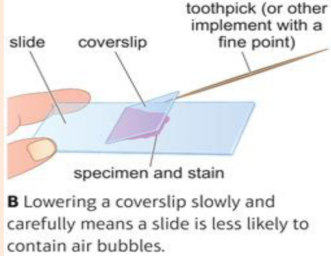
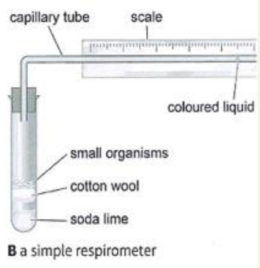


## YEAR 11 CYCLE 2 BIOLOGY

Year 11 Separate Biology Cycle Two	Week One	Week Two
<b>Key Vocabulary</b> <ol style="list-style-type: none"> <li><b>Aerobic respiration:</b> chemical reaction releasing energy using oxygen</li> <li><b>Alveoli:</b> air sacs found in the lungs. The site of gaseous exchange</li> <li><b>Anaerobic respiration:</b> chemical reaction releasing a small amount of energy without oxygen present</li> <li><b>Arteries:</b> blood vessels which carry oxygenated blood around body</li> <li><b>Biomass:</b> the dried living mass of an organism</li> <li><b>Capillaries:</b> small blood vessels that reach cells</li> <li><b>Decomposers:</b> micro-organisms responsible for decay</li> <li><b>Erythrocytes:</b> red blood cells, these carry oxygen</li> <li><b>Lactic acid:</b> the product of anaerobic respiration</li> <li><b>Lymphocytes:</b> a type of white blood cell which releases antibodies to neutralise pathogens</li> <li><b>Phagocytes:</b> a type of white blood cell which engulfs pathogens to detect its type</li> <li><b>Plasma:</b> watery content of blood which carries dissolved glucose, urea and mineral ions</li> <li><b>Platelets:</b> cell fragments found in blood which are responsible for clotting</li> <li><b>Respirometer:</b> used to measure the rate of respiration</li> <li><b>Trophic level:</b> a level in a food chain</li> <li><b>Urea:</b> toxic waste product from amino acids, excrete in urine</li> <li><b>Veins:</b> blood vessels which carry deoxygenated blood around the body</li> </ol>	<ol style="list-style-type: none"> <li>All <b>animal</b> cells have the same basic parts: <b>nucleus, cytoplasm, cell surface membrane, mitochondria and ribosomes.</b></li> <li><b>Ribosomes</b> are where protein synthesis takes place. <b>Mitochondria</b> where <b>aerobic respiration</b> occurs.</li> <li>Cells from different <b>tissues</b> have different shapes, sizes and functions to help them do their jobs. The cells are <b>specialised.</b></li> <li><b>Plant</b> cells have thick <b>cell walls (made of cellulose)</b> and may have some other features not found in animal cells: <b>chloroplasts</b> and a <b>permanent vacuole.</b></li> <li>Animal and plant cells have a nucleus and are described as <b>eukaryotic</b> organisms. Bacteria cells do not have a nucleus and are described as <b>prokaryotic</b> organisms.</li> </ol>	<ol style="list-style-type: none"> <li>There are two types of microscopes, light and electron microscopes. Electron microscopes have a greater magnification and <b>resolution</b> which has increased our understanding of sub-cellular organelles.</li> </ol> <p><b>Magnification = Image size ÷ Actual size</b></p> <p><b>To focus:</b></p> <ol style="list-style-type: none"> <li>Use the smallest objective lens.</li> <li>Place the slide on the stage</li> <li>Turn the focusing wheel slowly to obtain a clear image.</li> </ol> 
	<b>Week Three</b> <ol style="list-style-type: none"> <li>There are a range of substances that need to be transported in and out of body organs: <ol style="list-style-type: none"> <li><b>Oxygen:</b> from alveoli (in lungs) to blood</li> <li><b>Carbon dioxide:</b> from blood to alveoli</li> <li><b>Food molecules:</b> from small intestines to blood</li> <li><b>Urea:</b> from cells to blood and into kidney</li> </ol> </li> <li>These substances <b>diffuse</b> across surface membranes. We can calculate <b>SA:V</b> by: <p style="text-align: center;"><b>Surface area:÷volume</b></p> </li> <li><b>The alveoli</b> in the lungs are adapted for gaseous exchange in the following ways: <ol style="list-style-type: none"> <li><b>Large capillary network</b> to increase exchange rate</li> <li><b>One cell thick</b> to speed up diffusion</li> <li><b>They have a large surface area</b></li> </ol> </li> </ol>	<b>Week Four</b> <ol style="list-style-type: none"> <li>There are 4 main components of blood: <b>erythrocytes</b> (red blood cells), <b>white blood cells</b> (phagocytes and lymphocytes, <b>plasma and platelets.</b></li> <li>The blood vessels have several adaptations: <p><b>Veins:</b> carry deoxygenated blood to heart.</p> <ol style="list-style-type: none"> <li>These have a large lumen (internal hole)</li> <li>Have valves to keep blood moving in one direction back to heart.</li> </ol> </li> <li><b>Arteries:</b> carry oxygenated blood away from heart. These have: <ol style="list-style-type: none"> <li>Thick layers of muscle to withstand the high pressure generated by left ventricle</li> <li>Elastic tissue</li> </ol> </li> <li><b>Capillaries:</b> site of exchange between blood and body tissues: one cell thick to enable rapid diffusion to occur.</li> </ol>

## YEAR 11 CYCLE 2 BIOLOGY

Week Five	Week Six	Week Seven
<ol style="list-style-type: none"> <li>The <b>circulatory system</b> is made up of the <b>heart, blood vessels and blood.</b></li> <li>Humans have a <b>double circulatory system</b> – two circuits joined together</li> <li>The walls of the heart are mostly made of <b>muscle tissue.</b></li> <li>The heart has <b>valves</b> to prevent blood flowing backwards.</li> <li>The heart has <b>4 chambers.</b></li> <li>Deoxygenated blood flows in to the <b>right atrium</b> and then into the <b>right ventricle</b>, where it is pumped to the lungs to take in oxygen.</li> <li>The <b>pulmonary vein</b> carries oxygenated blood from the lungs to the <b>left atrium</b>, into the <b>left ventricle</b>, where it is pumped to the other organs of the body. The oxygen carried by the blood then <b>diffuses</b> into cells.</li> </ol>	<ol style="list-style-type: none"> <li><b>Respiration</b> is the chemical reaction which takes place in the cells. Its purpose is to <b>release energy.</b> It is an <b>exothermic reaction.</b></li> <li><b>Aerobic respiration:</b> <ol style="list-style-type: none"> <li>Takes place in the <b>mitochondria</b> of cells</li> <li>Releases a <b>large amount of energy</b></li> <li>Reaction uses oxygen</li> </ol> </li> <li><b>Glucose + oxygen → carbon dioxide + water</b></li> <li><b>Anaerobic respiration:</b> <ol style="list-style-type: none"> <li>Takes place in the <b>cytoplasm</b> of cells</li> <li>No oxygen is present</li> <li>Less energy is released</li> <li>A by-product called <b>lactic acid</b> is formed</li> </ol> </li> <li><b>Glucose → lactic acid</b></li> <li><b>Lactic acid</b> causes muscle fatigue.</li> </ol>	<p><b>Effects of exercise on the body:</b></p> <ol style="list-style-type: none"> <li>As the muscles contract and relax, there is an increased demand for energy.</li> <li>The body tries to meet this demand by: <ol style="list-style-type: none"> <li><b>Increasing the heart rate</b> so that oxygenated blood is pumped around the body faster</li> <li><b>Increasing the breathing rate</b> so that the exchange of oxygen and carbon dioxide between the air and body happens faster</li> <li><b>Vasodilation</b> of blood vessels leading to and from muscles</li> <li><b>Vasoconstriction</b> of blood vessels to organs not required in exercise, e.g. stomach</li> </ol> </li> <li>If <b>insufficient oxygen</b> is supplied to the muscle cells then <b>anaerobic respiration</b> occurs.</li> </ol>
Week Eight	Week Nine	Week Ten
<ol style="list-style-type: none"> <li><b>Respiration core practical:</b> to investigate the rate of respiration in living organisms.</li> <li>A <b>respirometer</b> is used to measure the uptake of oxygen by an organism.</li> <li>A <b>water bath</b> is used to bring the organisms to a set temperature.</li> <li><b>Cotton wool</b> is placed in between the organisms and soda lime as the soda lime is <b>corrosive.</b></li> <li><b>Soda lime</b> is used to absorb carbon dioxide so this does not affect the position of the liquid.</li> </ol> 	<ol style="list-style-type: none"> <li>Inherited characteristics can be <b>dominant</b> or <b>recessive.</b></li> <li><b>Alleles:</b> different <b>forms</b> of the <b>same gene.</b></li> <li><b>Dominant: allele</b> will always have an effect.</li> <li><b>Recessive:</b> an <b>allele</b> that will only have an effect if the <b>other allele</b> is <b>also recessive.</b></li> <li><b>Punnett squares</b> can be used to determine the <b>probability of inheriting certain characteristics.</b></li> <li><b>Male sex chromosomes: XY.</b></li> <li><b>Female sex chromosomes: XX.</b></li> <li><b>Genotype:</b> the alleles present in an organism.</li> <li><b>Heterozygous:</b> when the <b>alleles</b> for a gene are <b>different</b> in an organism (e.g. Rr).</li> <li><b>Homozygous:</b> when the <b>alleles</b> for a gene are the <b>same</b> in an organism (e.g. RR, rr).</li> </ol>	<ol style="list-style-type: none"> <li><b>Digestive enzymes</b> break down: <ol style="list-style-type: none"> <li><b>Amylase:</b> starch into glucose.</li> <li><b>Lipase:</b> lipids (fats) into fatty acids &amp; glycerol.</li> <li><b>Protease:</b> protein into amino acids.</li> </ol> </li> <li>The rate an enzymes breaks down a substance can is calculated by: <math display="block">\text{Rate} = \frac{\text{amount of substance broken down (g)}}{\text{time taken (min)}} \text{ (g/min)}</math> </li> <li><b>Factors that affect rate of activity:</b> <ol style="list-style-type: none"> <li><b>Temperature:</b> as it increases the rate of reaction increases until it reaches <b>optimum</b> past this point the enzyme denatures</li> <li><b>pH:</b> past the <b>optimum</b> the enzyme will <b>denature.</b></li> <li><b>Substrate concentration:</b> as it increases the enzyme activity increases until all active sites contain substrate molecules.</li> </ol> </li> </ol>



# YEAR 11 CYCLE 2 BUSINESS

Knowledge Organiser

Unit 3: People

Exam paper help:



**Human resources:** are the people who do the work for a business. They are the employees.

**Human resource plan**

A plan detailing the workers a business will need i.e. how many, when, full time or part time and the skills they need.

**Functions**

Different types of work that need to be done in a business i.e. Marketing, production and finance.

**Week one 3:1 The Role of Human Resources**



**Human resource planning - things for a business to think about**

- The number of workers needed.
- The number of workers who will work full-time or part-time.
- The number who should be employed on zero-hour contracts.
- The number of workers to hire as contractors as and when needed.
- When workers will be needed - times of the day, days of the week.
- Where the workers will work - finance, production, marketing.
- The skills the workers will need to have.
- The need to manage and supervise some of the workers.
- The age, gender, ethnicity of the workers.
- How many staff members the business can afford to employ.

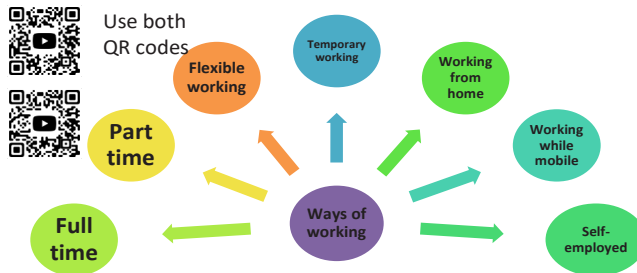
**When might a business need to review its human resource needs?**

- Workers may have to be replaced i.e. because they have left, retired or been promoted.
- The business may grow or shrink so may need more or fewer workers.
- The business may change its method of production so may need more or fewer skilled workers.
- The business may decide to relocate so may have to recruit workers who live nearby - they could still take their current workforce.
- The budget available for paying staff. If the budget is decreased they will need fewer staff and vice versa.
- Changes in the law may affect employment i.e. Minimum wage which will impact on the budget.

**Week 2 3:2 Organisational Structures**

There are two different types of organisation structure:

Advantages of a tall structure	Advantages of a flat structure
<ul style="list-style-type: none"> <li>• The span of control is likely to be narrower meaning that he does not have as many people to look after.</li> <li>• There will be plenty of opportunities for workers to gain promotion which will motivate them to work harder.</li> </ul>	<ul style="list-style-type: none"> <li>• Lines of communication are clear - communication will be quicker from top to bottom because there is not as many layers.</li> <li>• Fewer mistakes in communication will be made because there is fewer levels.</li> <li>• People at the bottom may be encouraged to share ideas.</li> <li>• Wider span of control means that managers can delegate work.</li> </ul>



**Organisation chart**

A diagram to show how workers are organised in a business.

**Authority**

The power that one person has to make decisions.

**Chain of command**

The order of authority from top to bottom.

**Span of control**

The number of people a manager is in charge of.

**Delegation**

Giving someone else permission to make a decision.

**Communication is:** the transmission of a message from a sender to a receiver.

**Written communication**

Communication by written words i.e. Text, email, letters.

**Verbal communication**

Communication by speaking i.e.. telephone or meetings.

**Formal communication**

Communication using the official channels within a business.

**Informal communication**

Communication outside the official channels within a business.

**3:3 Communication in Business**



	Pros	Cons
Verbal	<ul style="list-style-type: none"> <li>• Can check for understanding.</li> <li>• Can emphasise points through tone and body language.</li> <li>• Can use diagrams and pictures to help explain.</li> </ul>	<ul style="list-style-type: none"> <li>• If lots of people not all may understand.</li> <li>• Receiver may disrupt the message if they don't like it.</li> <li>• No permanent record of the message.</li> <li>• Some forms can be expensive.</li> </ul>
Written	<ul style="list-style-type: none"> <li>• There is a record of the message.</li> <li>• Receiver can re-read the message multiple times.</li> <li>• Can be sent to multiple people at the same time.</li> <li>• Can avoid confrontation.</li> </ul>	<ul style="list-style-type: none"> <li>• Can't check immediately if the message was understood.</li> <li>• The success depends on the clarity of the message.</li> <li>• Risk of computer viruses.</li> <li>• Emails could go to spam.</li> </ul>
Social media	<ul style="list-style-type: none"> <li>• Huge numbers of users.</li> <li>• Info can be updated regularly.</li> <li>• Visual images can help explain.</li> <li>• Can be cheaper to advertise.</li> <li>• Customers can be involved by allowing feedback.</li> </ul>	<ul style="list-style-type: none"> <li>• There is a cost in managing and updating the information.</li> <li>• Can be difficult to measure the effectiveness of the business' use of social media.</li> </ul>

**Week 4 3:4 Recruitment and Selection**

Businesses can recruit internally (from within the business i.e. promote an existing employee) or externally (someone from outside the business).



**Methods of advertising**

Businesses need to think about the costs of advertising for a job but can use the following:

- Websites
- Social media
- Local newspapers
- National newspapers
- Specialist magazines i.e. horse riding.
- Job centres
- Word of mouth

**Methods of selection**

Business can use a range of methods to select the best candidate:

- Letter of application
- Application form
- CV
- Interviews
- Tests and presentations
- Group activities
- References

**Selection**

The process of choosing between applicants for a job.

**Job description**

Lists the main duties, tasks and responsibilities of a worker.

**Person specification**

Lists the qualities, qualifications and knowledge that a person should have.

**Interviews**

Sessions where the people making the appointment ask questions of the applicants.

YEAR 11 CYCLE 2 BUSINESS

Knowledge Organiser

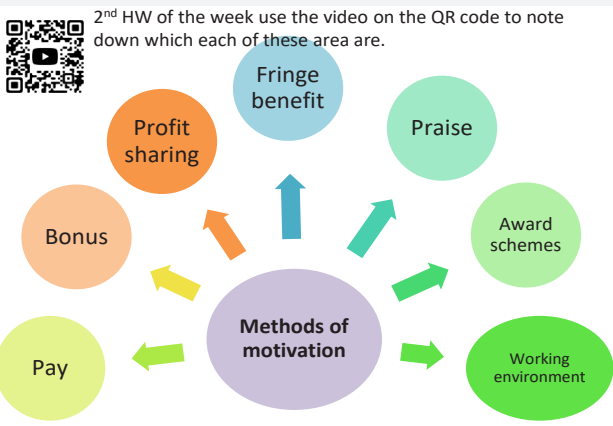
Unit 3: People

**Motivation is:**  
how workers are encouraged to work hard.

**Retention**  
*When workers choose to stay in a firm rather than move elsewhere.*  
**Productivity**  
*A measure of output per working.*  
**Financial motivation methods**  
*Methods that involve paying workers money.*  
**Non-financial motivation methods**  
*Methods that do not involve paying money.*

**Week 5 3:5 Motivation and Retention**

If employees are motivated then workers will be efficient in what they do, there will be a low turnover of workers, it will be easier to recruit new workers, less need for supervision and low absenteeism.



**Training is:**  
short term and is focused on helping a worker do his job well.

**Development**  
*Long term training focused on helping a worker realise their potential.*  
**On-the-job**  
*Training while working.*  
**Off-the-job**  
*Training away from the job.*  
**Induction training**  
*Training to introduce the worker to the business.*

**Week 6 3:6 Training and Development**

	Advantages	Disadvantages
Induction	<ul style="list-style-type: none"> <li>Helps workers to settle quickly - get to know colleagues.</li> <li>Worker will be more productive quicker.</li> <li>Health and safety issues reduced.</li> </ul>	<ul style="list-style-type: none"> <li>A lot of information to take in in one day.</li> <li>Costs involved - worker is paid but not producing anything.</li> <li>Costs involved - someone needs to provide the training.</li> </ul>
On-the-job	<ul style="list-style-type: none"> <li>Training is individualised to help each worker improve.</li> <li>Cheaper - no travel costs.</li> <li>Still producing products while training.</li> </ul>	<ul style="list-style-type: none"> <li>Trainer may need to stop working to help trainee.</li> <li>Quality might be poor.</li> <li>Quality of training depends on the trainer.</li> <li>No qualifications gained.</li> </ul>
Off-the-job	<ul style="list-style-type: none"> <li>Experts can provide training.</li> <li>Workers enjoy the change of environment.</li> <li>Workers feel valued.</li> </ul>	<ul style="list-style-type: none"> <li>More expensive - fees, travel etc.</li> <li>Worker is not producing products when training.</li> <li>Risk of employee leaving once trained.</li> </ul>

**Employment law is:**  
designed to protect workers from employers who may treat them unfairly.

**Discrimination**  
*When one worker is treated differently from another for no acceptable reason.*  
**Contract of employment**  
*A legal agreement between an employer and an employee.*  
**Holiday entitlement**  
*The amount of paid holiday a worker can have in one year.*

**Week 7 3:7 Employment Law**

The **Equality Act 2010** brought together 116 pieces of legislation into one single Act which is designed to protect the rights of workers.

<p><b>Discrimination</b></p> <ul style="list-style-type: none"> <li>Equal pay</li> <li>Race</li> <li>Sex</li> <li>Disability</li> <li>Sexual orientation</li> <li>Religion or belief</li> </ul> <p>All workers are entitled to have 5.6 weeks holiday each year paid.</p> <p>No. days worked per week x 5.6 = holiday entitlement.</p>	<p><b>Working Time Directive:</b></p> <p>Controls how many hours a worker can work each week. Over a 17-week period a worker cannot work more than 48 hours on average.</p> <p><u>Number of hours worked</u> 17 = average number of hours per week.</p> <p>Health and safety at work 1974 - hard hats/ trip hazards etc. Could be sued if not done.</p>
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**Week 8 Non Financial motivation**

	Advantages	Disadvantages
Praise	<ul style="list-style-type: none"> <li>Thanks in public or Privately email and cards or in meetings.</li> <li>Makes people feel valued or make people work harder to get that recognition.</li> <li>Free to give / good for all.</li> </ul>	<ul style="list-style-type: none"> <li>You can miss people out, if no money is attached you may feel under valued.</li> </ul>
Awards Scheme	<ul style="list-style-type: none"> <li>Given Voucher of time off or just a certificate</li> <li>Makes them feel valued and part of a team, people have noticed them.</li> </ul>	<ul style="list-style-type: none"> <li>Could be costly. People who miss out could become upset and less motivated.</li> </ul>
Working environment	<ul style="list-style-type: none"> <li>Making the work place and nice place to be in. they want to be in that space. Sending them on team building events and people kind and supportive.</li> </ul>	<ul style="list-style-type: none"> <li>Could be costly. The building could limit them and what they can do. May have to buy furniture, etc.</li> </ul>

**Possible questions**

- State one item contained in a job description.
- Explain two ways a business could motivate its employees.
- Analyse one method of training a business could use.
- Recommend one type of training a business could use for a new employee.
- Evaluate the most effective method of selection.

**State Explain Analyse Recommend Evaluate how >**



## YEAR 11 CYCLE 2 CHEMISTRY

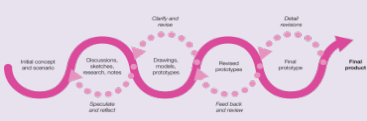
Year 11 Separate Chemistry Cycle Two	Week One	Week Two
<p><b>Key Vocabulary</b></p> <ol style="list-style-type: none"> <li><b>Addition reaction:</b> a reaction in which reactants combine to form one larger molecule and no other product</li> <li><b>Condensation polymerisation:</b> when monomers join together and eliminate a small molecule, such as water</li> <li><b>Finite resource:</b> something useful that is no longer made, or which is being made very slowly</li> <li><b>Functional group:</b> an atom or group of atoms in a molecule that is mainly responsible for the molecule's chemical reactions and properties</li> <li><b>Homologous series:</b> a family of compounds that have the same general formula and similar properties, but have different numbers of carbon atoms</li> <li><b>Monomer:</b> a small molecule that can join with other molecules like itself to form a polymer</li> <li><b>Organic compound:</b> a compound that has a central framework of carbon atoms onto which hydrogen and other atoms are attached</li> <li><b>Oxidising agent:</b> a substance that causes another substance to be oxidised in an oxidation reaction</li> <li><b>Polymer:</b> a long-chain molecule made of by joining many smaller molecules (monomers) together</li> <li><b>Saturated:</b> a molecule that contains only single bonds between the carbon atoms in the chain</li> <li><b>Synthetic polymer:</b> a polymer that is manufactured in a laboratory or a factory</li> <li><b>Unsaturated:</b> a molecule that contains one or more double bonds between carbon atoms in a chain</li> </ol>	<ol style="list-style-type: none"> <li><b>Crude oil is:</b> <ol style="list-style-type: none"> <li>a mixture of hydrocarbons</li> <li>a <b>finite</b> resource</li> <li>made up of <b>hydrogen</b> and <b>carbon atoms only</b></li> <li>an <b>arrangement</b> of <b>carbon</b> atoms in <b>chains</b> or <b>rings</b></li> </ol> </li> <li>Crude oil is a <b>non-renewable fuel</b>.</li> <li><b>Petrol, kerosene</b> and <b>diesel oil</b> are <b>fossil fuels</b> that are obtained from <b>crude oil</b>.</li> <li><b>Methane</b> is a <b>non-renewable</b> fossil fuel made from <b>natural gas</b>.</li> </ol>	<ol style="list-style-type: none"> <li><b>Fractional distillation:</b> the <b>separation</b> of crude oil into <b>simpler</b> more useful mixtures.           <div data-bbox="1477 372 2048 606"> <p>These are the names and uses of the main fractions leaving an oil fractionating column.</p> </div> </li> <li><b>Fractions</b> from fractional distillation are from the same <b>homologous series</b>:           <ol style="list-style-type: none"> <li>differ by an <b>increasing methyl (CH<sub>2</sub>)</b> group</li> <li>have <b>similar chemical</b> properties</li> <li>have a <b>gradual increase</b> in <b>boiling point</b></li> </ol> </li> </ol>
	<ol style="list-style-type: none"> <li><b>Complete combustion</b> of <b>hydrocarbons</b> occurs when <b>oxygen</b> is <b>present</b> and releases <b>carbon dioxide, water</b> and <b>energy</b>.</li> <li><b>Incomplete combustion</b> of <b>hydrocarbons</b> occurs when there is <b>not enough oxygen present</b> and can <b>produce carbon, carbon monoxide</b> and <b>water</b>.</li> <li><b>Sulfur dioxide</b> can be produced due to <b>impurities in fuels</b>.</li> <li><b>Acid rain</b> occurs when <b>sulfur dioxide</b> <b>dissolves</b> in <b>rain water</b>.</li> <li><b>Oxides</b> of <b>nitrogen</b> form when <b>oxygen</b> and <b>nitrogen</b> react in <b>engines</b>.</li> <li>A <b>high temperature</b> is needed for <b>oxygen</b> and <b>nitrogen to react</b>.</li> <li><b>Oxides</b> of <b>nitrogen</b> are <b>pollutants</b>.</li> </ol>	<ol style="list-style-type: none"> <li><b>Cracking</b> is a process of <b>breaking larger saturated</b> hydrocarbon chains down into <b>smaller</b> more useful ones.</li> <li>Cracking is needed to <b>meet</b> the <b>demands</b> of <b>fuel supply</b>.</li> <li>To test for <b>oxygen</b> put a <b>glowing splint</b> over the test tube and it will <b>relight</b>.</li> <li><b>Oceans</b> have formed due to the <b>condensation</b> of <b>water vapour</b>.</li> <li>The amount of <b>carbon dioxide</b> in the atmosphere has <b>decreased</b> because it <b>dissolved</b> in the <b>oceans</b>.</li> <li>The amount of <b>oxygen</b> in the atmosphere has <b>increased</b> as primitive <b>plants</b> grew and released <b>oxygen</b> via <b>photosynthesis</b>.</li> </ol>

## YEAR 11 CYCLE 2 CHEMISTRY



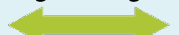

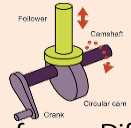
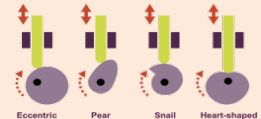

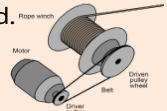


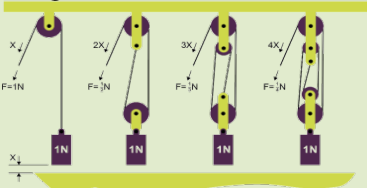
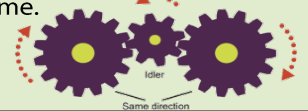
Week Five	Week Six	Week Seven
<ol style="list-style-type: none"> <li><b>Methane, carbon dioxide</b> and <b>water</b> are <b>greenhouse gases</b> found in the atmosphere.</li> <li><b>Methane</b> is produced from <b>livestock</b>.</li> <li><b>Carbon dioxide</b> is produced from the <b>burning of fossil fuels</b>.</li> <li>Greenhouse gases <b>absorb</b> heat <b>radiated</b> from the Earth and re-emit it which keeps the Earth <b>warm</b>.</li> <li>Hydrocarbons <b>differ</b> by:               <ol style="list-style-type: none"> <li>boiling point</li> <li>viscosity</li> <li>ease of ignition</li> <li>the number of carbon and hydrogens</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li><b>Alkanes</b> and <b>alkenes</b> are <b>hydrocarbons</b></li> <li><b>Alkanes</b> are:               <ol style="list-style-type: none"> <li><b>saturated</b> - have <b>no</b> carbon carbon <b>double bonds</b></li> <li>have the <b>general rule</b> <math>C_nH_{2n+2}</math></li> <li>their names end in '<b>ane</b>'</li> </ol> </li> <li><b>Alkenes</b> are:               <ol style="list-style-type: none"> <li><b>unsaturated</b> – <b>do</b> have carbon carbon <b>double bonds</b></li> <li>have the <b>general rule</b> <math>C_nH_{2n}</math></li> <li>their names end in '<b>ene</b>'</li> </ol> </li> <li>The <b>carbon number</b> links to <b>prefix</b>:               <ol style="list-style-type: none"> <li>one = meth</li> <li>two = eth</li> <li>three = pro</li> <li>four = but</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>An <b>addition</b> reaction occurs when <b>bromine</b> reacts with an <b>alkene</b>.</li> <li>Bromine water can be used to <b>determine</b> if a hydrocarbon is an <b>alkane</b> or an <b>alkene</b>.</li> <li>Bromine water mixed with an <b>alkene</b> will go <b>orange to colourless</b>.</li> <li>Bromine water mixed with an <b>alkane</b> will stay orange.</li> <li>When <b>hydrocarbons burn</b> and <b>complete</b> combustion takes place <b>oxidation</b> occurs forming <b>carbon dioxide</b> and <b>water</b>.</li> <li><b>Ethanol</b> is produced by the <b>fermentation</b> of <b>carbohydrates</b> using <b>yeast</b> which provides <b>enzymes</b>.</li> </ol>
Week Eight	Week Nine	Week Ten
<ol style="list-style-type: none"> <li><b>Alcohols</b>:               <ol style="list-style-type: none"> <li>have a <b>hydroxide functional</b> (-OH) group</li> <li>have the general rule <math>C_nH_{2n+1}OH</math></li> <li>are <b>organic</b> compounds</li> <li>react with <b>oxygen</b> to form <b>water</b> and <b>carbon dioxide</b></li> </ol> </li> <li>Alcohols can be <b>dehydrated</b> to form <b>alkenes</b>.</li> <li>Alcohols release <b>energy</b> when they are <b>burnt</b>.</li> <li>The <b>higher</b> the <b>carbon number</b> the <b>more energy</b> that is <b>released</b>.</li> <li>The <b>mass of fuel burnt</b> can be measured and the <b>energy change per gram</b> can be calculated.</li> <li>Temperature change/ mass of fuel burnt = energy change per gram.</li> </ol>	<ol style="list-style-type: none"> <li><b>Carboxylic acids</b>:               <ol style="list-style-type: none"> <li>are <b>organic</b> compounds</li> <li>have the <b>functional group</b> (-COOH)</li> <li><b>acidic</b></li> <li>names end in '<b>oic</b>'</li> <li>are members of the same <b>homologous group</b> and have <b>similar reactions</b></li> </ol> </li> <li><b>Alcohols</b> can be <b>oxidised</b> to form <b>carboxylic acids</b>.</li> <li><b>Methanol</b> is <b>oxidised</b> to form <b>methanoic acid</b>.</li> <li><b>Carboxylic acids</b> use the same <b>prefix's</b> as <b>alkanes, alkenes and alcohols</b>.</li> <li>1 – <b>methanoic acid</b>, 2 – <b>ethanoic acid</b>, 3 – <b>propanoic acid</b>, 4 – <b>butanoic acid</b></li> </ol>	<ol style="list-style-type: none"> <li>A <b>polymer</b> is substance made of <b>small repeating</b> units with a <b>high molecular mass</b>.</li> <li>The <b>uses</b> of polymers are <b>related</b> to their <b>properties</b>.</li> <li>A <b>polymerisation</b> reaction is an example of an <b>addition</b> reaction.</li> <li><b>Poly(ethene)</b> is a polymer of <b>ethene</b> and is an example of polymerisation.</li> <li><b>Polyester</b> is formed by a <b>condensation reaction</b>.</li> <li><b>Polyester</b>:               <ol style="list-style-type: none"> <li>is formed from <b>2 monomers</b></li> <li>each monomer contains <b>2 functional groups</b></li> <li>one monomer has <b>2 alcohol groups</b></li> <li>one monomer has <b>2 carboxylic groups</b></li> </ol> </li> </ol>



## YEAR 11 CYCLE 2 DESIGN TECHNOLOGY

Year 11 Design Technology Cycle Two	Key Vocabulary	Toughness	Malleability	Elasticity	Hardness	Ductility	Tensile strength		
Week One	Week One	Week Two	Week Two	Week Three	Week Three	Week Three	Week Three		
<p>1. Natural wood is categorised as either:</p> <p><b>Hardwoods</b> which come from deciduous trees, those that drop their leaves in the Autumn.</p> <p><b>Softwoods</b> which come from coniferous trees, those that have needles and keep them all year round.</p> <p>2. Metals are divided into two main categories.</p> <p><b>Ferrous metals</b> which contain the element iron, also known as ferrite (Fe)</p> <p><b>Non-ferrous</b> metals, which do not contain iron.</p>	<p>1. <b>Polymers</b> are usually made from synthetic materials. Usually derived from crude oil or other finite resources, such as coal or natural gas.</p> <p>2. Plastics are categorised into two types:</p> <p><b>Thermoforming</b> which can be remoulded without affecting the material's physical properties.</p> <p><b>Thermosetting</b> which have strong chemical bonds between the molecules, which do not separate on heating.</p>	<p>1. <b>Modern materials</b> are new and improved materials which are constantly being discovered and developed.</p> <p>2. Modern materials include:</p> <ul style="list-style-type: none"> <li>- Fibre optics</li> <li>- Titanium</li> <li>- Flexible MDF</li> <li>- Polymorph</li> <li>- Coolmorph</li> <li>- Biodegradable polymers</li> <li>- Biopol</li> <li>- Graphene</li> <li>- Liquid crystal display (LCD)</li> <li>- Nanomaterials</li> <li>- Metal foam</li> </ul>	<p>1. <b>Smart materials</b> react to an external stimulus by changing their characteristics and/or properties.</p> <p>2. Smart materials include:</p> <ul style="list-style-type: none"> <li>- Self-healing polymer</li> <li>- Self healing concrete</li> <li>- Thermochromic pigments</li> <li>- Photochromic particles</li> <li>- Photochromic pigments</li> <li>- Shape memory alloy (SMA)</li> <li>- Quantum tunnelling composite</li> <li>- Piezoelectric material</li> <li>- Piezo transducer</li> </ul>	<p>1. A <b>composite material</b> is a combination of two materials with different physical and chemical properties. When combined they create a material which is specialised to do a certain job.</p> <p>2. Composite materials include:</p> <ul style="list-style-type: none"> <li>- Glass reinforced plastic (GRP)</li> <li>- Carbon fibre reinforced plastic (CRP)</li> <li>- Gore tex</li> <li>- Aramids (Aromatic polyamide)</li> <li>- Microfibres</li> <li>- Microencapsulation</li> </ul>	Week Three	Week Four	Week Four	Week Five	Week Five
<p>1. Materials are usually selected for two purposes:</p> <ul style="list-style-type: none"> <li>- <b>Aesthetics (form)</b> - the appearance of a material.</li> <li>- <b>Function</b> – properties of a material in relation to its use.</li> </ul> <p>2. <b>Working properties:</b></p> <ul style="list-style-type: none"> <li>- Strength</li> <li>- Hardness</li> <li>- Durability</li> <li>- Elasticity</li> <li>- Toughness</li> </ul> <p>3. <b>Physical properties:</b></p> <ul style="list-style-type: none"> <li>- Density</li> <li>- Absorbency</li> <li>- Conductivity</li> <li>- Corrosive resistance</li> </ul>	<p>Designing and design decisions:</p> <p>1. <b>Iterative design</b> is a cycle of designing, prototyping and testing to develop an idea and achieve the best possible outcome. Each cycle and iteration improves the design and moves the design process forward.</p> 	<p>Designing and design decisions:</p> <p>1. <b>Ergonomics</b> is the process of designing or arranging products so that they fit the people who use them.</p> <p>2. <b>Anthropometrics</b> is the measurement of body sizes at rest and when using products and furniture.</p> <p>3. <b>Prototype:</b> is a first or preliminary version of a product which can be modified further.</p>	<p>Designing and design decisions:</p> <p>1. <b>Quality control (QC)</b> Process to check quality against a set standard or specification: the quality of the product at different stages of production.</p> <p>2. <b>Quality assurance (QA)</b> Does <b>not</b> check the quality of the final product but the quality of all systems on the production line, staff training and quality monitoring.</p>	<p>Surface treatments and finishes are applied to materials for two main reasons:</p> <p>1. <b>Protection:</b> attack from nature and the elements commonly includes weather protection:</p> <ul style="list-style-type: none"> <li>- Oxidisation and corrosion</li> <li>- Rot</li> <li>- Mould</li> <li>- UV degradation</li> <li>- Insect and biological attack</li> </ul> <p>2. <b>Appearance:</b> applied for purely aesthetic reasons:</p> <ul style="list-style-type: none"> <li>- Printing, dyeing, staining</li> <li>- Embellishment</li> <li>- Applying a sheen or texture</li> </ul>					

## YEAR 11 CYCLE 2 DESIGN TECHNOLOGY

YEAR 11 Design Technology Cycle Two																					
Key Vocabulary		Motion	Linkage	Magnitude	Fulcrum (pivot)	Velocity	Equilibrium														
		The action or process of movement in a particular direction	A linkage can change the direction of motion and the amount of force	is the size or amount of something, as opposed to its direction	Is the point where a lever pivots to move a load	The speed of an object in a given direction	When a lever is balanced it has equilibrium - the load is balanced on either side														
Week Six		Week Six		Week Seven		Week Eight															
<p><b>Linear motion</b> moves in a straight line in one direction only.</p>  <p><b>Rotary motion</b> rotates around a central axis.</p>  <p><b>Reciprocating motion</b> moves back and forth or up and down along a straight line.</p>  <p><b>Oscillating motion</b> moves back and forth along a curved line.</p> 		<p>1. Cams are shaped pieces of material that are attached to the camshaft.</p> <p>2. Cams change rotary motion into reciprocating motion through a follower.</p>  <p>3. Types of cams. Different shaped cams are used for different tasks:</p> 		<p>1. Levers use mechanical advantage to make lifting or applying pressure easier. All levers are made of a bar and a pivot, called a fulcrum. Levers have three main parts:</p> <ul style="list-style-type: none"> <li>- <b>Effort</b></li> <li>- <b>Fulcrum</b></li> <li>- <b>Load</b></li> </ul> <p>There are three types of lever:</p> <table border="1" style="font-size: small;"> <tr> <td>Class 1</td> <td>Effort</td> <td>Fulcrum</td> <td>Load</td> </tr> <tr> <td>Class 2</td> <td>Effort</td> <td>Load</td> <td>Fulcrum</td> </tr> <tr> <td>Class 3</td> <td>Fulcrum</td> <td>Effort</td> <td>Load</td> </tr> </table> <p>2. <b>Mechanical advantage</b> To overcome a large load with relatively little effort. <b>Mechanical advantage = effort ÷ resistance</b></p>		Class 1	Effort	Fulcrum	Load	Class 2	Effort	Load	Fulcrum	Class 3	Fulcrum	Effort	Load	<p>Drive mechanisms:</p> <p>1. A <b>gear</b> is a toothed cog wheel fixed to a shaft which rotates. A <b>gear train</b> is where two or more gears mesh together.</p>  <p><b>Gear ratio = number of teeth on driven gear ÷ number of teeth on the drive gear</b></p> <p>2. <b>Pulleys</b> are wheels with a grooved rim which a belt passes around.</p> 		<p>1. Linkages are mechanisms that use rigid parts to change:</p> <ul style="list-style-type: none"> <li>- the magnitude of a force</li> <li>- the direction of a force, or transform it into a different motion</li> </ul> <p>2. <b>Reverse motion linkage</b> changes the direction of the input motion.</p>  <p>3. <b>Parallel motion linkage</b> keeps the direction of the output the same as the input.</p> 	
Class 1	Effort	Fulcrum	Load																		
Class 2	Effort	Load	Fulcrum																		
Class 3	Fulcrum	Effort	Load																		
Week Eight		Week Nine		Week Nine		Week Ten															
<p>All materials, structures and products have to withstand various stresses as forces are applied, these include:</p> <ul style="list-style-type: none"> <li>- Tension</li> <li>- Compression</li> <li>- Bending</li> <li>- Torsion</li> <li>- Shear</li> </ul> <p><b>Force = Mass x Acceleration</b></p> <p><b>Static load;</b> this is a load that does not change in size, position or direction.</p> <p><b>Dynamic load;</b> this is a load that changes in either size, position or direction.</p>		<p>Designing and design decisions:</p> <ol style="list-style-type: none"> <li>1. <b>Ergonomics</b> is the process of designing or arranging products so that they fit the people who use them.</li> <li>2. <b>Anthropometrics</b> is the measurement of body sizes at rest and when using products and furniture.</li> <li>3. <b>Prototype:</b> is a first or preliminary version of a product which can be modified further.</li> </ol>		<p>Designing and design decisions:</p> <ol style="list-style-type: none"> <li>1. <b>Quality control (QC)</b> Process to check quality against a set standard or specification: the quality of the product at different stages of production.</li> <li>2. <b>Quality assurance (QA)</b> Does <b>not</b> check the quality of the final product but the quality of all systems on the production line, staff training and quality monitoring.</li> </ol>		<p>1. <b>Tolerance</b> is an acceptable margin of error for manufactured parts.</p> <p>2. <b>Tessellation</b> limits the amount of waste material by nesting shapes together.</p> <p>3. <b>SI units - <i>Système international</i></b> units are standard across the world, these include:</p> <ul style="list-style-type: none"> <li>- Metre</li> <li>- Kilogram</li> <li>- Ampere</li> </ul> <p>The preferred unit of measurement is millimetres (mm) for accuracy without the need for a decimal point.</p>		<p>1. <b>Block and tackle</b> systems combine pulleys to lift heavy weights.</p>  <p>2. An <b>idler gear</b> ensures that the direction of the drive gear and the driven gear are the same.</p> 													



## YEAR 11 CYCLE 2 HEALTH AND SOCIAL CARE - Component 3 Health & Wellbeing

### Learning Aim A: Physical and Lifestyle Factors

How can factors such as health and lifestyle choices affect us? Understanding these factors is essential knowledge for your component 3 Health and Social Care exam.

**WEEK 1: Health and wellbeing** – Not just the absence of disease but a holistic attitude:

- Physical** - healthy body & diet, sleep, shelter and personal hygiene.
- Intellectual**- Healthy brain, learn new knowledge, communicate & solve problems.
- Emotional** - Security, express & deal with emotions, self-concept.
- Social** – friendships and relationships.

**Ill Health** - A physical factor which can have a negative effect on health & wellbeing.

- Acute**- Illness starts quickly, lasts for a short period of time. Usually cured e.g. flu.
- Chronic**- Comes on more slowly, lasts a long time. Usually treated but not cured e.g. diabetes.

**WEEK 2: Genetic Inheritance**- Genes inherited from both parents:

- Inherited characteristics** - height, eye colour, hair colour.
- Inherited conditions**-Some alleles (genes) can be faulty & pass on conditions.

**Dominant condition**- One parent passes faulty allele on e.g. Huntington's.

**Recessive condition**- Both parents pass faulty allele on e.g. Cystic fibrosis.

- Genetic predisposition** - Some people are more likely to develop a condition due to genetic makeup *i.e. heart disease*.



**WEEK 3: Diet**-The balance of foods a person eats:

- Foods to avoid**
  - **Salt** – raises blood pressure
  - **Saturated fat** – raises cholesterol, heart disease
  - **Sugar** – rots teeth, high in kcals (energy)
- Other points**
  - Water is important to stay hydrated
  - Controlled calorie intake can manage weight



Section	Nutrient	Needed for
Starchy foods	Carbohydrates (fibre if wholemeal)	Carbohydrates - Provides energy Fibre – Digestive system/prevents constipation
Fruit & vegetables	Vitamins Fibre	Vitamins - Keep the body healthy Fibre – Digestive system/prevents constipation
Meat, fish, eggs, beans	Protein	Growth and repair of cells and muscles
Dairy	Calcium	Strong bones and teeth
Oils	Unsaturated fats	Reduces cholesterol, Keeps the body warm, Protects organs

**WEEK 4: Physical Activity**

- Exercise types**- Gentle e.g. walking/ Moderate e.g. light jog/ Vigorous e.g. football.
- How much?** - Adult: approx. 150 mins moderate exercise per week.
- Exercise Benefits**- lowers BMI, strengthen bones & muscle. Better memory & thinking skills. Increases confidence and relieves stress. Social interaction and teamwork.
- Lack of exercise:** Stiff joints, Poor stamina/strength, Obesity, Stroke, Heart disease and Osteoporosis.

**WEEK 5: Personal Hygiene**

- Good personal hygiene**- Prevents spread of infection/ Improves self-concept/ Washing/ Brushing and washing hair/ Brushing teeth/ Clean clothes.
- Effect on PIES of poor hygiene**-  
**Physical**- Catching & spreading disease, Poor body odour, poor oral hygiene/ **Intellectual**– Reduction of opportunities/  
**Emotional**– poor self-concept, bullied/ **Social** – social isolation, loss of friendship.

**WEEK 6: Substance misuse**

- Alcohol** - Men & women should drink less than 14 units/week, 1 unit = one single spirit, 1.5 units = 1 pint, 1 small glass of wine. Can increase risk of addiction & cancers.
- Smoking & Nicotine** – Cigarettes contain nicotine (addictive drug), tar, carbon dioxide & soot which are all harmful. People smoke to relieve stress, peer pressure, or are unable to quit.
- Drugs – Legal. Prescription misuse** - when people become addicted to them, take excess, or take someone else's.
- Drugs – Illegal**  
**Stimulants** – Increase alertness *i.e.* Cocaine.  
**Depressants** –calm, relax the body *i.e.* Cannabis.  
**Hallucinogens** – cause hallucinations *i.e.* LSD.



## YEAR 11 CYCLE 2 MUSIC

## KS4 Key Vocabulary

Term	Meaning
Conjunct	When notes in a melodic phrase move up and down in steps.
Disjunct	When melodic phrases contain leaps between the notes.
Diatonic	Notes used within a particular key/scale E.g. C Major uses the notes C D E F G A B C.
Atonal	Music that lacks any particular key or mode.
Dissonance	When notes clash together to make an unpleasant sound.
Syncopation/Syncopated	Playing sounds in-between the main beats of the music.
Off Beat	Not playing on the main beats of the bar. Emphasising beats 2 and 4.
Back Beat	A steady rhythm stressing the 2nd and 4th beats of a four-beat measure.
Four on the floor	A 4-beat rhythm in which the bass drum is hit on every beat.
Homophonic	Texture with just melody and chords.
Polyphonic	Texture where there are multiple melodies/musical ideas played at the same time.
Strophic	Verse-Chorus song structure.
Polyrhythm	Many rhythms that are played together at the same time.
Cross Rhythm	When two or more conflicting rhythms are played together.
Bubble Rhythm	Often heard in Reggae on the organ where chords tend to be played in between the main beats on the 'and'.
Power chords	A chord is made of two different notes using notes 1 and 5 (guitar).
Drop Tuning	When the bottom E string is changed to a different note. E.g. Drop D or Drop C.

Music

YEAR 11 CYCLE 2 MUSIC

KS4 Key Vocabulary

Music

Term	Meaning
Distortion	Effect used on the guitar to create a 'Fuzzy' 'Growly' sound.
Reverb	An audio effect that causes the sound to linger for longer.
Quantize	DAW - Moving notes recorded into a MIDI sequencer or DAW in line with the "grid to be more in time.
Major	Happy sounding key or chord.
Minor	Sad sound key or chord.
Improvisation	Composing or creating music on the spot, often used in Jazz and Blues. Melodies will fit with particular keys or modes.
Riff	A short repeated melodic or rhythmic idea.
Ostinato	A short musical idea that is repeated continually throughout a piece of music.
Seventh Chords	A triad chord with the addition of the 7 <sup>th</sup> Note.
Loops	Repeated section of music material. Often used in DAWs.
Leitmotif	A short repeated musical idea that represents a main character or idea.
Mickey-Mousing	Music used to imitate the action happening on screen.
Foley	Sound effects added to create particular sounds for a movie or game. E.g. Glass breaking or walking on snow.

Compositional features	Sonic Feature
Melody	Instrumentation
Harmony	Timbre
Tonality	Texture
Rhythm	Production
Structure	



## YEAR 11 CYCLE 2 PERFORMING ARTS - Component 3 Preparation

Week 1 and 2	Week 3 and 6	Week 4 and 7	Week 5 and 8	Week 9 and 10
<p><b>Assessment Objectives</b>                      AO1 – Understand HOW to respond to a brief                      AO2 – Select and develop skills and techniques in response to a brief                      AO3 Apply Skills and Techniques in a workshop performance in response to a brief                      AO4 – Evaluate the <b>DEVELOPMENTAL PROCESS</b> and <b>OUTCOME</b> in response to a brief</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Acting Toolkit – TECHNIQUES</b>                              Freeze-frame                              Monologue                              Slow motion                              Pause                              Cross-cutting                              Mime                              Symbols                              Thought tracking                              Choral speaking                              Flashback                              Narrative                              Direct address                              Multi-rolling                              Masks</p> </div>	<p><b>Development of Ideas</b>  <u>Discussion of key requirements</u></p> <ul style="list-style-type: none"> <li>- Target audience</li> <li>- Performance space</li> <li>- Planning and managing resources</li> <li>- Running time</li> <li>- Style of work</li> </ul> <p><b>Starting Points</b></p> <ul style="list-style-type: none"> <li>- A theme or concept</li> <li>- An issue</li> <li>- A prop</li> <li>- A time or place</li> <li>- Existing repertoire</li> </ul> <p><b>Be guided by</b></p> <ul style="list-style-type: none"> <li>- The structure of the work</li> <li>- Style and genre of the work</li> <li>- Skills required</li> <li>- Your creative intentions</li> </ul> <p><b>Working effectively as a group</b></p> <ul style="list-style-type: none"> <li>- Making an Individual contribution</li> <li>- Responding to the contribution of others</li> </ul>	<p><b>Selecting and Developing Skills and Techniques for Performance</b>  <b>Demonstrate how to select and develop performance skills and techniques that are needed to realise the creative ideas in response to the brief</b></p> <ul style="list-style-type: none"> <li>- Skills and techniques of the individual performer e.g. voice and /or physical movement</li> <li>- Skills and techniques of the group: e.g. Comedy/improvisation</li> <li>- The style and/or genre of the work being created e.g. Naturalism/Epic Theatre/Physical theatre</li> <li>- The influence of selected practitioners – e.g. Boal/Brecht/Stanslavski</li> <li>- Appropriate skills for the target audience – e.g. young children/the elderly</li> <li>- Taking part in skills development workshops</li> <li>- Taking part in the rehearsal process</li> </ul>	<p><b>Taking Part in a Workshop performance</b>  <b>Performance skills and techniques</b></p> <ul style="list-style-type: none"> <li>- Demonstrating effective use of performance skills and techniques in a workshop performance to a target audience – vocal skills/physical skills/interpretative skills/showing of character</li> <li>- Demonstrating and sustain skills – focus/energy/concentration/commitment</li> </ul> <p><b>Working Effectively with others</b></p> <ul style="list-style-type: none"> <li>- Communicating effectively with other performers in preparation for and during performance</li> <li>- Taking part in final group preparations – set up/get out/performing</li> </ul> <p><b>Communicating ideas through performance</b></p> <ul style="list-style-type: none"> <li>- Show to an audience</li> <li>- Effective communication of ideas to an audience</li> </ul>	<p><b>Evaluating the development Process and Performance outcome</b>  <b>Reflect on the Process</b></p> <ul style="list-style-type: none"> <li>- Contributing to initial ideas and exploring activities in response to the brief/the stimulus/ contributions from other group members</li> <li>- Contributing to the development process</li> <li>- Skills and techniques</li> <li>✓ Selection</li> <li>✓ Development and/or adaptation</li> <li>✓ Application</li> <li>✓ Individual strengths and areas for improvement</li> <li>✓ Overall individual contribution to the group</li> </ul> <p><b>REFLECT ON THE OUTCOME</b></p> <ul style="list-style-type: none"> <li>• Effectiveness of the response to the brief</li> <li>• Individual strengths and areas for improvement</li> <li>• Overall impact of the work of the group</li> </ul>

## YEAR 11 CYCLE 2 PHOTOGRAPHY

## Year 11 Photography Exam Timeline

### Week 1 - AO1/AO3 - Research/Record Ideas

Generate a **mind map** based on your chosen exam theme. Write down all the different ideas and directions you could explore. Next, create a **mood board** of inspirational images, paintings, movie clips, poems and visit galleries for ideas.

### Week 2 - AO1 Investigate Artists' Work

Pick 2 photographers whose work inspires you for your chosen theme. Write down 10 words using photography specific language to describe their work. Use your handbooks to write about your artists. Then, select one image from each to **analyse** in more detail. Use the following method of analysis:

- **Context** – what is happening outside of the image.
- **Content** – looking at the subject of the photograph.
- **Form** – looking at composition and formal elements.
- **Process** – how the photograph has been taken, edited, manipulated and printed.

### Week 3 – AO3 Plan a Photoshoot/Record Ideas

Plan, annotate and draw ideas to illustrate your intentions for your first photoshoot. **You need to plan for two separate shoots.** You get extra marks for drawings and sketching your intentions. Simple diagrams are ok.

- **Links to photographers:** how will you show links to your research artists?
- **Concept:** explain what/who you are going to photograph.
- **Lighting:** will you be shooting inside, outside, on a dull day, in bright sunshine, at night...etc.
- **Location:** where do you plan to take your photos?
- **Composition:** how will you compose your shots?
- **Skills:** what camera skills will you be demonstrating? Use of shutter speed, aperture, ISO?

**TAKE PHOTOS IN RESPONSE TO BOTH ARTISTS**

### Week 4 - AO3 – Contact Sheet/Annotate

Create two **contact sheets** from your first shoot. Your images need to be specific to each artist's work. Annotate them. Which images were successful? Why? Highlight interesting compositions/lighting/posing/camera technique etc.

**Review your shoot:** What was successful about your shoot? What were the unsuccessful elements? Why was this? What other shots could you take in order to make the shoot more successful? What other ideas do you have now?

**Begin to edit in the style of your chosen artists.**

### Week 5 - AO2 – Experimenting & Refining

Using Photoshop or manually, **edit** your photos to look like the work of your inspirational artist. Aim to edit 4-5 images, each showing progression in skill and/or thought.

- Show the before and after.
  - Edit different photographs each time.
  - Do something different in each experiment.
  - Show a range of editing and camera skills
- Explain your process. Evaluate the success of your work.

### Week 6 - AO1/AO3 – Develop

Pick a third inspirational artist. Analyse their work, explain how your next photoshoot will link to their work. Suggest ways of **combining ideas** from artist 1 and 2. Plan your photoshoot. Take photos. Create a contact sheet.

### Week 7 - HALF-TERM

Take photos to refine your work.  
**Make sure that all work for the first half is up to date.**

### Week 8 - AO2 – Experiment & Refine

Create 2-4 realisations where you **combine** the style of your 2 artists. Carefully consider the use of materials and try to be experimental, **mixing materials and techniques.** These images should begin to tell a story and have a **deeper meaning** to them – this is essential for grade 6-9 student. What are your intentions and why?

**Annotate each realisation by answering these questions:**

- Which photographers have inspired this realisation?
- What is the meaning behind this piece of work?
- What has been successful/unsuccessful?
- What are you going to try next? (compositions, subjects, lighting, materials, layering, Photoshop skill?)

### Weeks 9 - AO3

Plan your next photoshoot as **in week 3.**  
**TAKE PHOTOS IN RESPONSE TO YOUR THIRD ARTISTS.**

### Week 10 - AO2 – Experimenting & Refining

Edit photos in the style of your third artist. Then begin combining styles and processes from artists 1, 2 and 3. Think about what new editing skills you can learn on and off the computer. Present and review your work.

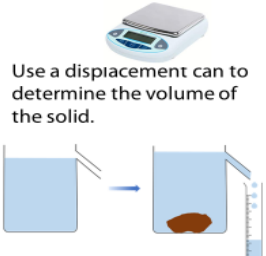

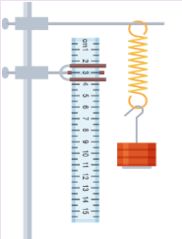
### Week 11 - Prepare for the exam

Your work needs to be personal and you need to show how your skills as a photographer have developed over the course of your GCSE. What camera skills, techniques and processes can you bring to your final piece. Do you need to experiment with a new technique? Do you need to take more photos to use in your exam? Do you have a final piece in mind? Sketch what this looks like. Can it be realised within your 10 hour time frame.?

## YEAR 11 CYCLE 2 PHYSICS

Year 11 Separate Physics Cycle Two	Week One	Week Two
<p><b>Key Vocabulary</b></p> <ol style="list-style-type: none"> <li><b>Absolute zero</b> – the temperature at which the pressure of a gas drops to zero and particles stop moving.</li> <li><b>Chemical change</b> – a change that results in the formation of new substances.</li> <li><b>Electromagnet</b> - A magnet made using a coil of wire with electricity flowing through it.</li> <li><b>Kelvin temperature scale</b> – a temperature scale that measures temperatures relative to absolute zero.</li> <li><b>Motor effect</b> - The force experienced by a wire carrying a current that is placed in a magnetic field.</li> </ol> <p><b>GCSE Exam breakdown:</b> Each paper is worth <b>50%</b> of your grade.</p> <p><b>Paper 1- 105 minutes:</b></p> <ol style="list-style-type: none"> <li>Topic 1: motion</li> <li>Topic 2: motion and forces</li> <li>Topic 3: conservation of energy</li> <li>Topic 4: waves</li> <li>Topic 5: light and the EM spectrum</li> <li>Topic 6: radioactivity</li> <li>Topic 7: astronomy</li> </ol> <p><b>Paper 2- 105 minutes:</b></p> <ol style="list-style-type: none"> <li>Topic 8: forces doing work</li> <li>Topic 9: forces and their effects</li> <li>Topic 10: electricity and circuits</li> <li>Topic 11: static electricity</li> <li>Topic 12: magnetism and motor effect</li> <li>Topic 13: Electromagnetic induction</li> <li>Topic 14: Particle model</li> <li>Topic 15: forces and matter</li> </ol>	<ol style="list-style-type: none"> <li><b>Unlike</b> magnetic poles <b>attract</b>, <b>like</b> magnetic poles <b>repel</b>.</li> <li><b>Permanent magnets</b> – always magnetic and can attract magnetic materials, e.g., iron, nickel and cobalt.</li> <li><b>Temporary magnets</b> – when magnetic materials can become induced and be magnetic – this is called an <b>induced</b> magnet.</li> <li>Flowing a current through a conductor will result in a magnetic field and circular magnetic field lines will be seen. <b>The strength depends on the size of the current and the distance from the long straight conductor.</b></li> <li><b>Solenoid</b> - when a wire is coiled to produce an electromagnet. The more coils the stronger the magnet.</li> </ol>	<p><b>Magnetic Forces –</b></p> <ol style="list-style-type: none"> <li>A wire carrying a current experiences a force when it is placed between two magnets.</li> <li>The current creates a magnetic field around the wire which interacts with the magnets.</li> <li>The force is greatest when the wire is at right angles to the magnetic field of the magnets, and zero if it is in the same direction.</li> <li>Flemings left hand rule shows the direction of the force.</li> </ol> <p><b>Electric Motors</b></p> <ol style="list-style-type: none"> <li>The force on a conductor in a magnetic field is used to cause rotation.</li> <li>One magnet pushes the wire upwards whilst the other wire pushes it down.</li> <li>Split-ring commutator always has the current flowing in the correct direction, so the force continues to make the coil spin.</li> </ol>
	<p><b>Week Three</b></p> <p><b>Electromagnetic induction -</b></p> <ol style="list-style-type: none"> <li>A changing magnetic field induces a potential difference (p.d) in a wire, which causes a current to flow.</li> <li>A p.d is also induced if a wire is moved in a magnetic field. The size of the p.d depends on the number of coils of wire, how fast the magnetic field changes or moves past the coil.</li> </ol> <p><b>National grid –</b></p> <ol style="list-style-type: none"> <li>Consists of a network of wires</li> <li>Sends electrical energy around the country,</li> <li>When electrical energy flows transmission lines get warm as energy is lost as waste (this happens more with a high current).</li> <li>Transformers reduce the energy loss by changing the p.d. and current.</li> </ol>	<p><b>Week Four</b></p> <ol style="list-style-type: none"> <li><b>Transformers</b> - are used to change the potential difference (voltage) of an alternating current.</li> <li>A transformer is made up of 2 coils of wire wound around an iron core, there is no electrical connection between the 2 coils of wire.</li> <li>An effect called electromagnetic induction means that a voltage in one coil induces a voltage in the second.</li> <li><b>Step – up transformer</b> – increases the voltage and decreases the current = less energy lost when going from power station to transformer.</li> <li><b>Step-down transformer</b> – decreases the voltage and increases the current = to be used by homes and factories.</li> </ol>

## YEAR 11 CYCLE 2 PHYSICS

Week Five	Week Six	Week Seven
<p>Core Practical 2 – Investigating the densities of solids and liquids.</p> <p><b>Density in Solids</b></p> <ol style="list-style-type: none"> <li>Use a balance to find the mass of the solid.</li> <li>Use a displacement can to determine the volume of the solid.</li> </ol>  <p><b>Density in Liquids</b></p> <ol style="list-style-type: none"> <li>Use a balance to find the mass of the liquid.</li> <li>Read the volume off the measuring cylinder.</li> </ol>  <p>Density (<math>\text{Kg/m}^3</math>)</p> <p>Mass (Kg)</p> <p>Volume (<math>\text{m}^3</math>)</p> <p><math>\rho \times V = m</math></p>	<ol style="list-style-type: none"> <li><b>Kinetic theory</b> – states that everything is made up of matter.</li> <li><b>Solid</b> - Particles in fixed positions, regular arrangement, vibrate in fixed positions when heated. Lowest energy. Highest density.</li> <li><b>Liquid</b> – Particles are touching but can flow past each other, will take the shape of an object. Has more energy than a solid but less than a gas.</li> <li><b>Gas</b> – Random arrangement of particles, not touching. Particles move fast in all directions. Lowest density.</li> <li><b>Density</b> – The mass of a certain volume of a substance.</li> <li><b>Density (<math>\text{kg/m}^3</math>) = Mass (kg) x Volume (<math>\text{m}^3</math>)</b> <ol style="list-style-type: none"> <li><math>P = m / V</math></li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li><b>Pressure of a gas</b> –       <ol style="list-style-type: none"> <li>measured in <b>pascals</b> (Pa)</li> <li>Due to forces on the walls of a container, caused by moving particles hitting the walls.</li> <li>The faster particles move, the more they hit the walls and the higher the force – increasing the temperature increases the force.</li> </ol> </li> <li><b>Absolute zero</b> <ol style="list-style-type: none"> <li><math>-273^\circ\text{C}</math> or <math>0\text{K}</math> (<b>Kelvin</b>)</li> <li>To convert from K to <math>^\circ\text{C}</math> subtract 273.</li> <li>To convert from <math>^\circ\text{C}</math> to K add 273.</li> <li>The temperature where there is a lack of movement of particles.</li> <li>If a gas could be made this cold the pressure would be zero due to no particles moving and hitting container walls.</li> </ol> </li> </ol>
<p><b>Week Eight</b></p> <p><b>Energy stored in a spring</b></p> <ol style="list-style-type: none"> <li><b>Work is done</b> when a spring is extended or <b>compressed</b>. <b>Elastic potential energy</b> is stored in the spring.</li> <li>Provided inelastic distortion has not happened, the work done is equal to the elastic potential energy stored.</li> <li>The elastic potential energy stored can be calculated using the equation: <b>elastic potential energy =</b> <math>0.5 \times \text{spring constant} \times (\text{extension})^2</math></li> <li>The units are: elastic potential energy (<math>E_e</math>) is measured in joules (J) spring constant (<math>k</math>) is measured in newtons per metre (N/m) extension, referring to the increase in length, (<math>x</math>) is measured in metres (m).</li> </ol>	<p><b>Week Nine</b></p> <p><b>investigating force and extension with a spring (core practical)</b></p> <ol style="list-style-type: none"> <li>Aim of this experiment is to investigate the relationships between force and extension for a spring, and the work done in extending the spring.</li> <li>It is important to:       <ul style="list-style-type: none"> <li>record length accurately</li> <li>measure and observe the effect of force on the extension of springs</li> <li>collect the data required to plot a force-extension graph</li> </ul> </li> </ol>  <p>The extension of a spring is the change of length when forces are applied. Springs have a <b>linear</b> relationship between force and length. If the spring is stretched too far the relationship becomes <b>non-linear</b>.</p>	<p><b>Week Ten</b></p> <ol style="list-style-type: none"> <li>The <b>force</b> generated when gas particles hit a surface acts at <b>right angles</b> to the surface. We call this gas pressure.</li> <li>If the same number of particles are forced into a smaller volume at the same temperature, they hit the walls more often, so the force (gas pressure) <b>increases</b>.</li> <li>Pressure and volume of a fixed mass of gas at a constant temperature are linked in the equation:</li> <li><b><math>P_1 \times V_1 = P_2 \times V_2</math></b></li> <li>Start pressure (<math>P_1</math>) and the start volume (<math>V_1</math>) equal the product of the final pressure (<math>P_2</math>) and the final volume (<math>V_2</math>).</li> <li>Units are Pa for pressure and <math>\text{m}^3</math> for <b>volume</b>, although any unit can be used as long as it is the same on both sides of the equation.</li> <li>Bicycle pumps get warm because when pushing the handle the force transfers energy to the gas inside the pump. <b>Energy</b> transferred by a force is called <b>work done</b>.</li> </ol>

## YEAR 11 CYCLE 2 SOCIOLOGY

## GCSE Sociology: Year 11, Cycle 2: Crime and Deviance

Week 1: Key ideas	Week 2: Sociological views	Weeks 3 and 4: Who commits crimes?	Week 5: The media
<p><b>Crime:</b> An illegal act punishable by law.</p> <p><b>Deviance:</b> Behaviour that does not conform to society's rules and norms.</p> <p><b>Social Order:</b> For people to live and work together a certain amount of order and predictability is needed.</p> <p><b>Functionalists</b> argue this is based on value consensus.</p> <p><b>Marxists</b> argue that social order is maintained because of class conflict. The bourgeoisie have power and control to enforce order and influence the law.</p> <p><b>Social Control:</b> Much of our behaviour is socially controlled.</p> <p><b>Formal social control:</b> Based on written rules and laws.</p> <p><b>Agencies of formal social control:</b></p> <ul style="list-style-type: none"> <li>• Houses of Parliament</li> </ul> <p><b>Informal social control:</b> Based on unwritten rules and processes such as approval and disapproval.</p> <p><b>Agencies of informal social control:</b></p> <ul style="list-style-type: none"> <li>• Family members</li> <li>• Peers</li> <li>• Teachers</li> <li>• Work colleagues</li> </ul>	<p><b>Functionalists:</b> Crime is vital and necessary for all societies. It helps remind people about boundaries of acceptable and unacceptable behaviour. When the public come together over a reaction to a major crime, it creates social cohesion. (Durkheim)</p> <p><b>Marxists:</b> Because society is based on values such as materialism, consumerism and competition, it is unequal. Some people cannot earn enough to fit these norms and values, so they commit crimes to get them.</p> <p><b>Feminists:</b> Women are treated and punished as double deviants- they have firstly broken the law and second the norms that govern their gender behaviour. Arguments around the 'chivalry thesis'</p> <p><b>Interactionalists:</b> Labelling produces a self-fulfilling prophecy. Social groups create deviance by making rules and applying them to particular people and labelling them as 'outsiders'. Groups whose social position gives them power are able to label people.</p>	<p><b>Gender</b></p> <p><u>Women committing less crime.</u></p> <ul style="list-style-type: none"> <li>• Gender socialisation</li> <li>• Fewer opportunities</li> <li>• More responsibilities</li> <li>• May be treated differently in the criminal justice system, given a lenient sentence. Chivalry thesis</li> <li>• Women are treated more harshly- double deviancy, so do not commit crime.</li> </ul> <p><u>Women's involvement in crime is increasing:</u></p> <ul style="list-style-type: none"> <li>• Lost a lot of their controls and restraints</li> <li>• Women are not experiencing equality in the workplace-gender pay gap.</li> </ul> <p><b>Ethnicity</b></p> <ul style="list-style-type: none"> <li>• Inaccurate statistics</li> <li>• Labelling- racism and stereotyping within the police practice.</li> <li>• More ethnic groups are stopped and searched.</li> <li>• Linked to their social class, minority groups possibly experience poverty and this leads to crime.</li> <li>• Reporting in the media on particular groups can generate mistrust and hostility.</li> </ul>	<p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Inaccurate statistics</li> <li>• Lower-class criminals may commit crimes that are more identifiable and more likely to be targeted by the police.</li> <li>• Socialisation.</li> <li>• Material deprivation - may commit crime to obtain the things others have.</li> <li>• Education – Working class are more likely to be in the bottom sets so may look for other routes to get what they need e.g. crime.</li> <li>• Labelling</li> <li>• White collar crime is not as easily identifiable as crimes committed at lower levels.</li> </ul> <p><b>Age</b></p> <ul style="list-style-type: none"> <li>• Status frustration- lack of independence.</li> <li>• Lack of responsibilities can lead to deviant and criminal behaviour.</li> <li>• Peer Pressure</li> <li>• Thrill seeking and risk-taking. Getting a "buzz" from committing a crime or deviant behaviour.</li> <li>• Socialisation- Some young people are inadequately socialised and have learned criminal behaviour as a norm or value.</li> <li>• Police stereotyping</li> </ul> <p><b>1. Is the media biased in its presentation of crime?</b></p> <ul style="list-style-type: none"> <li>• The media sets the agenda in terms of what is seen to be important.</li> <li>• The media is more likely to report stories involving children, violence, celebrities, local interest, and graphic images.</li> <li>• 46% of media reports are about violence or sexual crimes, yet these only make up for 3% of crime recorded by the police (Ditton &amp; Delphy 1983)</li> <li>• 'Deviancy amplification' is used to describe the impact of the media on the public perception of crime.</li> </ul> <p><b>2. Does the media create crime?</b></p> <ul style="list-style-type: none"> <li>• Media content can have a negative impact on the behaviour of young people and children.</li> <li>• Some people may imitate violence and immoral or antisocial behaviour seen in media. The media is regarded as a powerful secondary agent of socialisation.</li> <li>• Video games are often blamed as a link between increased aggressive behaviour and crime.</li> </ul>

# YEAR 11 CYCLE 2 SOCIOLOGY

## Year 11, Cycle 2

## GCSE Sociology Knowledge Organiser Social stratification

### Key terms

Absolute poverty - Not being able to afford the basic things you need to survive in life (e.g. food, clothing)  
 Achieved status - Social positions are earned through personal talent, merit and effort, not fixed at birth.  
 Ascribed status - Social positions/status are fixed at birth (due to class) and do not change over time.  
 Bourgeoisie - The ruling class who owned the means of production and exploited the working class.  
 Culture of dependency - The welfare system encourages people to stay on benefits rather than support themselves through work.  
 Glass ceiling - An invisible barrier in employment that prevents some groups such as women or ethnic minorities from gaining promotions.  
 Life chances - The opportunity/chance of achieving positive or negative outcomes (e.g. healthy/ill, rich/poor) as you progress throughout life.  
 Power - The ability to get what you want, despite opposition.  
 Pressure group - A group formed to influence government policy on a particular issue.  
 Relative poverty - Not being able to afford to meet the general standard of living compared to most other people in their society.  
 Social exclusion - The inability of some groups in society (e.g. the elderly, the working class) to play a full part in society/access the full benefits.  
 Social inequality - The uneven distribution of resources (e.g. money or power) and opportunities.  
 Social mobility - The ability to move up the social ladder.  
 Social stratification - How society is structured in a hierarchy of layers based on factors such as age, gender  
 Status - The social standing or prestige someone is given by other members of society.  
 Underclass - A group in society who have different attitudes and values to others. They experience long-term unemployment, tend to be reliant on benefits.  
 Wealth - The ownership of assets (e.g. property, land, jewelry) and savings, shares etc.  
 Welfare dependency - When individuals are reliant on the government for income for a prolonged period of time.

### Theories of social stratification

**Functionalist** - Social stratification is positive for society. Society is based on meritocracy and status is 'achieved' through hard work and effort.  
 'Role allocation' - top roles are filled by those who are able, ambitious and competitive - allows society to run smoothly.

**Marxists** Social stratification is negative for society. Society is based on conflict and status is 'ascribed' - is fixed at birth by class and cannot be changed. Top roles are filled by the bourgeoisie and creates inequality.

**Feminists** Social stratification is negative for society. Society is based on conflict and patriarchy with the top roles being filled by men and women being lower in the hierarchy.

### Social stratification and class

	Working class Unskilled/manual work, lack of formal education	Middle class Professional jobs, formal education e.g. University	Upper Aristocracy, elite education, 'titles' given
How is class measured?	NS-SEC: Measures class by occupation (job) <input type="checkbox"/> Ignores wealth/status as a measure of class		
Does class affect life chances?	Yes - Marxists - status is ascribed, working classes have poorer opportunities in education, employment, health, housing No - Functionalists - status is achieved, society is based on meritocracy - equal chances to succeed Feminists - gender has more of an influence on life chances than class		
Do we still have different classes in society?	Yes - Marxists - still a divide between the working and middle classes Life chances are still poorer for the working class, low social mobility Devine - there is still a separate working class No - Functionalists - meritocracy, more w/c going to university etc. Embourgeoisement - the w/c may be becoming more middle class Less people may be working class due to changes in occupation		

### Social stratification and gender

	Policies to reduce inequality - Equal pay act (1970), Sex Discrimination Act (1975), Equality Act (2010)	
Does gender affect life chances?	Yes - Feminists - women have poorer life chances due to patriarchy Women less likely to be CEOs, to be paid a high wage, face a glass ceiling, pay gap still exists No - Functionalists - society is based on meritocracy Improvements for women - more likely to attend University, pay gap has decreased, women have a higher life expectancy	
Reasons why	Glass ceiling/patriarchy in the workplace Gender socialisation - women may take expressive role/lower paid careers	

### Factors affecting life chances

Life chances	Life expectancy, income, wealth, employment, education, housing, health
Class	Education: W/C - poorer GCSE grades Income: W/C - earn less, minimum wage Housing: W/C - rented, poor quality Life expectancy: W/C - lower, poorer health
Gender	Education: Girls outperform boys Employment: Women lower paid, less income/wealth, less likely to be in top jobs Life expectancy: Women live longer
Ethnicity	Employment: 20% of black Caribbean men unemployed Employment: 4% of CEOs are BAME Education: Poorer GCSEs among some BAME groups and less likely to go to University
Age	Youth - lower income, higher unemployed Older age - more at risk of poverty, ageism in the workplace, poorer access to health services

Other factors - Disability, Sexuality, Religion/beliefs

### Social stratification and ethnicity

Policies to reduce inequality - Race relations act (1976), Equality act (2010)

Does ethnicity affect life chances?	Yes - 4% of CEOs are BAME, some groups have lower life expectancy, glass ceiling/lower paid jobs, poorer GCSE grades No - Laws/policies have reduced inequality, some BAME groups more likely to go to University, differences among groups
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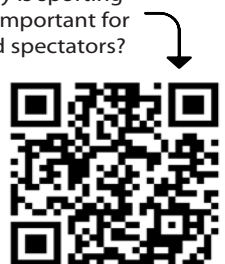
### Social mobility

Yes More w/c go to University, achievement is increasing, functionalists- achieved status / meritocracy, statistics may not be accurate	No UK - one of lowest rates of mobility, top jobs more likely to be privately educated, only 35% think they have a fair chance, Marxists - inequality due to capitalism
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YEAR 11 CYCLE 2 SPORT STUDIES







Sport Studies Cycle 2 – R184: Contemporary Issues in Sport (EXAM)

Week 1	Week 2	Week 3	Week 4	Week 5
<p><b>User Groups:</b> The different groups of people who participate in sport and physical activity.</p> <p><b>Which user groups do I need to know?</b></p> <ol style="list-style-type: none"> <li>Gender.</li> <li>People from different ethnic groups.</li> <li>Retired people/people over 60.</li> <li>Families with children.</li> <li>Carers.</li> <li>People with family commitments.</li> <li>Young children.</li> <li>Teenagers.</li> <li>People with disabilities.</li> <li>Parents (singles or couples).</li> <li>People who work.</li> <li>Unemployed/economically disadvantaged people.</li> </ol> <p><b>Barriers:</b> Something that makes participation difficult and reduces access.</p> <p><b>Revision Tip: Remember barriers are a 'lack off... something!'</b></p> <p>Lack off...</p> <ol style="list-style-type: none"> <li>Disposable income.</li> <li>Transport.</li> <li>Positive sporting role models.</li> <li>Family support or role models.</li> <li>Appropriate activity provision.</li> <li>Awareness of activities.</li> <li>Media coverage (gender and ethnicity).</li> <li>Employment and unemployment.</li> <li>Family commitments.</li> </ol>	<p><b>Solutions to Barriers:</b></p> <ol style="list-style-type: none"> <li>Increase availability and appropriateness of transport.</li> <li>Improve access to facilities e.g. disability ramps.</li> <li>Appropriate pricing e.g. discounts or subsidised prices.</li> <li>Increase provision of activities.</li> <li>Have appropriate timing of sessions.</li> <li>Use targeted promotion e.g. social media.</li> <li>Use role models to promote.</li> <li>Use initiatives e.g. female only gyms.</li> </ol> <p><b>Factors Affecting Popularity of Sports:</b></p> <p><b>Revision Tip: Remember 'REPS &amp; MAPS'.</b></p> <p>Role models Environment/climate Participation Spectatorship Media coverage Acceptability Provision Success</p> <p><b>Emerging Sports:</b> New sports growing in popularity. For example, footgolf, walking football, pickleball and American Football.</p> <p><b>Traditional Sports:</b> Established sports that have a history of popularity. For example, football, cricket, netball and rugby.</p>	<p><b>Sporting Values:</b> National pride. Inclusion. Citizenship. Excellence.</p> <p>Fair play. Team spirit. Tolerance and respect.</p> <p><b>Revision Tip: Remember 'NICE FTT'.</b></p> <p><b>The Olympic Rings:</b> Five interlocking rings to represent unity and peace between all continents.</p>  <p><b>Olympic &amp; Paralympic Values:</b></p> <p><b>Revision Tip: Remember 'FRE &amp; DICE'.</b></p> <p><b>Olympic:</b> Friendship. Respect. Excellence.</p> <p><b>Paralympics:</b> Determination. Inclusion. Courage. Equality.</p>	<p><b>Initiative:</b> An idea to overcome a barrier.</p> <p><b>Campaign:</b> Use of media and advertising to address a barrier of problem.</p> <p><b>Examples of Initiatives &amp; Values Promoted:</b></p> <ul style="list-style-type: none"> <li>This Girl Can – Equality &amp; inclusion.</li> <li>Kick it Out – Inclusion &amp; tolerance and respect.</li> <li>Rainbow Laces – Equality &amp; tolerance and respect.</li> </ul> <p><b>Etiquette &amp; Sporting Behaviour:</b> <b>Etiquette:</b> Unwritten rules followed in sport.</p> <p><b>Example:</b> Being quite during another country's national anthem.</p> <p><b>Sportsmanship:</b> Playing to the rules and spirit of the game.</p> <p><b>Example:</b> Shaking hands after a game of hockey or rugby.</p> <p><b>Gamesmanship:</b> Bending the rules to gain an unfair advantage.</p> <p><b>Example:</b> Time wasting or slowing the play down in football.</p> <p><b>Video:</b> Why is sporting behaviour important for players and spectators?</p> 	<p><b>Performance Enhancing Drugs (PEDs):</b> Drugs which increase performance in sport and physical activity.</p> <p><b>Why take PEDs?</b></p> <ol style="list-style-type: none"> <li>Faster recovery.</li> <li>Increase performance.</li> <li>Pressure to win.</li> <li>Perception everyone else is taking them.</li> </ol> <p><b>Why not take PEDs?</b></p> <ol style="list-style-type: none"> <li>Damage to your reputation if caught.</li> <li>It is cheating – against the rules.</li> <li>Provides an unfair advantage.</li> <li>Long term health damage.</li> </ol> <p><b>World Anti-Doping Agency (WADA):</b> Organisation responsible for drug testing and monitoring in sport.</p> <p><b>Whereabouts Rule:</b> Athletes must inform WADA of their location, changes to training schedule for one hour every day so they can be randomly drug tested.</p> <p><b>Drugs Testing Samples:</b> Hair, nail, urine or blood.</p> <p><b>Sanctions:</b> Bans, fines, suspensions, removal of medals.</p> <p><b>Educational Initiatives:</b></p> <ol style="list-style-type: none"> <li>100% Me</li> <li>Clean Sport Week</li> <li>Future Performers</li> </ol>

**Throughout Cycle:** R185: Topic Area 1 - Continue to add to your logbooks for your practical sports (date, position, league/comp, details of what you did).

YEAR 11 CYCLE 2 SPORT STUDIES

Sport Studies Cycle 2 – R184: Contemporary Issues in Sport (EXAM)

Week 6	Week 7	Week 8	Week 9	Week 10
<p><b>Types of Major Sporting Events:</b>  <b>Regular:</b> Happens at set intervals e.g. once a year but in different locations.  <b>Example:</b> UEFA Champions League Final.  <b>One-off:</b> Once in a generation events.  <b>Example:</b> The Olympics or FIFA World Cup.  <b>Regular &amp; Recurring:</b> Happens in the same place every year.  <b>Example:</b> Wimbledon (Tennis) or the British Grand Prix held at Silverstone.</p>  <p><b>Nature of Major Sporting Events:</b>  They are international:  1. Involves participants and spectators from different countries.  2. Attracts media attention from across the world.</p> 	<p><b>Advantages &amp; Disadvantages of Hosting an Event:</b>  <b>Before: Advantages</b>  1. Bidding for the event draws attention to your country.  2. Infrastructure and transport can be improved.  3. More investment from sponsors.  4. Creates jobs.  <b>Before: Disadvantages</b>  1. Bidding is expensive and you might not win.  2. Infrastructure is expensive to build.  3. Country's residents may protest about the event locally and nationally.  4. New jobs are temporary.  <b>During: Advantages</b>  1. Increased direct and indirect tourism.  2. Increased national status, if run well (shop window effect).  3. Increased coverage of sport.  <b>Before: Disadvantages</b>  1. Increased risk of terrorism and crime.  2. Benefits may be local and not impact whole country.  3. Increased traffic.  <b>After: Advantages</b>  1. New sporting facilities.  2. Increased participation.  3. Increased international status.  <b>Before: Disadvantages</b>  1. Facilities can be abandoned.  2. National status can decrease.  3. May lose money.</p>	<p><b>National Governing Body (NGB):</b>  The organisation responsible for organising a sport in a country.</p> <p><b>Examples of NGBs:</b>  1. The FA – Football.  2. The RFU – Rugby.  3. Badminton England.  4. Basketball England.  5. Volleyball England.  6. British Canoeing.</p> <p><b>What is the role of an NGB?</b>  1. Promote participation.  2. Develop and train coaches and referees.  3. Organise tournaments and competitions.  4. Create rules and apply disciplinary procedures.  5. Ensure safety within their sport.  6. Provide support, insurance and guidance to members.  7. Lobby for funding.</p> <p><b>Video:</b> The role of national governing bodies in sport.</p> 	<p><b>Role of Technology in Sport:</b>  1. To enhance performance.  2. To increase the safety of participants.  3. To increase fair play and the accuracy of officiating.  4. To enhance spectatorship.</p>  <p><b>Examples:</b>  1. GPS tracking to monitor how are players work.  2. Use of PolarTec and Gore-Tex in skiing clothing to keep you warm and dry.  3. Use of a Video Assistant Referee (VAR) in football.  4. Use of a Television Match Official (TMO) in rugby.  5. Use of goal-line technology in football.  6. Use of Hawk-Eye in tennis.  7. Different viewing options of Sky Sports to watch as a fan.</p>  	<p><b>Positive Effects of Technology:</b>  1. Enhanced performance.  2. Lower risk of injury.  3. Quicker recover from injury.  4. More accurate decision making from officials.  5. Provides technical analysis of performance.</p> <p><b>Negative Effects of Technology:</b>  1. Unequal access to the same quality of technology.  2. Increased cost of technological advances.  3. Availability and affordability of technology is not equal.  4. Can reduce the flow of the game.  5. Officials' decisions can be influenced by technology.</p> <p><b>Positive Effects of Technology for Spectators:</b>  1. Increased understanding of what is happening.  2. Can stay up to date with 24/7 coverage.  3. Makes sport more fair.  4. Can watch from more angles.</p> <p><b>Negative Effects of Technology for Spectators:</b>  1. Can slow the speed of the game down.  2. Technology can make the game less exciting.  3. Belief that high levels of performance are caused by technology not talent.  4. Changes the nature of sport, refereeing decisions should not be made from a screen.</p>

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