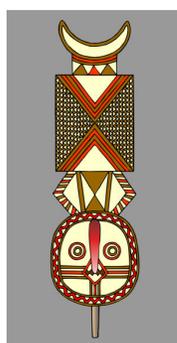
### African Countries

Algeria	Libya
Angola	Madagascar
Benin	Malawi
Botswana	Mali
Burkina Faso	Mauritania
Burundi	Mauritius
Cameroon	Morocco
Cape Verde	Mozambique
Central African Republic	Namibia
Chad	Niger
Comoros	Nigeria
Congo-Brazzaville	Rwanda
Congo-Kinshasa	Senegal
Cote d'Ivoire	Seychelles
Djibouti	Sierra Leone
Egypt	Somalia
Equatorial Guinea	South Africa
Eritrea	South Sudan
Ethiopia	Sudan
Gabon	Swaziland
Gambia	São Tomé and Príncipe
Ghana	Tanzania
Guinea	Togo
Guinea Bissau	Tunisia
Kenya	Uganda
Lesotho	Western Sahara
Liberia	Zambia
	Zimbabwe

### African Masks



Lulua Mask



Bwa Mask

### Senufo Mask



Lwalwa Mask

### COMMON ELEMENTS

Stripes  
Chequered pattern  
Animal features  
Headdresses  
Blocky features

### SEWING TECHNIQUES

These techniques help your designs by adding depth and contrast.

**Applique** - decorate fabric with more pieces of fabric.

**Embellishment** - a decorative detail or feature added to something to make it more attractive.

**Running stitch** - even stitch with even gaps.

**Back Stitch** - a continuous row of even stitches giving the effect of an unbroken line.

**Cross stitch** - even stitches which cross over at diagonals.

# YR 9 HOSPITALITY AND CATERING Level 1/2

# KNOWLEDGE ORGANISER



Terms 2.1 and 2.2 - In Catering you are assessed on everything you do in class. There are 2 assessment objectives.

## Assessment one (L01 Unit one) Understand the environment in which hospitality and catering providers operate.

You will be looking at the structure of the Hospitality and Catering industry; Analyse job requirements; Describe the working conditions of different jobs across the industry and explain the factors affecting the success of hospitality and catering providers.

## Assessment two (L03 Unit two) Be able to cook dishes safely and hygienically

You will apply your knowledge of Personal, Food and Kitchen hygiene and safety to create dishes of high quality. You will use appropriate techniques, choose the correct equipment and be able to modify recipes in response to differing dietary and customer needs.

You will use sensory words to describe appearance, aroma, texture and taste.

## KEYWORDS AND KEY TERMS

- ❑ HOSPITALITY – Industry branch which aims to provide accommodation, food, entertainment, transportation and other services for tourists and travellers.
- ❑ CATERING – Provision of Food and Drink.
- ❑ PROFIT – The positive difference between expenses and incomes of a business
- ❑ NON-COMMERCIAL ORGANISATION – Types of establishment which does not intend to make a profit.
- ❑ COMMERCIAL – Type of establishment which aims to gain profit
- ❑ ECONOMY – Term used to describe the volume of production and consumption of goods in a given state or country, or their monetary value.
- ❑ PRIMARY HOSPITALITY PROVIDER – Establishment whose main aim is to provide accommodation and catering.
- ❑ SECONDARY HOSPITALITY SECTOR – Establishments whose main aim is different than providing accommodation and food, but which offers other hospitality services.
- ❑ CUSTOMER – Client – a person who buys and consumes goods and services.

### Recipes:

#### Bread products:

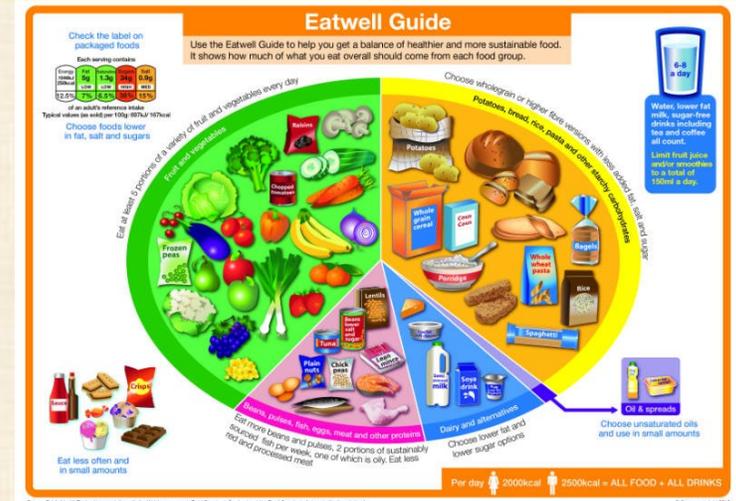
- Pizza
- Cream buns
- Soda Bread
- Naan Bread
- Chelsea buns

#### Cooking Methods:

- Baking
- Boiling
- Steaming
- Poaching
- Microwave
- Shallow frying
- Deep fat frying
- Sautéing
- Braising
- Stir frying

### Useful websites to embed learning

- [https://www.edugas.co.uk/qualifications/hospitality-and-catering/WJEC-Level-1-2-Award-in-Hospitality-and-Catering-Unit-2-iSAM%20%20from%202016.pdf?language\\_id=1](https://www.edugas.co.uk/qualifications/hospitality-and-catering/WJEC-Level-1-2-Award-in-Hospitality-and-Catering-Unit-2-iSAM%20%20from%202016.pdf?language_id=1)
- <https://www.jamieoliver.com/recipes/>
- <https://www.bbc.co.uk/food/recipes>
- <http://www.maryberry.co.uk/recipes/>



# LEVEL 1 / 2 AWARD IN HOSPITALITY AND CATERING unit 1

## AO1

Understand the environment in which hospitality and catering providers operate

What are the styles of food service?

-  Be able to state a variety of styles of service
-  Explain the main features of each style of service
-  Be able to compare suitability of styles of service for different establishments

What is the structure of the Hospitality and catering industry ?

-  Identify at least 5 different establishments
-  Explain 2 establishments in detail.
-  Compare establishments explaining their similarities and differences

Where do Hospitality and Catering establishments buy their supplies?

-  Be able to state different types of suppliers
-  Explain the different types of suppliers
-  Be able to explain the advantages and disadvantages of different types of suppliers

What are job roles in Hospitality?

-  Be able to state a variety of job roles
-  Explain the main requirements of each job
-  Be able to explain the qualities and training for each job

How are establishments rated and reviewed?

-  Be able to state different methods of ratings
-  Explain the differences between different methods of ratings
-  Be able to explain the advantages and disadvantages of different types of ratings

What makes an establishment successful ?

-  Be able to state some of the factors
-  Explain how the factors can affect the success of the establishment
-  Consider reasons affecting success or failure and identify ways of dealing with them

The learner can:	Assessment Criteria	Content unit 1
<b>LO1</b> Understand the environment in which hospitality and catering providers operate	AC1.1 Describe the structure of the hospitality and catering industry	<b>Hospitality and catering industry</b> <ul style="list-style-type: none"> <li>• Types of provider</li> <li>• Types of service</li> <li>• Commercial/non-commercial establishment</li> <li>• Services provided</li> <li>• Suppliers</li> <li>• Where hospitality is provided at non-catering venues</li> <li>• Standards and ratings</li> <li>• Job roles within the industry</li> </ul>
	AC1.2 Analyse job requirements within the <u>hospitality</u> and Catering industry	<b>Requirements</b> <ul style="list-style-type: none"> <li>• Supply and demand</li> <li>• Jobs for specific needs</li> <li>• Rates of pay</li> <li>• Qualifications and experience, training</li> <li>• Personal attributes</li> </ul>
	AC1.3 Describe working conditions of different job roles across the hospitality and catering industry	<b>Working conditions</b> <ul style="list-style-type: none"> <li>• Different types of contract</li> <li>• Working hours</li> <li>• Rates of pay</li> <li>• Holiday entitlement, remuneration</li> </ul>
	AC1.4 Explain factors affecting the success of hospitality and catering providers	<b>Factors</b> <ul style="list-style-type: none"> <li>• Costs, profit, Economy</li> <li>• Environment</li> <li>• Emerging cooking techniques, technology</li> <li>• Customer demographics/lifestyle and expectations</li> <li>• Customer service</li> <li>• Competition</li> <li>• Trends, media, political factors</li> </ul>

# HOSPITALITY AND CATERING AC1-1

## Styles of food service

- Depends on
- Type of establishment
- Type of food being served
- Cost of the meal or food
- Time available for the meal
- Type of customer
- Number of customers
- Availability of serving staff

## Buffet / carvery

- Usually single counter
- Staff may serve some items eg meats from a joint
- Informal style of service
- Fast and simple service
- Reasonably low cost depending on the type of food served
- Poor portion control
- Needs efficient clearing away and arranging

## Family service

- Dishes are put on the table where serving spoons are provided and customers serve themselves
- More sociable
- Less portion control
- Easy and quick to serve
- Suits groups of people
- Needs a large table because of all the dishes!



## Styles of food service

- Depends on
- Type of establishment
- Type of food being served
- Cost of the meal or food
- Time available for the meal
- Type of customer
- Number of customers
- Availability of serving staff

## Cafeteria / self service



## Fast food / take away



## Buffet / carvery



## Plate service



## Silver service



## Gueridon service



## Fast food / take away

- Single or multiple counters where customer orders food from limited menu
- Food is collected from the counter
- A quick, simple type of service
- Can be a very high turnover of food
- Often a limited choice of menu
- Use disposable, cutlery, and packaging

## Plate service

- Pre plated meals served from the kitchen
- Could be basic food or decorated cuisine
- From cafes to luxury restaurants
- Good portion control
- Consistent presentation
- Relys on skill of kitchen staff
- Time consuming for kitchen staff

## Gueridon service

- Food is served from a side table using a spoon and fork
- Dishes can be cooked, finished or assembled in front of the customer
- Eg crepe suzette
- Specialist, skilled service,
- Individual attention to customer
- High staff costs
- Time consuming service

### Counter service

Cafeteria  
Self service  
Fast food  
Take away  
Buffet  
Carvery

### Table service

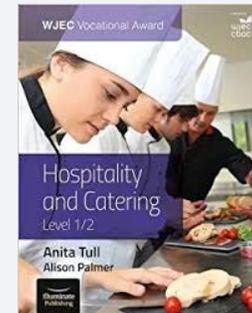
Plate service  
Family service  
Silver service  
Gueridon service

### Personal service

Travel service  
Tray service  
Vending service

# HOSPITALITY AND CATERING

## AC1-1



### Transported meal service

- An assembled meal provided or a choice from a menu
- Planes, trains



### Tray service

- An assembled meal provided or a choice from a menu
- Tray service used in hospitals, room service



### Vending service

- Food and drinks served from a machine
- 24hour food service
- Drinks, snacks and meals can be offered
- Can include hot meals



### 1.1.2 styles of service

1	What does the style of service depend on?
2	Name 5 types of counter service
3	Name 4 types pf table service
4	Name 3 types of personal service
5	What is cafeteria service?
6	What is fast food/take away service?
7	What is buffet/carvery service ?
8	What is plated service?
9	What is family service?
10	What is silver service?
11	What is gueridon service?
12	What is airline food (transported meal) service?
13	What is tray service?
14	What is vending service?
15	What is delivered meal service?

## GCSE Computer Science: Python Programming Commands

### Interacting with the user:

Print a message

```
print('Hello, world!')
```

Print multiple values (of different types)

```
ndays = 365
print('There are', ndays, 'in a year')
```

Asking the user for a string

```
name = input('What is your name? ')
```

Asking the user for a whole number (an integer)

```
num = int(input('Enter a number: '))
```

### Deciding between options:

Decide to run a block (or not)

```
x = 3
if x == 3:
    print('x is 3')
```

Are two values equal?

```
x == 3
```

△ two equals signs, not one

Decide between two blocks

```
mark = 80
if mark >= 50:
    print('pass')
else:
    print('fail')
```

Are two values not equal?

```
x != 3
```

Less than another?

```
x < 3
```

Greater than another?

```
x > 3
```

Decide between many blocks

```
mark = 80
if mark >= 65:
    print('credit')
elif mark >= 50:
    print('pass')
else:
    print('fail')
```

Less than or equal to?

```
x <= 3
```

Greater than or equal to?

```
x >= 3
```

▶ elif can be used without else

The answer is a *Boolean*:

▶ elif can be used many times

**True** or **False**

### Repeating (Loops/Iteration)

Repeat a block 10 times

```
for i in range(10):
    print(i)
```

Sum the numbers 0 to 9

```
total = 0
for i in range(10):
    total = total + i
print(total)
```

Repeat a block over a string

```
for c in 'Hello':
    print(c)
```

Keep printing on one line

```
for c in 'Hello':
    print(c, end=' ')
print('!!!')
```

Repeat a block over list (or string) indices

```
msg = 'I grok Python!'
for i in range(len(msg)):
    print(i, msg[i])
```

Count from 0 to 9

```
range(10)
```

△ range starts from 0 and goes up to, but not including, 10

Count from 1 to 10

```
range(1, 11)
```

Count from 10 down to 1

```
range(10, 0, -1)
```

Count 2 at a time to 10

```
range(0, 11, 2)
```

Count down 2 at a time

```
range(10, 0, -2)
```

### String manipulation:

Compare two strings

```
msg = 'hello'
if msg == 'hello':
    print('howdy')
```

Less than another string?

```
if msg < 'n':
    print('a-m')
else:
    print('n-z')
```

△ strings are compared character at a time (lexicographic order)

Is a character in a string?

```
'e' in msg
```

Is a string in another string?

```
'ell' in msg
```

Convert to uppercase

```
msg.upper()
```

also lower and title

Count a character in a string

```
msg.count('l')
```

Replace a character or string

```
msg.replace('l', 'X')
```

Delete a character or string

```
msg.replace('l', '')
```

Is the string all lowercase?

```
msg.islower()
```

also isupper and istitle

### Variables:

Creating a variable

```
celsius = 25
```

Using a variable

```
celsius*9/5 + 32
```

Whole numbers (integers):

Addition and subtraction

```
365 + 1 - 2
```

Multiplication and division

```
25*9/5 + 32
```

Powers (2 to the power of)

```
2**8
```

Convert integer to string

```
str(365)
```

Text (strings):

Single quoted

```
'perfect'
```

Double quoted

```
"credit"
```

Multi-line

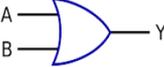
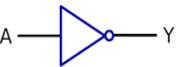
```
'''Hello,
World!'''
```

Add (concatenate) strings

```
'Hello' + 'World'
```

## GCSE Computer Science

### Paper 2: 2.4: Computational Logic

Keyword	Definition	Keyword	Definition																																				
<b>Logic Gates</b>	<div style="display: flex; flex-direction: column; gap: 10px;"> <div> <p><b>AND Gate</b></p>  <p>Only has an output of 1 if both A AND B are 1 <math>A \text{ AND } B = Y</math> <math>A \wedge B</math></p> <table border="1" style="display: inline-table; margin-left: 20px;"> <thead> <tr><th>A</th><th>B</th><th>Y</th></tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> </tbody> </table> </div> <div> <p><b>OR Gate</b></p>  <p>Has an output of 1 if either A or B are 1 <math>A \text{ OR } B = Y</math> <math>A \vee B</math></p> <table border="1" style="display: inline-table; margin-left: 20px;"> <thead> <tr><th>A</th><th>B</th><th>Y</th></tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>1</td></tr> <tr><td>1</td><td>0</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> </tbody> </table> </div> <div> <p><b>Not Gate</b></p>  <p>Inverts / swaps the input (0 becomes 1 and 1 becomes 0) Only 1 input <math>\text{NOT } A = Y</math> <math>\neg A</math></p> <table border="1" style="display: inline-table; margin-left: 20px;"> <thead> <tr><th>A</th><th>Y</th></tr> </thead> <tbody> <tr><td>0</td><td>1</td></tr> <tr><td>1</td><td>0</td></tr> </tbody> </table> </div> </div>	A	B	Y	0	0	0	0	1	0	1	0	0	1	1	1	A	B	Y	0	0	0	0	1	1	1	0	1	1	1	1	A	Y	0	1	1	0	<b>Computing Maths</b>	<ul style="list-style-type: none"> <li>+ Addition e.g. <math>4+3 = 7</math></li> <li>- Subtraction e.g. <math>4-3 = 1</math></li> <li>* Multiplication e.g. <math>4*3 = 12</math></li> <li>/ Division e.g. <math>4/3 = 1.33</math></li> <li>^ Exponentiation (to the power of) e.g. <math>4^3 = 64</math></li> </ul> <p><b>MOD</b> Modulus (the remainder from a division) e.g. <math>7 \text{ MOD } 3 = 1</math> 7 divided by 3 is 2 with 1 remaining.</p> <p><b>DIV</b> Integer division (the whole number part after division) With no rounding e.g. <math>7 \text{ DIV } 2 = 3</math></p>
A	B	Y																																					
0	0	0																																					
0	1	0																																					
1	0	0																																					
1	1	1																																					
A	B	Y																																					
0	0	0																																					
0	1	1																																					
1	0	1																																					
1	1	1																																					
A	Y																																						
0	1																																						
1	0																																						
<b>Converting Boolean Expressions to Logic Circuits</b>	<b>BNAO</b> You follow the order: Brackets, NOT, AND, OR	<b>Data represented in binary Form</b>	Data is represented in computer systems in binary form. If there is electricity, we use a 1, if not, we use a 0. The 1 and 0 are stored in transistors.																																				

### Paper 2 2.6: Data Representation

Keyword	Definition	Keyword	Definition																											
<b>Units</b>																														
<b>Units</b>	Bit, nibble, byte, megabyte, terabyte, petabyte	<b>Converting between units</b>	If converting to a larger unit, divide by 1000. If converting to a smaller unit, multiply by 1000. Unless converting to/ from bits, where you use 8.																											
<b>Numbers</b>																														
<b>Denary</b>	Base 10 number system. Uses digits 0,1,2,3,4,5,6,7,8,9.	<b>Binary</b>	Base 2 number system. Uses digits 0,1.																											
<b>Hexadecimal</b>	Base 16 number system. Uses characters 0-9 and A-F.	<div style="border: 1px solid black; padding: 10px;"> <p style="text-align: center; background-color: black; color: white; margin: 0;"><b>CONVERTING DENARY TO BINARY TO HEX</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center; background-color: black; color: white;"><b>HEXADECIMAL</b></td> <td style="width: 40%;"></td> <td style="width: 40%;"></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">DENARY</td> <td style="border: 1px solid black; text-align: center;">HEX</td> <td style="border: 1px solid black; padding: 5px;">Hexadecimal <b>5F</b></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">0-9</td> <td style="border: 1px solid black; text-align: center;">0-9</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">Binary <b>0101   1111</b></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">10</td> <td style="border: 1px solid black; text-align: center;">A</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">01011111</td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">11</td> <td style="border: 1px solid black; text-align: center;">B</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">Decimal <b>95</b></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">12</td> <td style="border: 1px solid black; text-align: center;">C</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">24</td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">13</td> <td style="border: 1px solid black; text-align: center;">D</td> <td></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">14</td> <td style="border: 1px solid black; text-align: center;">E</td> <td></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">15</td> <td style="border: 1px solid black; text-align: center;">F</td> <td></td> </tr> </table> <div style="margin-top: 10px;"> <p>There are two methods for converting a HEX value to Denary</p> <p style="text-align: right;">OR:  <math>5F = (5 \times 16) + F</math>  <math>5F = 80 + 15</math>  <math>5F = 95</math></p> </div> </div>		<b>HEXADECIMAL</b>			DENARY	HEX	Hexadecimal <b>5F</b>	0-9	0-9	Binary <b>0101   1111</b>	10	A	01011111	11	B	Decimal <b>95</b>	12	C	24	13	D		14	E		15	F	
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14	E																													
15	F																													

## Key Words

**Autism:** A condition which affects how people communicate and see this world. It has different severities.

**Asperger Syndrome:** A form of autism which affects how they see, hear or feel the world.

**Ensemble:** A group of actors working together

**Directing:** The person who oversees and is in charge of the creative parts of a theatrical production

**Dictator:** A director who takes no other opinions and runs the show exactly as they want.

**Facilitator:** A director who takes on board everyone's opinions and guides towards a common approach

**Foreshadowing:** A hint/indication of a future event

**Upstage:** Back of the stage

**Downstage:** Front of the stage

**Stage Left:** Left according to the actor

**Stage Right:** Right according to the actor

**Subtext:** Hidden meaning- reading between the lines



Christopher



Ed: Christopher's father



Siobhan: Christopher's teacher



Judy: Christopher's mother

# Curious Incident

## Knowledge Organiser Drama

### Assessment and Criteria

- Directing task in pairs
- Plan how you would like a scene from the play to be performed on stage.
- Direct a group of actors to perform this scene.

### Things I NEED to know

- Christopher has autism-Asperger Syndrome
- There are 3 types of investigation in this play:
  - Who killed Wellington?
  - What/what has happened to Christopher's Mum?
  - What is it like living in this world with autism?
- Frantic Assembly helped the National Theatre create the play to show how different the world is for someone like Christopher.
- The ensemble to help create both the set, atmosphere and world.

# Artaud and Theatre of Cruelty

Year 9 2:2 Knowledge Organiser  
Drama

## Key Words

**Facial Expression:** Changing your face to show an emotion.

**Body Language:** Using your body to show a character's feelings.

**Voice:** Using your voice to show a character's emotions.

**Gesture:** Actions with your hands and arms.

**Fourth Wall:** The invisible wall at the front of the stage that separates the performers and audience.

**Audience Interaction:** When the actors break the fourth wall and involve the audience.

**Mime:** Acting without talking.

**Theatre of Cruelty:** Artaud's style of theatre that aimed to shock audiences through gesture, image, sound and lighting.

**Organised Anarchy:** How Artaud categorised his work, controlled mayhem.

## Artaud's Techniques

1. The use of mime, gesture, physical theatre and dance to communicate rather than dialogue.
2. Creating a dream world- The use of rituals, masks, traditions and striking costumes. No scenery just symbolic props.
3. High level audience interaction
4. Assaulting the audience- using lights, sound, music, images
5. Stimulate the five senses.
6. Deliberate cruelty- attack the emotions designed to shock and totally involve them.
7. Use of violent, terrifying and shocking action and images.



## Assessment and Criteria

- Practical performance
- Perform a scene you have been working on.
- Use of movement
- Stimulate the audience's five senses
- There should be physical and vocal skills to help to create the right atmosphere for the audience
- Audience interaction
- The staging should be spread out with you facing the audience
- Rehearsal skills- show you use your time efficiently and work well in your group
- Devising skills- Show you can come up with original ideas

## Historical Context

- People have been writing scripts ever since we have been writing. In Greek times, there were 4 main script writers: Aristophanes, Euripides, Sophocles and Aeschylus. Their style of acting wasn't always naturalistic-like Artaud's.
- Antoine Henri Joseph Artaud, better known as Antonin Artaud, was a French dramatist, poet, essayist, actor, and theatre director.
- He is widely recognized as one of the major figures of twentieth-century theatre and the European avant-garde.
- He is best known for conceptualizing a 'Theatre of Cruelty.'

# YR 9 Engineering *KNOWLEDGE ORGANISER - Hook*

In Design & Technology you are assessed on both the Practical and Theory work.

## Health and Safety

Safe and proper use of tools and machinery in the workshop.  
Understand the hazards and reduce the risks of incidents occurring

## Tools and Equipment

You will learn to select and use a range of hand and fixed machines for appropriate tasks. These will include Coping saw, line bender, Files and Belt sander. You will learn how to countersink holes, mark out and cut with more accuracy.

## Materials

You will be given the opportunity to use MDF, Mild Steel and Acrylic to produce your product. You will learn how to modify (cut and file) and finish (dip coat smooth and decorate)

## Final Piece

At the end of the project you will present a final product. This will be a personalised hook that will be made from dip coated Mild Steel, Acrylic and MDF

# KEYWORDS AND KEY TERMS FOR THIS PROJECT

## Plastics.

**Thermoplastic**- is a material, usually a plastic polymer, which becomes softer when heated and hard when cooled. **Thermoplastic** materials can be cooled and heated several times without any change in their chemistry or mechanical properties. When **thermoplastics** are heated to their melting point, they melt to a liquid.

**Thermoset**-is a polymer that is irreversibly hardened by curing from a soft solid or viscous liquid prepolymer or resin. Curing is induced by heat or suitable radiation and may be promoted by high pressure, or mixing with a catalyst

## Metals

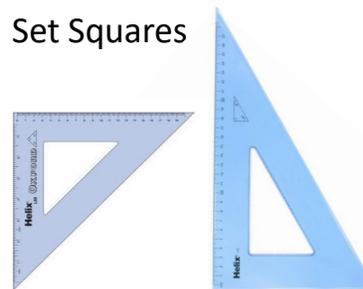
**Ferrous**- Contains Iron, examples include engineered materials such as steel and cast iron, combining an iron base with small amounts of other **metals** or elements added in. **Ferrous metals** are easily identified by their magnetic properties, as well as their poor resistance to corrosion and rust.

**Non-Ferrous**-Does not contain Iron, including aluminium, nickel, lead, tin, brass, silver, and zinc, are known for their tensile strength and present characteristics that hold an advantage over ferrous **metals**, mainly by their malleability, lighter weight, and corrosion resistivity

## Drawing boards

Technical drawing using Set squares with accuracy. Measuring using mm's

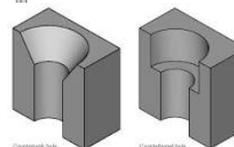
## Set Squares



## Ruler



## Countersink



## Finishing

There are different methods of finishing work;

**Draw filing** – use a file by dragging it across the acrylic

**Wet and dry** – a fine sandpaper that can be used dry and wet

**Painting** – using stain to colour MDF or wood

**Dip coating** – covering metal with plastic to protect and colour the metal

## Drilling

**Drilling** allows holes to be made in different material

**Countersinking** creates a conical shape depression that allows screwheads to lay flush.

1	Moi, je ne peux pas vivre sans mon portable parce que je <b>l'utilise</b> pour tout.	1	Me, I can't live without my mobile phone because <b>I use it</b> for everything.
2	<b>On peut prendre</b> des photos, <b>vérifier</b> ses courriers électroniques et <b>faire</b> des achats.	2	<b>You can take</b> photos, <b>check</b> your emails and <b>do</b> shopping.
3	La musique, c'est ma passion, <b>donc</b> j'utilise mon portable <b>pour télécharger</b> la musique.	3	Music is my passion, <b>therefore</b> I use my mobile phone <b>to download</b> music.
4	<b>J'aime écouter</b> de la musique <b>en rangeant</b> ma chambre ou <b>en faisant</b> mes devoirs.	4	<b>I like listening</b> to music <b>whilst tidying</b> my room or <b>doing</b> my homework.
5	J'envoie des textos à mes copains <b>pour rester</b> en contact <b>avec eux</b> et	5	I send texts to my friends <b>to stay</b> in touch <b>with them</b> and I call my parents <b>from time</b>
6	j'appelle mes parents <b>de temps en temps si je vais rentrer</b> en retard.	6	<b>to time if I am going to be home</b> late.
7	Je pense qu'internet est <b>très</b> pratique. Par exemple, <b>on peut l'utiliser pour faire</b> des	7	I think that the internet is <b>very</b> practical. For example, <b>you can use it to do</b>
8	achats en ligne. <b>J'adore faire</b> du shopping en ligne parce que c'est <b>moins cher</b> et	8	shopping online. <b>I love doing shopping</b> on line because it's <b>less expensive</b> and
9	<b>on peut faire</b> des achats <b>même si</b> les magasins sont fermés.	9	<b>you can buy</b> things <b>even if</b> the shops are shut.
10	<b>Hier je suis resté</b> à la maison et <b>j'ai voulu regarder</b> un film, donc <b>j'ai téléchargé</b> un film	10	<b>Yesterday I stayed</b> at home and <b>I wanted to watch</b> a film, therefore <b>I downloaded</b> a
11	d'horreur et <b>je l'ai regardé</b> sur ma tablette. <b>Après avoir regardé</b> le film, <b>j'ai lu</b> les blogs	11	horror film and <b>I watched it</b> on my tablet. <b>After having watched</b> the film, <b>I read</b> my
12	de mes amis et <b>j'ai posté</b> des photos sur des réseaux sociaux. C'était divertissant.	12	friends' blogs and <b>I posted</b> photos on social networks. It was fun.
13	<b>D'un côté</b> , internet a beaucoup d'avantages. C'est utile et pratique parce qu'on peut	13	<b>On one hand</b> , the internet has lots of advantages. It's useful and practical because you
14	faire ce qu'on veut en un seul clic. <b>En revanche</b> , sur internet, il y a des inconnus <b>avec</b>	14	can do what you want in just one click. <b>On the other hand</b> , on the internet there are
15	<b>qui on peut parler</b> et <b>ça pourrait être vraiment</b> dangereux, <b>surtout</b> pour les jeunes,	15	strangers <b>to whom you can talk</b> and <b>that could be really</b> dangerous, <b>especially</b> for young people.

**Model answer – La technologie.**

**French**

### Key verbs

acheter to buy  
chercher to look for  
cliquer to click  
connaître to know (someone)  
contacter to contact  
courir un risque  
croire to believe  
dire to say, to tell  
effacer to delete  
enregistrer to record  
envoyer to send  
exprimer to express  
faire confiance à to trust  
faire des achats to shop  
faire de la publicité to advertise  
imprimer to print  
menacer to threaten  
mettre en ligne to upload  
montrer to show  
partager to share  
passer du temps to spend time  
permettre to allow  
poster des commentaires to post comments  
recevoir to receive  
regarder to watch  
remplir to fill (in)  
rester en contact  
sauvegarder to save  
séduire to seduce  
se servir de to use  
souffrir to suffer  
surfer sur Internet go on the internet  
taper to type  
tchater to talk online  
télécharger to download

## Year 9 FRENCH TERMS 3 & 4

### La technologie & les médias

#### Key nouns

l'avantage (m) advantage  
le clavier keyboard  
le compte account  
la console de jeux games console  
dangereux dangerous  
le désavantage disadvantage  
l'écran (tactile) (m) (touch) screen  
le fichier file  
le genre type, kind  
l'imprimante printer  
l'inconvénient (m) disadvantage/  
drawback  
l'internaute (m) internet user  
le jeu game  
le lecteur DVD/ MP4 DVD/ MP4 player  
le logiciel software  
en ligne online  
le moniteur monitor  
le mot de passe password  
numérique digital  
l'ordinateur (m) computer  
l'ordinateur portable laptop  
l'ordinateur tablette (m) tablet  
la page d'accueil welcome  
la pile battery  
le portable mobile phone  
le site internet/web website  
la souris mouse  
le texto text  
la touche key (on a keyboard)  
le traitement de texte word processing

#### Social networks

à domicile at home  
anonyme anonymous  
but aim  
le cyber intimidation  
déçu disappointed  
désespéré desperate  
une entreprise company  
le forum (de discussion) internet forum  
la fraude fraud  
grâce à thanks to  
isolé isolated  
la réalité reality  
le réseau social social network  
le sondage survey  
le sujet subject  
virtuel(le) virtual  
le vol d'identité identity theft

#### Mobile technology

accro hooked/addicted  
l'agenda(m) diary  
l'application application  
le courrier électronique/ le mail email  
en cas d'urgence in case of emergency  
gratuit free (of charge)  
illégalement illegally  
sans without  
le smartphone smartphone  
le bienfait benefit  
la carte map  
le cerveau brain  
le chercheur researcher  
la chercheuse researcher  
le compte bancaire bank account  
la réunion meeting

#### Time markers

Normalement Normally  
D'habitude Usually  
Le weekend dernier Last weekend  
Hier soir Last night  
La semaine prochaine Next week  
Demain Tomorrow

#### Media

les actualités the news  
le baladeur MP4 MP4 player  
le billet ticket  
le chanteur/ la chanteuse singer  
la chanson song  
le dessin animé cartoon  
l'émission (f) programme  
les effets spéciaux (m) special effects  
fana de (le) a fan of  
le feuilleton soap opera  
le film de guerre war film  
le film policier detective film  
le jeu télévisé game show  
le journal newspaper  
la publicité adverts  
la séance performance  
la série series  
le sondage survey  
la télé réalité reality television  
la tournée tour  
la vedette film star

#### Adjectives

amusant fun  
barbant boring  
ennuyeux boring  
passionnant exciting  
intéressant interesting  
incroyable incredible  
fascinant fascinating  
nul rubbish

#### Expressing opinions

Pour moi For me  
Selon moi In my opinion  
À mon avis In my opinion  
Je le trouve I find it  
Je les trouve I find them  
Je pense que I think that  
  
Je me passionne pour..  
I'm passionate about..  
J'ai horreur de...  
I can't stand  
Je suis fan de... I'm a fan of...  
Ce n'est pas mon truc  
It's not my thing

Present tense verbs			
	-er	-ir	-re
<b>Je</b>	+e	+is	+s
<b>Tu</b>	+es	+is	+s
<b>Il/elle/on</b>	+e	+it	
<b>Nous</b>	+ons	+issons	+ons
<b>Vous</b>	+ez	+issez	+ez
<b>Ils/elles</b>	+ent	+issent	+ent

Perfect tense (the past)	
<b>1 – Take the correct form of avoir or être</b>	
<b>avoir to have</b>	<b>être to be</b>
Present tense	
J'ai I have	Je suis I am
Tu as You have	Tu es You are
Il a He has	Il est He is
Elle a She has	Elle est She is
On a One/we have	On est One/we are
Nous avons We have	Nous sommes We are
Vous avez You have	Vous êtes You are
Ils ont They have	Ils sont They are
Elles ont They have	Elles sont They are

<b>2 Add the verb with the correct ending</b>	
- er verbs = é	e.g. téléchargé
- ir verbs = i	e.g. rempli
- re verbs = u	e.g. vendu

### Direct Object Pronouns

The words **le**, **la** and **les** mean 'the' when they are in front of a noun, but when they come **before** a verb they change meaning

le = it, him	le - l'	Before verbs beginning with a vowel
la = it, her	la - l'	
les = them		

Je **le** trouve utile – I find **it** useful

Je **les** trouve intéressants – I love **them** interesting.

Je l'ai regardé – I watched **it**

### Disjunctive/ Emphatic Pronouns

These pronouns are used: after a preposition; for emphasis; on their own without a verb; after **c'est** and **ce sont**; in comparisons

moi- me	nous – us
toi – you	vous - you
lui – him	eux – them
elle – her	elles - them
soi – one/you/us	

Je reste en contact avec lui. I stay in touch with him

Je chatte avec eux. I chat with them.

C'est moi! It's me!

### Infinitive phrases

Je vais...I am going...	écrire un blog to write a blog faire des achats to do shopping tchater en ligne chat online
On va... We are going...	
Je voudrais...I would like..	
J'aimerais...I would like...	
J'aime/ J'adore	
Je n'aime pas/ Je déteste	
Je peux... I can...	
On peut... you can...	
Je veux I want	

Je vais envoyer un texto *I'm going to send a text*

Je peux rester en contact avec...*I can be stay in touch with...*

On peut participer à des forums. *You can join in forums.*

### Intensifiers and conjunctions

assez quite	car because
un peu a bit	donc so, therefore
si so	en revanche on the other hand
	parce que because
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### Articles

Remember!  
un/ une = a  
des = some

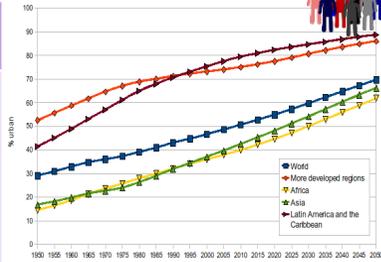
le/ la/ l' = the  
les = the

## What is Urbanisation?

This is an increase in the amount of people living in urban areas such as towns or cities. In 2007, the UN announced that for the first time, more than 50 % of the world's population live in urban areas.

### Where is Urbanisation happening?

Urbanisation is happening all over the world but in LICs and NEEs rates are much faster than HICs. This is mostly because of the rapid economic growth they are experiencing.



## Causes of Urbanisation

### Rural - urban migration (1)

The movement of people from rural to urban areas.



#### Push

- Natural disasters
- War and Conflict
- Mechanisation
  - Drought
- Lack of employment



#### Pull

- More Jobs
- Better education & healthcare
- Increased quality of life.
- Following family members.



### Natural Increase (2)

When the birth rate exceeds the death rate.

#### Increase in birth rate (BR)



- High percentage of population are child-bearing age which leads to high fertility rate.
- Lack of contraception or education about family planning.

#### Lower death rate (DR)



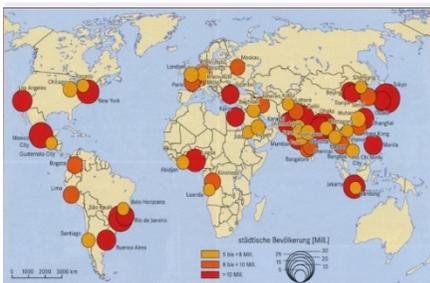
- Higher life expectancy due to better living conditions and diet.
- Improved medical facilities helps lower infant mortality rate.

## Types of Cities



### Megacity

An urban area with over 10 million people living there.



More than two thirds of current megacities are located in either NEEs (Brazil) and LICs (Nigeria). The amount of megacities are predicted to increase from 28 to 41 by 2030.

## Sustainable Urban Living

Sustainable urban living means being able to live in cities in ways that do not pollute the environment and using resources in ways that ensure future generations also can use them.



### Water Conservation

This is about reducing the amount of water used.

- Collecting rainwater for gardens and flushing toilets.
- Installing water meters and toilets that flush less water.
- Educating people on using less water.



### Creating Green Space

Creating green spaces in urban areas can improve places for people who want to live there.

- Provide natural cooler areas for people to relax in.
- Encourages people to exercise.
- Reduces the risk of flooding from surface runoff.

### Energy Conservation



Using less fossil fuels can reduce the rate of climate change.

- Promoting renewable energy sources.
- Making homes more energy efficient.
- Encouraging people to use energy.

### Waste Recycling



More recycling means fewer resources are used. Less waste reduces the amount that eventually goes to landfill.

- Collection of household waste.
- More local recycling facilities.
- Greater awareness of the benefits in recycling.

# Unit 2a Geography AQA

## Urban Issues & Challenges

### Sustainable Urban Living Example: Freiburg



#### Background & Location

Freiburg is in west Germany. The city has a population of about 220,000. In 1970 it set the goal of focusing on social, economic and environmental sustainability.



#### Sustainable Strategies

- The city's waste water allows for rainwater to be retained.
- The use of sustainable energy such as solar and wind is becoming more important.
- 40% of the city is forested with many open spaces for recreation, clean air and reducing flood risk.

### Integrated Transport System



This is the linking of different forms of public and private transport within a city and the surrounding area.

### Brownfield Site



Brownfield sites is an area of land or premises that has been previously used, but has subsequently become vacant, derelict or contaminated.

## Traffic Management



Urban areas are busy places with many people travelling by different modes of transport. This has caused urban areas to experience different traffic congestion that can lead to various problems.

### Environmental problems

- Traffic increases air pollution which releases greenhouse gases that is leading to climate change.



### Economic problems

- Congestion can make people late for work and business deliveries take longer. This can cause companies to loose money.

### Social Problems

- There is a greater risk of accidents and congestion is a cause of frustration. Traffic can also lead to health issues for pedestrians.

## Congestion Solutions

- Build ring roads and bypasses to keep through traffic out of city centres. 2+ car share lane Bristol
- Introduce park and ride schemes to reduce car use.
- Encourage car-sharing schemes in work places.
- Have public transport, cycle lanes & cycle hire schemes.
- Having congestion charges discourages drivers from entering the busy city centres.



### Traffic Management Example: Bristol

In 2012 Bristol was the most congested city in the UK. Now the city aims to develop it's integrated transport system to encourage more people to use the public transport. The city has also invested in cycle routes and hiring schemes. And the new Metrobus (linking north and south Bristol?)



### Greenbelt Area

This is a zone of land surrounding a city where new building is strictly controlled to try to prevent cities growing too much and too fast.

### Urban Regeneration



The investment in the revival of old, urban areas by either improving what is there or clearing it away and rebuilding.



**Location and Background**

Bristol is situated in the south-west of England with a population of 400,000. It was a major port and is now a centre for finance and engineering



**City's Importance**

- 8<sup>th</sup> most popular city for foreign visitors
- Has the largest concentration of silicon chop manufacturing companies outside California.
- Two big universities with good reputations – Bristol and UWE.
- Situated on the junction of the M5 and M5 with easy access to London, Wales, and Birmingham

**Impacts of national and international migration on the character of the city**

Migrants contribute taxes towards the economy of Bristol, supporting public service (schools, waste disposal, roads, sewage system).



Migrants mainly work in the low paid, unskilled jobs that Bristolians do not want to do eg restaurants and hotels.

Pressure on house prices means that the average rent in Bristol is £800 and the average house price is £514,000. Due to migration Bristol is a multicultural city with many cultural festivals – such as St Paul's Carnival

**Urban change has created challenges**

**Social:** Inner city Bristol still suffer from dereliction – Stoke's Croft and the Harbourside following the decline of industry. Inequalities in health- high rates of obesity and cancer in Filwood due to lack of income and education

**Economic:** In parts of the city deprivation is high. Filwood is in the top 10% of most deprived areas in England.

**Environmental:** Bristol is the most congested city in England. Urban sprawl has led to more congestion and loss of the countryside (Bradley Stoke)

**How urban growth has created city's opportunities**

**Social:** 2 large footballs teams, 1 rugby team and major cricket ground. Great Shopping opportunities – Cribbs Causeway and Cabot Circus. Bristol Hippodrome welcomes west end musicals regularly

**Economic:** 50 electronic and IT companies have been attracted to Bristol in recent years. Big employers such as Airbus, Rolls Royce and Lloyds TSB have their HQs in Bristol

**Environmental:** Bristol has 300 parks and 1/3 of the city is set aside for open space. In 2015 Bristol was awarded European Green Capital. It was heralded for its commitment to clean transport and energy, and its role as a low-carbon hub of industry.

**Bristol Harbourside urban regeneration**

**Why was it needed:** The old Harbour was once thriving and busy but the River Avon was too narrow and tidal for boats to fit down. SO the port moved to Avonmouth

**Main features:** Brownfield sites and derelict buildings pulled down, replaced with office blocks, apartments, museums, restaurants and pubs. 3000 jobs created from a £300 million investment. BUT High cost of property – av price £600,000 and the area would suffer in a recession.

**Location and Background**

Rio is a coastal city situated in the South East region of Brazil within the continent of South America. It is the second most populated city in the country (6.5 million) after Sao Paulo.



**City's Importance**

- Has the second largest GDP in Brazil It is headquarters to many of Brazil's main companies, particularly with Oil and Gas.
- Sugar Loaf mountain is one of the seven wonders of the world.
- One of the most visited places in the Southern Hemisphere.
- Hosted the 2014 World Cup and 2016 Summer Olympics.

**Migration to Rio De Janeiro**

The city began when Portuguese settlers with slaves arrived in 1502. Since then, Rio has become home to various ethnic groups.



However, more recently, millions of people have migrated from rural areas that have suffered from drought, lack of services and unemployment to Rio. People do this to search for a better quality of life.

This expanding population has resulted in the rapid urbanisation of Rio de Janeiro.

**City Challenges**

**Social:** There is a severe shortage of housing, schools and healthcare centres available. Large scale social inequality, is creating tensions between the rich and poor.

**Economic:** The rise of informal jobs with low pay and no tax contributions. There is high unemployment in shanty towns called Favelas

**Environmental:** Shanty towns called Favelas are established around the city, typically on unfavourable land, such as hills. Congestion on mountain roads. Pollution in Guanabara Bay

**City's Opportunities**

**Social:** Standards of living are gradually improving. The Rio Carnival is an important cultural event for traditional dancing and music. 19 out of the 50 top schools are in Rio. Life expectancy is 78 in Rio whereas it is 73 in Brazil

**Economic:** Rio has one of the highest incomes per person in the country. The city has various types of employment including oil (Petrobras, retail and manufacturing.

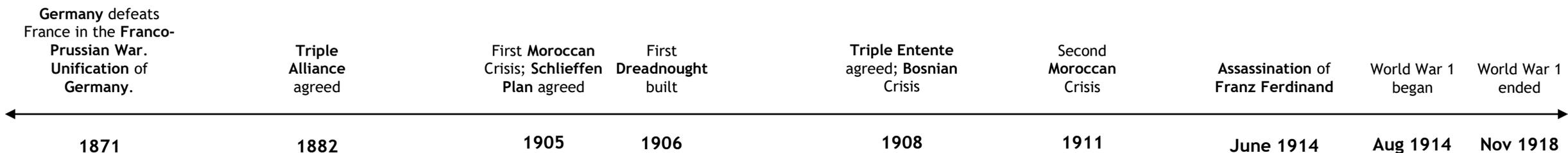
**Environmental:** The hosting of the major sporting events encouraged more investment in sewage works and public transport systems.

**Self-help schemes - Favela, Bairro Project**

- 100% mortgages available for people to buy their homes
- Government has demolished houses and created new estates.
- Community policing has been established, police pacification (UPP) along with a tougher stance on gangs with military backed police.
- Cable car built for locals to access the city . People given one free ticket a day.



# Y9 History Knowledge Organiser: The Causes of World War I



## KPI 1 The Significance of World War I

The nature and scale of World War I was different to any previous war.

War began in **August 1914** and lasted until **11<sup>th</sup> November 1918**.

Most fighting took place on the **Western Front** and the **Eastern Front**, though also in the **Middle East** and **Asia**.

### Casualties



**10 million** men died in battle.  
**20 million** were wounded physically or mentally.

### Political change



**Opposition** to the war in **Russia** led to a **communist revolution**.  
The **Tsar** and his family were murdered by the **revolutionaries**.

### The changing nature of war



New weapons - **artillery**, machine guns, aeroplanes, battle ships, submarines, and poison gas - changed how war was fought.



New weapons led to the development of **trench warfare**. Soldiers attacked by 'going over the top'



The causes of the war are hugely complicated. No one nation deserves all the blame.

But there is an **overriding** case that German **recklessness** contributed more than anything else to make a conflict intended to settle a local **squabble** **escalate** into a European war.

[British historian Max Hastings]

## KPI 2 Nationalism

The early 20<sup>th</sup> Century saw the rise of intense nationalism across Europe.

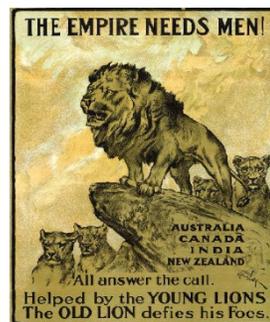


### Germany

Germany was a new country. **Unification** had only taken place in 1871. Rapidly, Germany had become the most powerful country on **mainland Europe**. It had a powerful **industrial economy** and looked after it's workers with a **welfare state**.

Germany was not a true democracy. **Kaiser Wilhelm II** controlled the most important decisions. Although he was **Queen Victoria's** grandson, Kaiser Wilhelm was envious of British power. He wanted to turn Germany into a great world power to rival - and maybe replace - Britain.

**Wilhelm's** plans were under threat however. He worried that the rise of **socialism** and **democracy** in Germany would soon mean that he would not be able to take the decisions he needed to make Germany great.



### Britain

British nationalism was based on 200 years of **imperial** and **naval dominance**. The 'penny press' celebrated British superiority in novels such as **The Battle of Dorking**.

### France

France had been defeated by Germany in the **Franco-Prussian War** in 1871. In the 1900s, French politicians tried to **restore** their country's pride and adopted a policy of **revanche**.

# Y9 History Knowledge Organiser: The Causes of World War I

## KPI 3 Imperialism

During the 19<sup>th</sup> Century, European countries developed overseas empires. They did this for several reasons:



**Prestige** - Having a large empire was a sign of a country's superiority. Germany, in particular, wanted to gain colonies to gain equality with Britain.



**Trade** - European economies needed to find raw materials to produce manufactured goods. They also needed colonies to provide markets for these goods.



**Strategy** - In some cases, European empires colonised territory just to stop a rival empire expanding further. This was especially true in Africa.

As European empires expanded, tensions grew between them, creating flashpoints:

In AFRICA, Kaiser Wilhelm tried to gain a 'place in the sun' for Germany, leading to flashpoints in Morocco in 1905 and 1911.



In THE BALKANS, Austria-Hungary and Russia wrestled for control of countries created by the collapse of the Ottoman Empire, leading to flashpoints such as the 1908 Bosnian Crisis.

## KPI 4 Militarism

Nationalism and imperialism led to aggressive militarism in all European nations.

Increased influence of the military



Many army generals followed the ideas of **Social Darwinism** and so believed that war was good for the world because it allowed the strong to triumph over the weak.

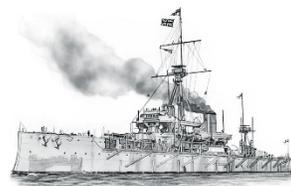


In Germany and Russia, generals pressured governments into following a more aggressive policy. For example, German generals persuaded the Kaiser to agree to the **Schlieffen Plan**: a plan to defeat France before Russia could mobilise soldiers.

The Arms Race

As the risk of war increased, countries began to expand their armed forces. Every country apart from Britain introduced conscription in the 1900s. Between 1900 and 1914, Germany increased military spending by 73%.

A naval arms race developed between Germany and Britain with both sides competing to build new **Dreadnoughts**. Between 1909 and 1911, Germany built 9 Dreadnoughts whilst Britain built 18.



## KPI 6 The Assassination of Archduke Franz Ferdinand

In June 1914, an assassination triggered a European war.



Archduke Franz Ferdinand was the heir to the throne of the Austro-Hungarian Empire.

On 28<sup>th</sup> June 1914, Franz Ferdinand visited Sarajevo, the capital of Bosnia, part of Austria-Hungary. Many Bosnians did not want to be part of Austria-Hungary but be united with Serbia.

The Archduke and his wife were assassinated by a gang of Bosnians led by Gavrilo Princip. The assassins had been given weapons by members of the Serbian government.



In response, Austria-Hungary prepared to retaliate against Serbia. They secured the agreement of Germany to support them - no matter what. This was known as the German 'blank cheque'.



On 31 July, Russia mobilized its army to protect Serbia from Austria-Hungary and Germany.

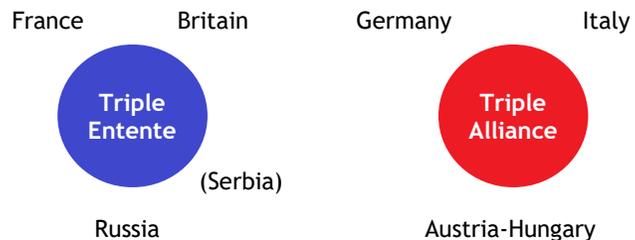
Following the Schlieffen Plan, Germany attacked France. Britain, as part of the Triple Entente, declared war on Germany and her allies on 3<sup>rd</sup> August.

## VOCABULARY

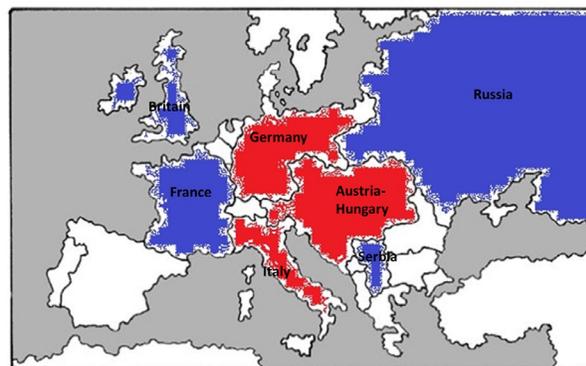
<b>Alliance</b>	An agreement between two countries to support each other in war
<b>Arms race</b>	Competition to build the largest military / most weapons
<b>Assassinated</b>	Shot dead
<b>Conscription</b>	Forcing all men of a certain age to join the army
<b>Dreadnought</b>	Fast modern battleship equipped with large guns
<b>Escalate</b>	Become more serious
<b>Flashpoints</b>	An event where tension could potentially lead to violence
<b>Kaiser Wilhelm</b>	German king
<b>Markets</b>	Places where goods could be sold
<b>Militarism</b>	The army having power / expanding the army and navy
<b>Mobilise</b>	To get an army ready for battle
<b>Nationalism</b>	Believing that your country is superior to others
<b>Over the top</b>	Attacking out of a trench
<b>Overriding</b>	Most important
<b>Penny Press</b>	Cheap books and newspapers
<b>Prestige</b>	Respect and admiration from others
<b>Raw materials</b>	Coal, wood, minerals etc used to manufacture goods
<b>Recklessness</b>	Not being careful
<b>Restore</b>	Bring back
<b>Retaliate</b>	Attack somebody in return for them attacking you
<b>Revanche</b>	French word for revenge (on Germany)
<b>Squabble</b>	An unimportant disagreement
<b>Strategy</b>	Long term plan
<b>Tsar</b>	The king of Russia
<b>Unification</b>	When different places are brought together to form one country

## KPI 5 Alliances

In order to protect themselves, countries negotiated alliances with other countries.

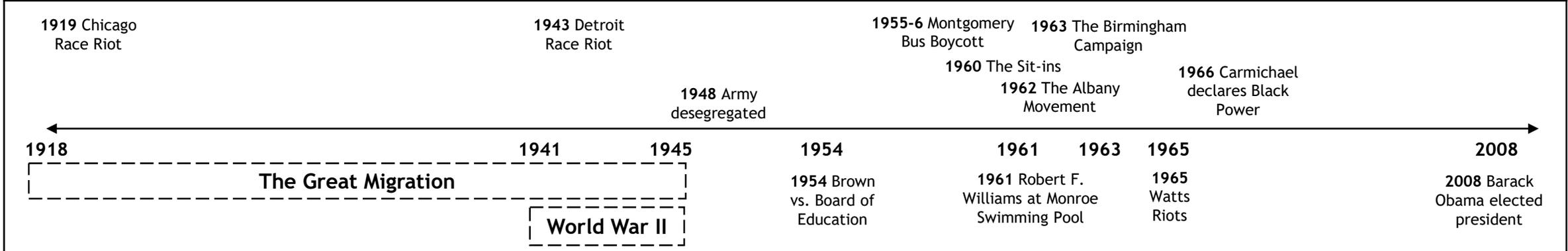


Each member of the alliance promised to declare war if another member of the alliance was attacked.



# Y9 History Knowledge Organiser: The Struggle for Civil Rights

## KPI 1 Timeline



## KPI 2 The Great Migration



Between World War I and World War II, **1.6 million African Americans** moved away from the rural South to the big cities of the North and West, such as **Chicago** and **Los Angeles**.

This movement of people is known as the **Great Migration**.

On the one hand, the Great Migration improved the lives of African Americans

On the other hand, the lives of African Americans remained difficult

- ✓ There were no Jim Crow **segregation** laws in the North
- ✓ Migrants escaped **sharecropping** and got well-paid factory jobs
- ✓ African Americans could vote in the North and elected **representatives in Congress** to fight for Civil Rights

- ✗ White northerners did not want black neighbours. African Americans' homes were **firebombed**.
- ✗ Black northerners therefore lived in all-black **ghettoes** with poor facilities and high crime
- ✗ Competition for housing and jobs caused the **Chicago race riot** in 1919. 38 were killed.

## KPI 2 World War II

Between 1941 and 1945, African Americans contributed to the war effort in World War II. They fought for a **'Double Victory'**

- Victory against Hitler abroad
- Victory against Jim Crow at home

African Americans continued to face problems



25 black men were killed in the **1943 Detroit Riot** as African Americans competed with white Detroiters for jobs and housing



The army was strictly **segregated**

African Americans made progress



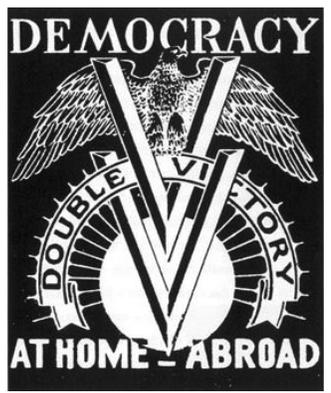
500,000 African Americans left the South to work in **armaments factories** in the North



The **Tuskegee Airman** flew over 15,000 missions, winning respect from white crews

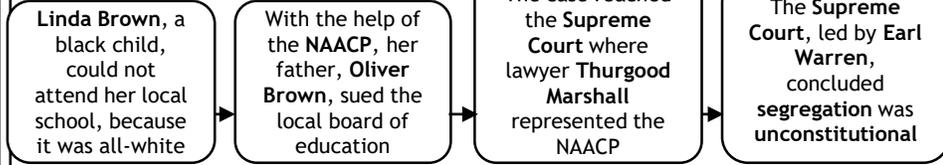


After the war, in 1948, **President Truman desegregated** the armed forces



## KPI 4 Brown vs. Board of Education 1954

### Brown vs. Board of Education



The **Brown vs. Board Supreme Court** decision was hugely significant because...

1. ...it overturned the **1896 Plessy vs. Ferguson** decision, leading to challenges to **segregation** in other areas
2. ...it revealed that **white supremacist** ideas were becoming less popular
3. ...it forced the government to support the **desegregation** of schools

### Successes of desegregation

- ✓ By 1988, 45% of black students attended schools that were previously **segregated**
- ✓ The **federal government** showed support for **desegregation**. In 1957, President **Eisenhower** sent the army to **Little Rock, Arkansas** to force schools to accept black students.
- ✓ Schools introduced **busing** programmes to attempt to overcome with **residential segregation** in the North

### Ongoing problems

- ✗ When **desegregation** was announced, many white parents sent their children to private schools that black families could not afford
- ✗ In the South, state governments simply refused to comply with the **Supreme Court** order to **desegregate** schools
- ✗ In the North, white parents protested against **busing** programmes that brought black students into white schools

## KPI 5 Montgomery Bus Boycott

In 1955, **Rosa Parks** was arrested for refusing to remove from the front seat of a bus in **Montgomery, Alabama** to make space for a white passenger. She was following in the footsteps of **Claudette Colvin**, a black teenager, who had been arrested earlier that year for the same offence.

**Parks'** arrest sparked a boycott of **Montgomery's** buses that lasted 381 days. With no **income** from black passengers, the bus company was forced to give in and **desegregate** buses.

The **NAACP** took **Colvin's** case to the **Supreme Court**. In 1956, the Court concluded that segregation on buses was unconstitutional.



### LEADERSHIP

**Parks** was an ideal **figurehead** for the **boycott** because she was mild-mannered and well respected.

The **boycott** was led by a local **pastor**, **Martin Luther King**, who used his **rhetorical brilliance** to keep the **boycott** going.



### UNITY

Although there were many different African American groups in **Montgomery**, they united to form the **Montgomery Improvement Association** and accepted the leadership of **Martin Luther King**. 40,000 residents joined the **boycott**.



### ORGANISATION

King and Parks were key figures in the boycott, but the **Women's Political Council** did the majority of the organising. They distributed **leaflets** and organised **car pools** to get people to work without using the city buses.



### SUPREME COURT

Although the city government in **Montgomery** supported the bus company, **Earl Warren's Supreme Court** again took the side of African Americans. The Court concluded that segregation on buses was **unconstitutional** in 1956.

Despite the victory over segregation, violence continued:



King's house was firebombed during the boycott

Snipers shot at black passengers sitting in the front seat of desegregated buses

## KPI 6 Robert F. Williams

**Robert F. Williams** did not share King's complete commitment to peaceful protest.

**Robert F. Williams** lived in **Monroe**, North Carolina.

To defend African Americans from the **Monroe Ku Klux Klan**, Williams set up an armed self-defence group called the **Black Guard**.

**Desegregating the Monroe Swimming Pool**



**Monroe** swimming pool was **segregated**. There was no swimming pool for black children.



The **Monroe NAACP** picketed the pool peacefully to protest against **segregation**.

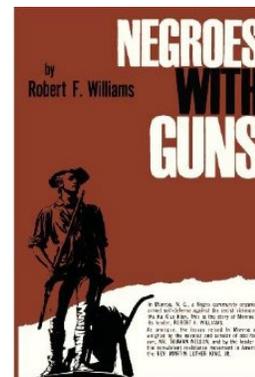


In 1961, **Klan** members shot at the pickets in an attempt to **intimidate** them. The police ignored the Klan and refused to protect the protest.



**Williams** and the **Black Guard** confronted Klan with guns, eventually forcing the police to protect the **pickets** to avoid bloodshed.

"If the law cannot be enforced...it is necessary to resort to violence... it is time for negro men to stand up and be men."



**The dangers of self-defence**

- Williams** was targeted by the **FBI** and was forced to flee to **Cuba** in 1961
- King and other black leaders criticised Williams' approach, leading to a split in the Civil Right movement

## Vocabulary

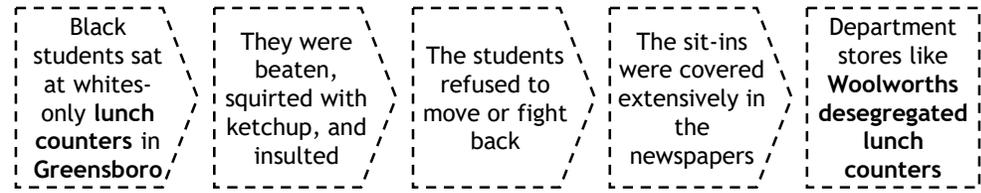
<b>Armaments factory</b>	A factory where weapons for war are made
<b>Boycott</b>	To stop using/buying something in protest
<b>Brown vs. Board</b>	A court case that tried to end segregation in schools
<b>Busing</b>	A policy where children were put on a bus to go to a school in another area, to help desegregate them
<b>Congress</b>	American parliament
<b>Decolonisation</b>	Colonies gaining their independence from an empire
<b>Desegregate</b>	Ending segregation
<b>Deter</b>	To put someone off doing something
<b>FBI</b>	Undercover government detective agency
<b>Figurehead</b>	A leader of a movement
<b>Ghettos</b>	A poor part of a city
<b>Great Migration</b>	The movement of African-Americans from southern USA to the North
<b>Jim Crow</b>	Racial system in the South
<b>Looting</b>	To steal during a riot
<b>NAACP</b>	An African-American group who challenged segregation through the courts
<b>Picket</b>	Standing outside a place in protest
<b>Race Riot</b>	A riot caused by unfairness to one race
<b>Representatives</b>	Members of the USA's congress
<b>Segregation</b>	Separating the races
<b>SNCC</b>	(Snick) A non-violent student protest group
<b>Supreme Court</b>	The most powerful law court in America
<b>Tuskegee Airmen</b>	African-American pilots in WWII
<b>Unconstitutional</b>	Illegal
<b>White Supremacy</b>	The ideology that white people are naturally superior to other races

### KPI 7 Peaceful Protest

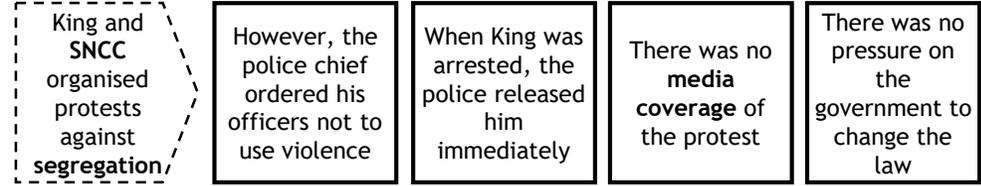
Martin Luther King developed a philosophy of non-violent, peaceful protest...



This inspired other attempts to challenge segregation, such as the Greensboro Sit-ins in 1960...



However, King's strategy relied on the police or the Klan reacting with violence, which didn't happen in Albany...



In 1963, King therefore chose to protest segregation in Birmingham, where he knew the police chief - Bull Connor - would respond with violence...



### KPI 8 Watts

In 1965, a riot broke out amongst young African Americans in Watts, Los Angeles

The riots lasted for 6 days and caused \$200 million of damage

Rioters looted from shops and shot at police and fire fighters

14,000 troops were sent to stop the riot



The causes of the riot were complex and revealed that African Americans in the North and West faced different problems to African Americans in the South...

**Residential Segregation**  
There were no Jim Crow laws outside the South.  
However, poverty and discrimination trapped African Americans in ghettos with poor schools and high crime rates.

**Unemployment**  
Racist hiring practices made it difficult to find work.  
The unemployment rate in Watts was more than twice the unemployment rate in the rest of California.

**Police Brutality**  
The white-dominated LAPD was known to discriminate against black residents.  
The riots were triggered by police beating a black man under arrest for drink driving.

**Emasculation**  
Male residents of Watts felt emasculated by their failure to earn money for their family or stand up to police violence.  
This created an atmosphere of resentment.

### KPI 9 Black Power

Stokely Carmichael and Black Power

In 1966, Stokely Carmichael called for Black Power. This meant:

- taking pride in being black
- building the strength and power of the black community
- fighting back, to deter white Americans from using violence against African Americans

"We need to build a power base so strong that we can bring the whites to their knees every time they mess with us."



The Black Panther Party for Self-Defence was inspired by Carmichael's message. The Black Panthers...



...openly carried weapons and wore military uniform



...provided services, such as free breakfast programme

Black Power increased black pride by...



...celebrating African Americans' natural appearance, for example the afro



...making links with the decolonisation movement in Africa

### KPI 10 Changes since 1970

Since the 1970s, African Americans have continued to make progress in many areas...



Barack Obama became the first African American president when he was elected in 2008.



Thurgood Marshall became the first black Supreme Court justice when he was appointed in 1967.



Music that developed out of black communities, such as rap and hip hop, has become mainstream and remains hugely popular

However, significant problems remain...



Unemployment and poverty continue to cause problems for African Americans. 25% live below the poverty line.



Today, America sends more people to prison than any country in the world. 40% of the prison population is black.



Although legal segregation has ended, residential segregation continues to confine African Americans to ghetto neighbourhoods



Black men are more likely to be victims of police violence than any other group. 229 black men were killed by police in 2018.

## Learning Aim A. Publishing and interactive products.

Keyword	Definition	Keyword	Definition
<b>Sector:</b> <b>Interactive</b>	Media products that require your input in order use them (clicking on buttons!). They respond to your input. Examples include: websites, mobile apps, games, E-magazines, advertisements.	<b>Purpose of media text:</b> <b>information</b>	These are factual based media products. They may include video or picture evidence and expert knowledge and opinions. <b>Examples:</b> The news, documentaries, public information broadcasts, factsheets. Blue Planet, Newsround, The Guardian.
<b>Purposes of media products for producers / uses for the viewer</b>	Entertainment, education, information, raising awareness, inspiration, experimentation, critical acclaim.	<b>Secondary purpose</b>	Outside of the product's primary purpose, the producers may also intend the product to have a secondary purpose.
<b>Audience</b>	A group of people who encounter a media text. This could be watching, listening, using or playing a media text. Media producers use audience research to find out as much as possible about their target audience and use that research to ensure their production will appeal.	<b>Primary audience</b>	The audience that the media producer has in mind for consuming the text. This is the audience they intend to target – e.g Children are the primary audience for Disney films.
<b>Secondary audience</b>	Audiences that engage with the product who are NOT who the media producer intends to target – e.g parents are the secondary audience for Disney films.	<b>Demographics</b>	The study of people and particular groups within the population.
<b>Audience categorisation</b>	<b>Gender</b> - the range of characteristics relating to, and differentiating between, masculinity and femininity. <b>Age</b> – usually split into age groups e.g. 30-40 years old. <b>Ethnicity</b> - belonging to a social group that has certain characteristics in common such as race, religion or cultural traditions.	<b>Psychometric audience profile / lifestyle profiles.</b>	These define an audience by how they think and by considering their values, attitudes and lifestyle (VALs). People can be classed as 1 of the following: <b>The Aspirer</b> -seeks status. <b>The Explorer</b> - seeks discovery. <b>The Mainstreamers</b> -seeks security. <b>The Reformer</b> - seeks enlightenment. <b>The Resigned</b> - seeks to survive. <b>The Struggler</b> - seeks to escape. <b>The Succeeder</b> - seeks control.
<b>Socio-economic groups</b>	A method of dividing the population into groups usually based on income and occupation. A, B, C1, C2, D, E.	<b>USP</b>	Unique Selling Point. What has been done with the product to make it unique?
<b>Benefit</b>	Audiences can benefit from media products. For example using social media to promote their business, learning about the world by watching a documentary, learning about the criminal justice system whilst watching a movie. A secondary audience may benefit from a product too – adults buying children's magazine may pick up tips about how to teach their children to read, for example.	<b>Hypodermic needle theory</b>	The Hypodermic needle theory suggests that the mass media are in a position of power and messages are injected directly into the brains of weak and passive audiences.

Keyword	Definition	Keyword	Definition
<b>Audience reception theories</b>	Developed by Stuart Hall. Media producers use codes to 'tell' their story. Whether we pick up on those codes depends largely on our cultural background. If we understand and do not question the producer's message we have the dominate response. If we can see what the media producers are trying do but use our own experiences to form an opinion we have the negotiated response. If we completely reject the producer's code and do not understand what they are trying to do we have the oppositional response.	<b>Uses and Gratifications theory</b>	The Uses and Gratifications Theory suggests there are certain uses an audience has for different media texts and that we get different forms of gratification from them: <b>Entertainment and diversion</b> – The audience want to be informed and educated. Help the audience to find out what is happening in the world. <b>Information and education</b> – The audience gets to escape from their everyday lives. Divert their attention from the real world. <b>Social interaction</b> – The audience can compare their life experiences with those represented in it. Empathising and identifying with characters or content represented in them. <b>Personal identity</b> – The audience can interact with other audience members. Get people talking while the action is still happening.
<b>Production</b>	You might <b>also</b> consider aspects of <b>production</b> <u>if</u> they have a bearing on targeting audiences or shaping the product for its specific purpose. Stages in magazine production: Planning and Preparing Content Production, Printing, and Distribution	<b>Distribution</b>	You might <b>also</b> consider aspects of <b>distribution</b> <u>if</u> they have a bearing on targeting audiences or shaping the product for its specific purpose. Distribution refers to the methods by which media products are delivered to audiences.
<b>Marketing</b>	You might <b>also</b> consider aspects of <b>marketing</b> <u>if</u> they have a bearing on targeting audiences or shaping the product for its specific purpose. <b>Marketing</b> is the process of interesting potential customers in a product. The keyword is "process"; <b>marketing</b> involves researching, promoting, selling, and distributing your products or services.	<b>Revenue</b>	The user may get the product for free (for example an app) but the product may still need to generate revenue (income) for example by: <i>one time purchase, in-app purchases, sponsorship, advertising, paid premium subscriptions.</i>
<b>The relationship between purpose, audience and product.</b>	Programme X achieves X by doing X.  <b>Example:</b> Coronation Street's purpose links well to its target audience because the target audience would be more interested in non-informative television programmes than informative ones. See my full example.	<b>Interactivity</b>	Refers to the way the user can make choices when using the product. <b>Examples include:</b> <i>Playing, trading, co-operating, talking, texting, uploading, posting, comments, editing, likes, shares, building avatars, profiles, making selections, setting stats, moves, interacting with other characters/players, weapons, operations, tasks, online gaming, purchases, downloads, leader-boards</i>
<b>Premise</b>	The underlying idea behind the product.	<b>Bibliography</b>	A list of sources of information that you have used. This goes at the end of your work and is likely to be mainly website addresses.

# Year 9 – BTEC Music Component 1

## Music Knowledge Organiser

<b>The Elements of Music</b>	<b>Definitions</b>
<b>Pitch</b>	The pitch is how high or low the sounds/notes are. For example: A scale of notes rises in pitch by step.
<b>Tempo</b>	The tempo is the speed of the music. For example: how fast or slow the music is being played.
<b>Dynamics</b>	The volume of the music. For example: how loudly or quietly the music is being played.
<b>Duration</b>	The length of notes. For example: a minim lasts for two beats.
<b>Texture</b>	The layers within a piece of music. For example: how thick or thin the music is and how the parts within the music relate to each other.
<b>Timbre</b>	The quality and type of sound produced by an instrument. For example: string, brass, percussion, woodwind, voice.
<b>Silence</b>	The absence of music sounds. For example: in music, rests are written to show where the player should be silent.

### **Stylistic music features (music theory)**

<b>Instrumentation</b>	Instrument specific techniques, playing in an ensemble, manipulating electronic sounds
<b>Scales and Modes</b>	Major scales, minor scales, blues scale, pentatonic scale, modes, ragas, exotic scales
<b>Harmony skills</b>	Major triads, minor triads, power chords, 7 <sup>th</sup> chords, extended chords, suspensions, chord inversions, arpeggios/broken chords
<b>Rhythmic skills</b>	Metre, tempo/bpm, syncopation, swing, skanking, polyrhythms, hemiola
<b>Melodic skills</b>	Conjunct, disjunct, chromatic, diatonic, phrasing, pattern/sequence, ornamentation, canon (round), riffs/hooks, improvisation
<b>Production Skills</b>	Sampling, FX, looping, quantisation, automation, microphone selection/placement, MIDI, audio editing
<b>Performance</b>	Instrumentation, vocal ranges, timbre, FX, transposing, arrangements, ensemble skills, timing, sensitivity
<b>Composition</b>	Stimuli (starting points), repetition, developing and extending musical ideas

## Key Performance & Rehearsal Skills

<b>Rhythm and timing</b>	Being able to play rhythms accurately and stay in time with other musicians, keeping the music together.
<b>Accuracy of pitch</b>	Being able to sing or play the correct notes, ideally from sheet music.
<b>Intonation/tuning</b>	Being able to stay in tune and not go sharp or flat when playing or singing.
<b>Phrasing &amp; breath control</b>	Controlling your breathing so that you can sing or play through a phrase showing musical shape.
<b>Learning songs &amp; following an accompaniment</b>	Being able to tackle a new song/piece of music and the ability to follow a live or pre-recorded accompaniment part.

## Key Composition Skills

<b>Creating chord sequences</b>	Using major and minor triads from within a key to create patterns of chords.
<b>Using musical starting points</b>	Using a musical/visual stimuli to inspire continuation of an initial idea.
<b>Exploring musical structures</b>	Taking inspiration from other pieces of music or songs to create a structure that suits your idea. E.g. ABABA, popular song, variations on a theme.
<b>Using rhythmic and melodic rhythms</b>	Exploring and creating patterns of notes in certain orders to create playable rhythms for both accompaniment and for melodies (tunes)

## Key Production Skills

<b>Recording and editing audio (voice and instruments)</b>	Exploring how to record using music technology musical instruments and voices. Also how to edit out errors and record multiple layers.
<b>Exploring digital recording software and tools</b>	Exploring how to use music technology equipment and computer software to create a music recording.
<b>Using effects</b>	Exploring the use of reverb, echo, delay, distortion and other vocal and instrumental effects.

<b>Genres of music to research</b>	<b>Development of music technology to research</b>
<p>Popular Music:</p> <ul style="list-style-type: none"> <li>• <b>60s – 70s</b> – Psychedelic, heavy metal, soul, Motown, punk, reggae</li> <li>• <b>80s– 90s</b> – synth pop, Britpop, hip-hop, disco, rave, techno</li> <li>• <b>00s – present day</b> – nu metal, pop punk, dubstep, K-pop, grime, acoustic</li> </ul>	<p>The Impact of technology on musical styles and genres:</p> <ul style="list-style-type: none"> <li>• Phasing, Scratch techniques, fusion</li> <li>• Looping &amp; multitracking</li> <li>• Instrumental techniques</li> <li>• Audio recording</li> <li>• Sampling</li> <li>• Distribution</li> </ul>

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## Genres of music to research

### Popular Music:

- **60s – 70s** – Psychedelic, heavy metal, soul, Motown, punk, reggae
- **80s- 90s** – synth pop, Britpop, hip-hop, disco, rave, techno
- **00s – present day** – nu metal, pop punk, dubstep, K-pop, grime, acoustic

## Development of music technology to research

### The Impact of technology on musical styles and genres:

- Phasing, Scratch techniques, fusion
- Looping & multitracking
- Instrumental techniques
- Audio recording
- Sampling
- Distribution

Year 9 Cycle 2  
Subject Organiser: Mental health

What are mental health problems?

Mental health problems include a wide range of experiences: some problems may be quite mild or moderate, while others may take on a more severe form, affecting a person's ability to cope with day-to-day living. You may have heard about some of the more common problems, such as depression, anxiety, self-harm, eating disorders, schizophrenia, psychosis, stress and bipolar disorder.

How to keep a positive mental health:

**Manage your stress levels**

If you have a lot of stress in your life, find ways to reduce it, such as learning a few [time-management techniques](#). Introduce [regular exercise](#) and time to yourself. These are positive changes. Taking control of your time in this way can effectively reduce stress. If you have feelings of anxiety along with your stress, breathing techniques can help.

**Enjoy yourself**

Doing things that you enjoy is good for your emotional wellbeing. Simple activities like watching sports with a friend, having a soak in the bath or meeting up with friends for coffee can all improve your day. Doing something you're good at, such as cooking or dancing, is a good way to enjoy yourself and have a sense of achievement. Try to avoid things that seem enjoyable at the time but make you feel worse afterwards, such as drinking too much alcohol or eating junk food.

**Have a healthy lifestyle**

Limit your alcohol intake - When times are hard, it's tempting to drink alcohol because it "numbs" painful feelings. But it can exaggerate some feelings and make you feel angry or aggressive. It can also make you feel more depressed. Choose a well-balanced diet. Making healthy choices about your diet can make you feel emotionally stronger. You're doing something positive for yourself, which lifts your self-esteem. A good diet helps your brain and body work efficiently, too. Aim to have a balanced diet that includes all the [main food groups](#).

**Do some exercise**

Even moderate exercise releases chemicals in your brain that lift your mood. It can help you [sleep better](#), have more energy and [keep your heart healthy](#). Choose an exercise that you enjoy. If it helps, do it with a friend or listen to music. Adults should aim for 150 minutes a week.

**Get enough sleep**

Around 7 to 8 hours is the average amount of sleep an adult needs for their body and mind to fully rest. Writing a "to do" list for the next day before bed can organise your thoughts and clear your mind of any distractions.

**Talk and share**

Communication is important, whether it's with a friend, family member or counsellor. Talking things through helps you to release tension, rather than keeping it inside. It helps strengthen your relationships and connect with people. Lots of people find talking to a counsellor about things that are troubling them very helpful.

**Build your resilience**

Resilience is what allows you to cope with life's ups and downs.

Making something worthwhile out of painful times helps your resilience grow.

Starting a support group to help others, or making something creative out of bad experiences by, for example, writing, painting or singing, can help you express pain and get through hard times.

What are the early signs of mental health problems?

The first signs of mental health problems will differ from person to person and are not always easy to spot. In many cases of moderate depression or anxiety – the most common mental health problems – the person becoming distressed may not display symptoms, or may seek to hide them because they worry about what others will say or think about them. The signs can often be more noticeable to other people first: for instance, if your mood starts changing, it may take some time for you to become aware of it; other people may be much more conscious of the difference. Some common early signs of a mental health problem are:

- Losing interest in activities and tasks that were previously enjoyed.
- Poor performance at work.
- Mood swings that are very extreme or fast and out of character for you.
- Self-harming behaviour, such as cutting yourself.
- Changes in eating habits and/or appetite: over-eating, bingeing, not eating.
- Loss of, or increase in, sexual desire.
- Sleep problems.
- Increased anxiety, looking or feeling 'jumpy' or agitated, sometimes including panic attacks.
- Feeling tired and lacking energy.
- Isolating yourself, socialising less; spending too much time in bed.
- Wanting to go out a lot more, needing very little sleep, feeling highly energetic, creative and sociable, making new friends rapidly, trusting strangers or spending excessively – this may signal that you are becoming high.
- Hearing and seeing things that others don't.
- Other differences in perception; for example, mistakenly believing that someone is trying to harm you, is laughing at you, or trying to take over your body.

Why is there so much stigma attached to mental health?

Society in general has stereotyped views about mental illness and how it affects people. Many people believe that people with mental ill health are violent and dangerous, when in fact they are more at risk of being attacked or harming themselves than harming other people. The situation is exacerbated by the media. Media reports often link mental illness with violence, or portray people with mental health problems as dangerous, criminal, evil, or very disabled and unable to live normal, fulfilled lives.

Why do mental health problems have more stigma than physical?

Generally, with physical health problems it is obvious to see that people are in pain – often in a wheel chair, crutches e.t.c. The pain and problem is obvious. However, mental health issues cannot be seen as they are a state of the mind and therefore, people

have trouble relating to that persons illness and problem and therefore, stereotype them.

### Mental health issues:

- Depression - Depression is when you feel persistently sad for weeks or months, rather than just a few days. Depression affects people in different ways and can cause a wide variety of symptoms. They range from lasting feelings of sadness and hopelessness, to losing interest in the things you used to enjoy and feeling very tearful. Many people with depression also have symptoms of anxiety.
- OCD - Obsessive compulsive disorder (OCD) is a mental health condition where a person has obsessive thoughts and compulsive activity. An obsession is an unwanted and unpleasant thought, image or urge that repeatedly enters a persons mind, causing feelings of anxiety, disgust or unease. A compulsion is a repetitive behaviour or mental act that someone feels they need to carry out to try to temporarily relieve the unpleasant feelings brought on by the obsessive thought. For example, someone with a fear of their house being burgled may feel they need to check all the windows and doors are locked several times before they can leave the house.
- Schizophrenia - Schizophrenia is a long-term mental health condition that causes a range of different psychological symptoms, including: hallucinations – hearing or seeing things that do not exist, delusions – unusual beliefs not based on reality that often contradict the evidence, muddled thoughts based on hallucinations or delusions, changes in behaviour
- Bipolar - Bipolar disorder, formerly known as manic depression, is a condition that affects your moods, which can swing from one extreme to another. If you have bipolar disorder, you will have periods or episodes of: depression – where you feel very low and lethargic, mania – where you feel very high and overactive (less severe mania is known as hypomania). Symptoms of bipolar disorder depend on which mood you are experiencing. Unlike simple mood swings, each extreme episode of bipolar disorder can last for several weeks (or even longer), and some people may not experience a "normal" mood very often
- Anorexia: A person who is anorexic has a distorted body image. They see themselves as being fat, even though, in reality, they are often extremely underweight. Eating can cause them to feel guilty and angry with themselves. Often people with anorexia will exercise excessively in order to burn off the calories of any food they consume.
- Bulimia: As with anorexia, people who develop bulimia use eating and weight control as a way of coping with their problems. Often they have low self-esteem and binge on food as a way of filling an emotional need. Unlike anorexia, people with bulimia often maintain a normal body weight. This can make it more difficult to determine whether someone has bulimia.

### Mental health worries/questions/concerns?

#### Kooth (<https://www.kooth.com/>)

Kooth is an online counselling and emotional well-being platform for children and young people, accessible through mobile, tablet and desktop and free at the point of use. Chat to counsellors, Read articles written by young people, get support from the Kooth community, Write in a daily journal

#### MindShift (free to use)

Struggling with anxiety? Tired of missing out? There are things you can do to stop anxiety and fear from controlling your life. MindShift is an app designed to help teens and young adults cope with anxiety. It can help you change how you think about anxiety. Rather than trying to avoid anxiety, you can make an important shift and face it.

#### Off The Record: Bristol (<https://www.otrbristol.org.uk/>)

OTR isn't just a charity providing mental health services, it's a mental health movement mobilised to support, promote and defend the mental health, rights and social position of young people! We offer counselling in Central Bristol, and Yate. We also offer a whole range of other services, including but not limited to projects and social action, nature works, and inspiration works which covers our creative side of the service. Examples of these are, Book club, Mindfulness, and Bristol meet ups, as well as our allotment.

#### TESS – Text and Email Support Service

Run by Self Injury Support, TESS is a text and email service for women and girls in the UK affected by self-harm. The text service is available on Tuesdays, Wednesdays and Thursdays from 19:00-21:30. Text: 07537 432 444

#### YoungMinds (<https://youngminds.org.uk/>)

YoungMinds is a national charity committed to improving the emotional wellbeing and mental health of all children and young people under the age of 25. They offer advice, training, campaigning and various publications. They also have lots of information for parents who may be worried about a child or young person's behaviour or mental health, a Parents Helpline for parents worried about their children, and a text service (YoungMinds Crisis Messenger) for young people who are experiencing a mental health crisis.

Samaritans (116 123) - Emotional support for anyone feeling down, experiencing distress or struggling to cope. If you live in Wales, Samaritans Cymru run a Welsh language line (0808 164 0123).

Childline (0800 11 11) – Run a free 24-hour helpline, email service and online and phone counselling service for children and young people in the UK. They can also provide Welsh speaking counsellors.

HopeLineUK (0800 068 4141, or text 07786 209697) - Advisors trained to help you focus on staying safe from suicide. They can provide advice and support that may help you to stay safe.

The Mix (0800 808 4994) – Offer a helpline, email, live chat, telephone counselling service and crisis text line for anyone under 25 years old wanting support.

**Btec Sport Activity and Fitness- Term 2.1 and 2.2.**

	<b>Purpose</b>	<b>Example</b>
<b>Macronutrient</b>	<p>Proteins (12-15% of intake)</p> <p><b>Tissue growth</b> – known as the body's building blocks (Amino Acids). There are 22 amino acids- 8 of these are <b>essential amino acids</b>- have to be supplied from food as the body cant make them. Remaining 14 amino acids- <b>Non essential amino acids</b> can be made by the body. Athletes frequently use protein supplements in their diet and will consume protein immediately after training, sometimes as a 'shake'.</p>	<p>Animal products – meat, fish, dairy; plants – lentils, nuts, seeds; protein supplements and shakes.</p>
<b>Macronutrient</b>	<p>Carbohydrates (50-60% of intake)</p> <p><b>Source of energy.</b> Stored in the bidy as glycogen but is broken down into glucose for energy. Divided into: <b>simple carbohydrates</b> – sugars- Which break down quickly providing a burst of energy. Consume if you are feeling tired before, during or after exercise. <b>Complex carbohydrates</b> – starches. Break down slowly, releasing energy over a longer period of time. Athletes need to consume larger quantities of carbohydrates to fuel their training and performance. Prior to an endurance event such as a triathlon, athletes might 'carbo-load' to ensure they have enough to finish the race.</p>	<p>Simple – sugar, glucose, fructose; energy gels; complex – bread, pasta, rice, potatoes.</p>
<b>Macronutrient</b>	<p>Fats (30% of intake)</p> <p><b>Source of energy.</b></p> <p><u>Saturated fats</u>- solid at room temperature. Too much increases cholesterol in your blood, incerasing risk of CHD. Should be limited.</p> <p><u>Unsaturated fats</u>- Liquid at room temperature. They are healthier for you're a play a role in reducing the risk of coronary heart disdease. The bostdies secind source of energy after carbohydrates but take a long time to covert to energy.</p> <p>Fats are stored under the skin and are essential for health. Too much fat can limit an athlete's performance due to increased weight.</p>	<p>Monounsaturated – olive oil, avocados; polyunsaturated – oily fish, nuts, sunflower oil, soya beans; saturated – full-fat dairy, fatty meats; and trans fats – many snack foods.</p>
<b>Micronutrient</b>	<p>Minerals</p> <p>Essential for many processes, eg <b>bone growth/strength, nervous system, red blood cells, immune system.</b> Need small amounts only.</p>	<p>Calcium – milk, canned fish, broccoli; Iron – watercress, brown rice, meat; zinc – shellfish, cheese, wheatgerm; Potassium – fruit, pulses, white meat.</p>
<b>Mirconutirent</b>	<p>Vitamins</p> <p>Essential for many processes, eg <b>bone growth, metabolic rate, immune system, vision, nervous system.</b> Need small amounts only.</p>	<p>A – dairy, oily fish, yellow fruit; B – vegetables, wholegrain cereals; C – citrus fruit, broccoli, sprouts; D – oily fish, eggs, cereals.</p>

### **Hydration.- Recommended daily intake (RDI) is 2 litres per day.**

When you are hydrated you have enough water in your body for it to function properly. You become dehydrated when your body does not contain enough water for it to function efficiently. Signs include- thirst, dizziness, headaches, dry mouth, poor concentration, rapid heart rate.

Water helps to regulate body temperature through sweating and prevents overheating. Body temperature should stay between 36.1-37.8 degree C. Vasodilation is one way to get rid of excess heat. Sweating will reduce body temperature by releasing heat. Dehydration reduces your body's ability to sweat and makes you overheat.

Water keeps blood thin so that it flows around the body easily- Blood cells are carried in plasma, which is mainly water. When blood doesn't contain a lot of plasma it is thick and sticky (viscous). When you are dehydrated the blood becomes viscous, doesn't flow well and means oxygen doesn't get to the muscles as quickly.

Water keeps the joints lubricated- key component of synovial fluid, a clear substance produced in joints to enable them to move smoothly through their full range of movement.

### **Before training and Competition.**

When preparing for intense aerobic exercise, performers must load their bodies with energy-providing foods containing carbohydrates to maximize their stores of glycogen. Known as Carbohydrate loading.

Immediately before competition they might also eat something that is easy to digest and contains simple carbohydrates, such as toast and honey to maximize glucose.

It is easier to perform on an empty bowel, so going to the toilet prior to exercise is advised. Fiber is also important for a healthy bowel function

### **During Training and Competition**

Sports performers should ensure they drink plenty of fluids, in the form of water or a sports drink, if they are working at a high intensity, for a long periods of time or in hot conditions. If the activity is lengthy they may also need a snack that is easy to digest such as a banana.

### **After Training or Competition.**

Sports drinks are popular immediately after training, like water but contain electrolytes to replace the ones lost through sweat. Water also helps to replace fluids lost through exercise.

Within 1-2 hours of training or competing, a meal with complex carbohydrates to replenish the body's stores of glycogen, protein to aid repair of muscles and promote muscle growth. Some athletes take protein shakes to aid muscle growth and repair.

## Legal Training Supplements

**Vitamin D-** Crucial for healthy bones, so by taking Vitamin D tables your bones will becomes stronger and healthier. Benefit for athletes in high impact sports.

**Protein Supplements-** Usually a powder that you mix with water or milk to forma protein shake. Often drunk for strength or power training sessions. Most provide all 8 essential amino acids. Protein is essential for repair so can help a performer train harder for longer with less recovery time.

**The B Vitamins** are a group of vitamins that occur together in foods. Vitamin B1 breaks down the carbohydrates we eat into energy, so a lack of B1 may reduce performance. Supplements can be taken.

**Pre-workout supplements-** Give you a boost of energy before exercise. Someone taking part in aerobic exercise should take a different supplement than someone who is taking part in strength or power session.

**Isotonic Drinks-** Containing glucose replenish electrolytes lost through sweat and help to rehydrate. They also provide a burst of energy to enable performers to work at a higher intensity or to recover from exercise.

**Caffeine-** Can improve alertness and concentration. Studies have shown it can improve aerobic endurance and power.

### Carbohydrate Loading

**Carbohydrates provide energy.** The complex carbohydrates – starches – are **stored in the body as glycogen and converted into glucose when the body needs more energy.** Glycogen is a slow-release form of energy. This is particularly **useful to endurance athletes** in the last stages of a performance. So, for example, in the **week leading up to a race, marathon runners may eat lots of starchy foods, such as pasta.** This helps them to keep going towards the end of the race.

### High-protein diets

**Protein builds tissue,** including muscle. Athletes who want to build up their muscle **during strength-training** sometimes eat high-protein diets. This includes obvious strength-training athletes, such as **weightlifters, but also includes endurance athletes who want t repair or prevent torn muscle.** The value of high-protein diets is debatable. Athletes do not need much more protein than other people, protein is difficult to digest and it does not automatically turn into muscle – the athlete still needs to do strength-training, which is fuelled by carbohydrates.

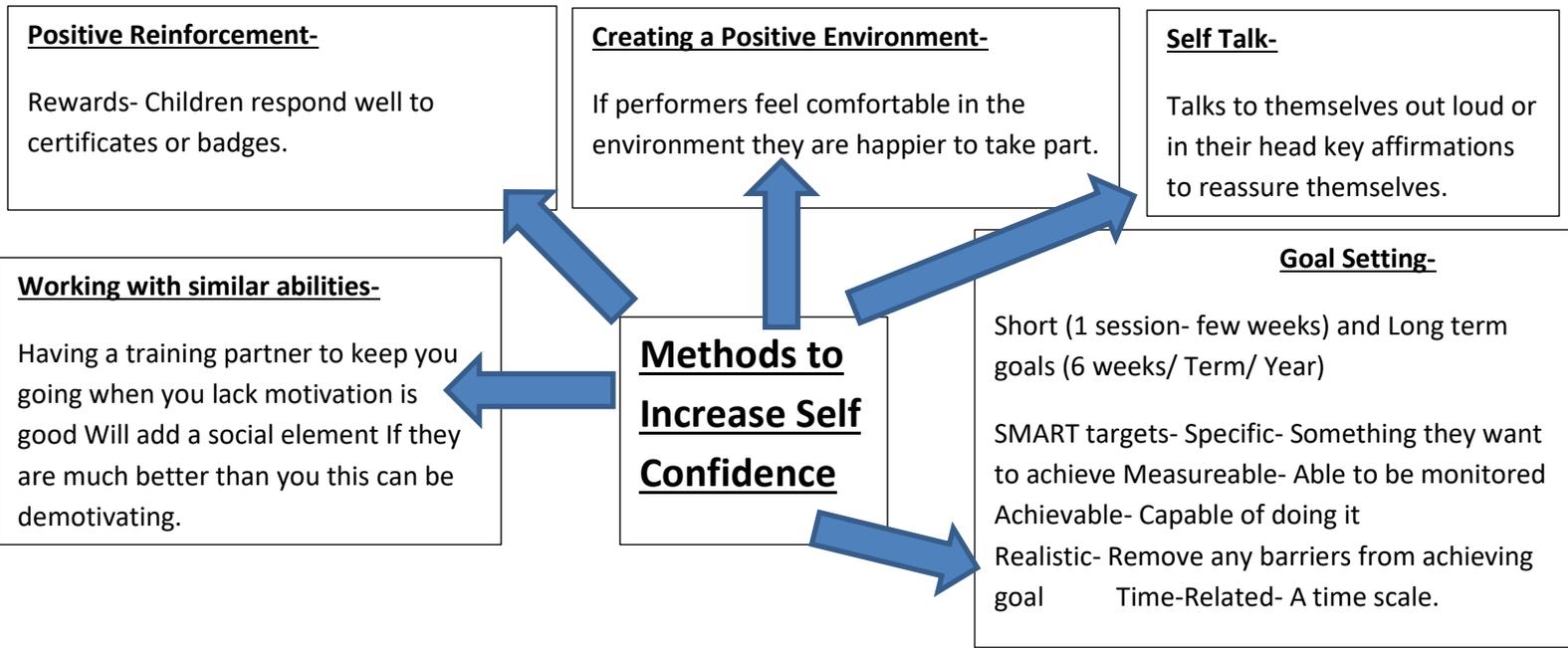
# Sport Psychology- Term 2.2

**Motivation-** The drive for a person to be successful

**Intrinsic-** From within- Taking part in sport for the enjoyment, because it makes them happy.

**Extrinsic-** A form of reward is given- Tangible- Something that has a physical presence- Money/ Trophies  
Intangible- something that doesn't cost anything but provides recognition- Name in the local paper/  
Team Captain.

<b>The impact of motivation on participation- Benefits</b>	<b>The impact of Self Confidence on Participation</b>
Intensity of effort during participation is higher- more likely to push themselves.	Increased intrinsic motivation- higher levels of self confidence increase your motivation to take part.
Continue to take part on a regular basis-	Positive attitude to fitness, sport and activity- Increase the belief that they can reach their goals.
Overcoming adversity- Injured for a long time, Not achieving a fitness goal in planned time. Things that could affect motivation- bad school report, falling out with friends, family issues.	Improved performance- They believe that they can perform the skills, make the time. More confidence means that they will commit to a tackle in football therefore more likely for it to be successful.
Higher Enjoyment Levels-	Improved concentration and effort- Less likely to have doubts about their performance.
Increased Intrinsic and extrinsic rewards.	



**Effects of Anxiety on Participation**

**Somatic Anxiety-** The feelings brought on by state or trait anxiety- Butterflies in stomach, Muscle tension, Increased heart rate/ sweat rate.

**Cognitive Anxiety-** Psychological effects brought on by state or trait anxiety- Feeling worried, poor concentration levels, lack of sleep due to over thinking.

**Anxiety-**

**State Anxiety-** The situation the person is in. Temporary anxiety only in this environment

**Trait Anxiety-** Some people are more anxious than others- related to their personality.

**Impact of Anxiety- Controlling it**

**Fitness Induction-** Know where to go and what to do.

**Use of Music-** Motivate or Calm

**Activity based on Ability Levels-**  
Beginner classes

**Pre-Match Team Talk-** Builds confidence, reduces anxiety.

## AQA Religious Studies A – Theme D: Religion, Peace and Conflict

Key Words			
Forgiveness	Pardoning someone for wrongdoing	Peace-making	Working toward bringing about an end to war and a state of peace
Greed	Going to war to gain land or natural resources such as oil	Protest	A public expression of disapproval, often in a big group, can be peaceful or violent
Holy War	A war that is fought for religious reasons, usually backed by a religious leader	Quakers	A Christians denomination who worship in silence and are well known pacifists
Just War	A Christian theory that asks whether a war is fought justly	Reconciliation	Restoring friendly relationships after a war or conflict
Justice	Bringing about what is right and fair, according to the law or God’s will	Retaliation	Deliberately harming someone as a response to them harming you
Nuclear Weapon	A weapon using a nuclear reaction to cause massive damage	Self-Defence	Protecting yourself or others from harm
Pacifism	A belief that all forms of violence are wrong, commonly held by Quakers	Terrorism	Using violence in order to further a political or religious message
Peace	A state of happiness and harmony, an absence of war	WMD	Weapons of mass destruction: chemical, nuclear or biological weapons

Key Ideas			
<b>Protests and Terrorism</b> 	<p style="text-align: center;"><u>Protests</u></p> <p>The right to gather together and protest is a fundamental democratic <b>freedom</b>. UK law allows for peaceful public protest but sometimes protests can turn violent and become a <b>riot</b>. Christians often <b>protest unjust laws</b> or for other forms of justice but would rarely advocate the use of violence in protest.</p>		<p style="text-align: center;"><u>Terrorism</u></p> <p>Examples of terrorism include suicide bombing, mass shootings or using vehicles to injure pedestrians. The aim of terrorism is to make society aware of a cause or issue and to make people frightened to go about their business. Christians don’t promote political violence + believe terrorism is wrong as it targets innocent people</p>
<b>Reasons for War</b> 	<p><u>Greed</u></p> <p>To gain more <b>land</b> or to control important <b>resources</b> such as oil or gas. e.g. The UK and US invading <b>Iraq</b> in order to control oil resources</p>	<p><u>Self-Defence</u></p> <p>To <b>defend</b> one’s country against invasion or attack or to protect allies who are under attack e.g. UK threatened by Nazi invasion in <b>WWII</b></p>	<p><u>Retaliation</u></p> <p>To fight against a country that has done something very wrong or to fight against a country that has attacked you e.g. US invading <b>Afghanistan</b> in retaliation for 9/11</p>
<b>Nuclear War and WMD</b> 	<p>Nuclear weapons work by a nuclear reaction and devastate huge areas and kill large numbers of people. They are a type of WMD (<b>weapons of mass destruction</b>) which also includes <b>chemical</b> and <b>biological</b> weapons. All these weapons are not allowed under the Christian Just War Theory and would therefore be rejected by most Christians. Nuclear weapons were used at the end of WWII in <b>Japan</b> to force the Japanese to surrender. Some people say their use was justified as it prevented more suffering even though 140,000 people died. Although some Christians justify war with ‘an eye for an eye’, this cannot be used to justify the use of weapons of mass destruction as they are not a <b>proportionate</b> response.</p>		
<b>Holy War</b> 	<p>A <b>Holy War</b> is a war which is fought for religious reasons, often with the backing of religious leaders. An example of this was the <b>Crusades</b> fought from the 11<sup>th</sup>-14<sup>th</sup> Century by Christians, backed by the Pope. Religion can still be a cause for war today such as in <b>Northern Ireland</b> where Protestant and Catholic Christians fought a civil war between 1968-98.</p>		
<b>Just War Theory</b> 	<p>Just War Theory is a Christian moral theory for working out if a war meets internationally accepted criteria for fairness. These are some of the conditions that must be met in order for a war to be just:</p> <ul style="list-style-type: none"> <li>• Just Cause – fought in self-defence or to protect others</li> <li>• Just Intention – fought to promote good and defeat wrongdoing</li> <li>• Last Resort – only going to war if all other methods have been tried first</li> <li>• Proportional – excessive force should not be used and innocent civilians must not be killed</li> </ul>		
<b>Pacifism and Christian Responses to War</b> 	<p><b>Pacifism</b> is the idea that <b>all forms of violence are wrong</b>. Pacifists such as Quakers refuse to take part in war and often choose to be a <b>conscientious objector</b> (someone who doesn’t go to war for moral reasons) or to assist in medical tasks like ambulance driving. Christians try to follow Jesus’ teaching that “blessed are the peacemakers”</p>		<p>Christians try to show <b>mercy</b> and <b>agape</b> to victims of war and provide them with assistance. This can be through charity or through welcoming them into their churches. It can be victims in their own country or <b>refugees</b> such as people fleeing from Syria or Yemen. This is an example of ‘love your neighbour’ in action.</p>

1	Yo no puedo vivir sin mi móvil porque <b>lo uso</b> por todo.	1	Me, I can't live without my mobile phone because <b>I use it</b> for everything.
2	<b>Se puede sacar fotos, revisar</b> tu correo electrónico y <b>hacer</b> compras.	2	<b>You can take</b> photos, <b>check</b> your emails and <b>do</b> shopping.
3	La música es mi pasión, <b>así que</b> uso mi teléfono para descargar	3	Music is my passion, <b>therefore</b> I use my mobile phone <b>to download</b>
4	música. <b>Me gusta escuchar</b> música <b>mientras yo limpio</b> mi dormitorio o	4	music. <b>I like listening</b> to music <b>whilst tidying</b> my room or <b>doing</b> my homework.
5	<b>hago</b> mis deberes. Mando mensajes a mis amigos <b>para mantenerme</b> en contacto <b>con</b>	5	I send texts to my friends <b>to stay</b> in touch <b>with them</b> and I call my parents <b>from time</b>
6	<b>ellos</b> y llamo a mis padres de vez en cuando <b>si voy a volver</b> tarde.	6	<b>to time if I am going to be home</b> late.
7	Pienso que la red es <b>muy</b> práctica. Por ejemplo, se <b>puede usarla para hacer</b>	7	I think that the internet is <b>very</b> practical. For example, <b>you can use it to do</b>
8	compras en línea. <b>Me encanta hacer</b> compras en línea porque es <b>menos caro</b> y se	8	shopping online. <b>I love doing shopping</b> on line because it's <b>less expensive</b> and
9	<b>puede comprar</b> cosas <b>incluso si</b> las tiendas están cerradas.	9	<b>you can buy</b> things <b>even if</b> the shops are shut.
10	<b>Ayer, me quedé</b> en casa y <b>quería ver</b> una película así que <b>descargué</b> una película	10	<b>Yesterday I stayed</b> at home and <b>I wanted to watch</b> a film, therefore <b>I downloaded</b> a
11	de horror y <b>lo miré</b> en mi tableta. <b>Después de ver</b> la película, <b>leí</b> blogs	11	horror film and <b>I watched it</b> on my tablet. <b>After having watched</b> the film, <b>I read</b> my
12	de mis amigos y <b>publiqué</b> fotos en las redes sociales.	12	friends' blogs and <b>I posted</b> photos on social networks
13	<b>Por otro lado,</b> la red tiene muchas ventajas y en mi opinión es útil porque se puede	13	<b>On the other hand,</b> the internet has lots of advantages and in my opinion it's useful because you can
14	hacer lo que quiere en un solo clic. <b>Sin embargo,</b> en la red, hay muchos desconocidos	14	do what you want in just one click. <b>However,</b> on the internet there are many strangers
15	<b>con quien se puede hablar</b> y <b>podría ser muy</b> peligroso, <b>especialmente</b> para los jóvenes.	15	<b>to whom you can talk</b> and <b>that could be very</b> dangerous, <b>especially</b> for young people.

Model answer – La tecnología.

SPANISH

### Key verbs

acceder to access  
acosar to bully  
adjuntar to attach  
apasionar to excite  
bailar to dance  
borrar to erase, delete  
cantar to sing  
cargar load  
chatear to chat online  
colgar to put/post (photos on social media)  
comunicarse to communicate  
compartir to share  
crear to create  
desactivar to block (screen)  
descargar to download  
divertirse to have a good time  
enviar to send  
escoger to choose  
escribir to write  
funcionar to work, to function  
grabar to record, to burn a disk  
guardar to save  
hablar to speak, talk  
leer to read  
mandar to send  
navegar to surf, go on (the internet)  
publicar to publish  
recibir to receive  
sacar fotos to take photos  
terminar to finish  
tocar to touch, to play (an instrument)  
usar to use  
utilizar to use  
ver to watch

### Year 9 SPANISH

### TERMS 2.1 & 2.2

### La tecnología & los medios de comunicación

### Key nouns

el acoso bullying  
el archivo file  
arroba @  
el buscador search engine  
el buzón mail box  
la contraseña password  
el correo basura spam  
el correo electrónico email  
el disco duro hard drive  
el guion hyphen  
el guion bajo underscore  
la herramienta tool  
la internauta Internet user  
el marcador bookmark  
el mensaje (de texto) text (message)  
el móvil mobile/smart phone  
el navegador browser  
el ordenador computer  
la pantalla screen  
el periódico (digital) (digital) newspaper  
la portada homepage  
el portátil laptop  
punto full stop, dot  
el ratón mouse  
la revista (digital) (digital/ e-) magazine  
el servidor de seguridad firewall  
la tablet tablet  
el teclado keyboard  
el usuario user  
el videojuego videogame

### Social networks

la conexión (inalámbrica) (wireless) connection  
la desventaja disadvantage  
gratis free of charge  
inalámbrico wireless  
el inconveniente drawback, disadvantage  
interactivo/a interactive  
los medios sociales social media  
la red network, internet  
la red social social network  
el riesgo risk  
la sala de chat chat room  
el/la seguidor/a follower  
la tarjeta de crédito credit card  
la ventaja advantage

### Media

la actriz actress  
el aficionado fan/enthusiast  
la batería drums  
la canción song  
el/la cantante singer  
la ciencia ficción science fiction  
el cine cinema  
los dibujos animados cartoons el documental documentary  
en directo live  
la entrada ticket  
la función show, performance  
las noticias news  
La película film  
la revista magazine  
la tequilla box office  
las telenovelas soaps

### Time markers

generalmente usually  
hoy today  
normalmente normally  
anoche last night  
ayer yesterday  
el fin de semana pasado last weekend  
el mes pasado last month  
el año que viene next year  
el mes próximo next month  
mañana tomorrow  
la semana que viene next week

### Expressing opinions

A mi juicio In my opinion  
A mi ver In my view  
Desde mi punto de vista From my point of view  
En mi opinión In my opinion  
Para mí For me  
Personalmente Personally  
Pienso que I think that  
Por mi parte As far as I'm concerned  
Me parece It seems to me

### Adjectives

aburrido boring  
agradable pleasant  
divertido fun  
emocionante exciting  
entretenido entertaining  
estimulante challenging  
genial great  
relajante relaxing  
tonto silly, stupid

Present tense verbs			
	-ar	-er	-ir
yo	+o	+o	+o
tú	+as	+es	+es
él/ella	+a	+e	+e
nosotros	+amos	+emos	+imos
vosotros	+áis	+éis	+ís
ellos/Ellas	+an	+en	+en

**Disjunctive/ Emphatic Pronouns**  
 These pronouns are used: after a preposition; for emphasis or on their own without a verb.

mí- me            nosotros – us  
 tí – you            vosotros - you  
 él – him            ellos – them  
 ella – her            ellas – them

Usted – you (formal singular)  
 Ustedes you (formal plural)

Charlo con ella. I chat with her.

**Intensifiers and conjunctions**

bastante quite	así que so
demasiado too	cuándo when
muy very	porque because
siempre always	puesto que because, as
tan so	sin embargo however
un poco a bit	ya que so

**Articles**

Remember!  
 un/ una = a  
 unos/unas = some

el/ la/ l' = the  
 los/la = the

Preterite tense verbs (the past)			
	-ar	-er	-ir
yo	+é	+í	+í
tú	+aste	+iste	+iste
él/ella	+ó	+ió	+ió
nosotros	+amos	+imos	+imos
vosotros	+asteis	+isteis	+isteis
ellos/Ellas	+aron	+ieron	+ieron

**Direct Object Pronouns**  
 The words **lo, la** mean 'the' when they are in front of a noun, but when they come **before** a verb they change meaning

lo = it, him
la = it, her
los/las= them

**Los** encuentro utiles – I find **them** useful.  
**Lo** uso para sacar fotos – I use **it** to take photos.

Infinitive phrases	
Voy a I am going...	escribir un blog to write a blog hacer compras to do shopping sacar fotos take photos
Vamos a... We are going...	
Quisiera... I would like..	
Me gustaría...I would like...	
Me gusta/ Me encanta... I like/love...	
No me gusta/ Odio... I don't like/hate	
Puedo... I can...	
Se puede... you can...	
Quiero I want	

Voy a descargar música I'm going to download music  
 Puedo mantenerme en contacto con...I can be stay in touch with...  
 Se puede leer blogs. You can read blogs

**Yr 9 SPANISH TERMS 3 & 4**  
**Grammar and structures**