

Nottingham Girls' Academy



REVISION TOPIC GUIDE 2022-2023



Introduction

Maths

English

Trilogy Science

History

Geography

Spanish

Sociology

Health and Social Care

Creative I Media

Catering

OCR sport Science

Business Studies

Computer Science

Art

Introduction

- **This has been designed to help you organise what you need to revise/work on/recap**
- **All your subjects are in one place to help you keep everything together.**
- **Use your subject hints/topic list everything you need to know for the subject you are revising for.**

**Tick it off/highlight when you are confident you have improved!
This will improve your confidence**

- **Use the pages of the subject your revising for to think about HOW you are going to revise/learn (eg practise paper, times questions, Kahoot, flashcards etc)**
- **Stick any PLCs your teachers give you to the back of the relevant page**
- **Look at mock feedback progress sheet or talk you teachers about what you need to do to improve.**

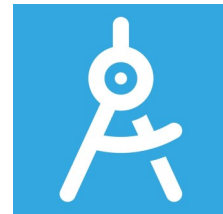
• We are all here to help!!!

• This is to help you organise yourself for your GCSE

Maths

MATHS REVISION TIPS

Getting good at mathematics is like getting good at any sport or artistic endeavour. You need to practise over and over again for skills to become embedded and reach a level of competency – just like shooting in netball, playing a guitar riff, drawing a lifelike animal or finding missing angles in circles.



The traditional pre-exam period of revision is not a sufficiently long stretch of time for most students to reach the required fluency, especially when you add in the pressures of multiple subjects. Combining this with what we understand from cognitive science and Ebbinghaus' forgetting curve – which reminds us that we need to revisit what we learn periodically in order to remember it long-term – and we can see that maths revision needs to start sooner if it is to be truly effective.

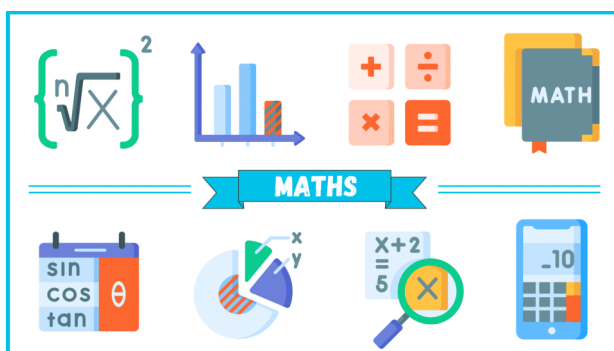
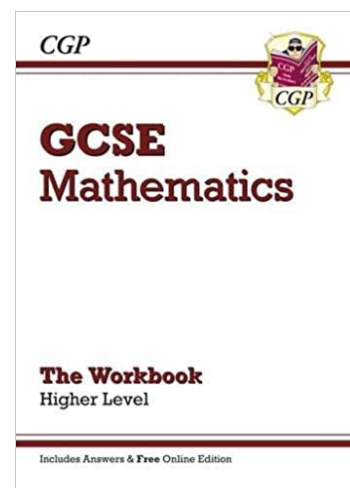
Here are a few simple things you can do:

Little and often is the way forward. Fifteen minutes on one topic three or four times a week is not remotely onerous and is hugely beneficial. Why not try using a website like Corbett Maths that feature comprehensive revision lists and questions to work through. Perhaps try his 5-a-day worksheets?

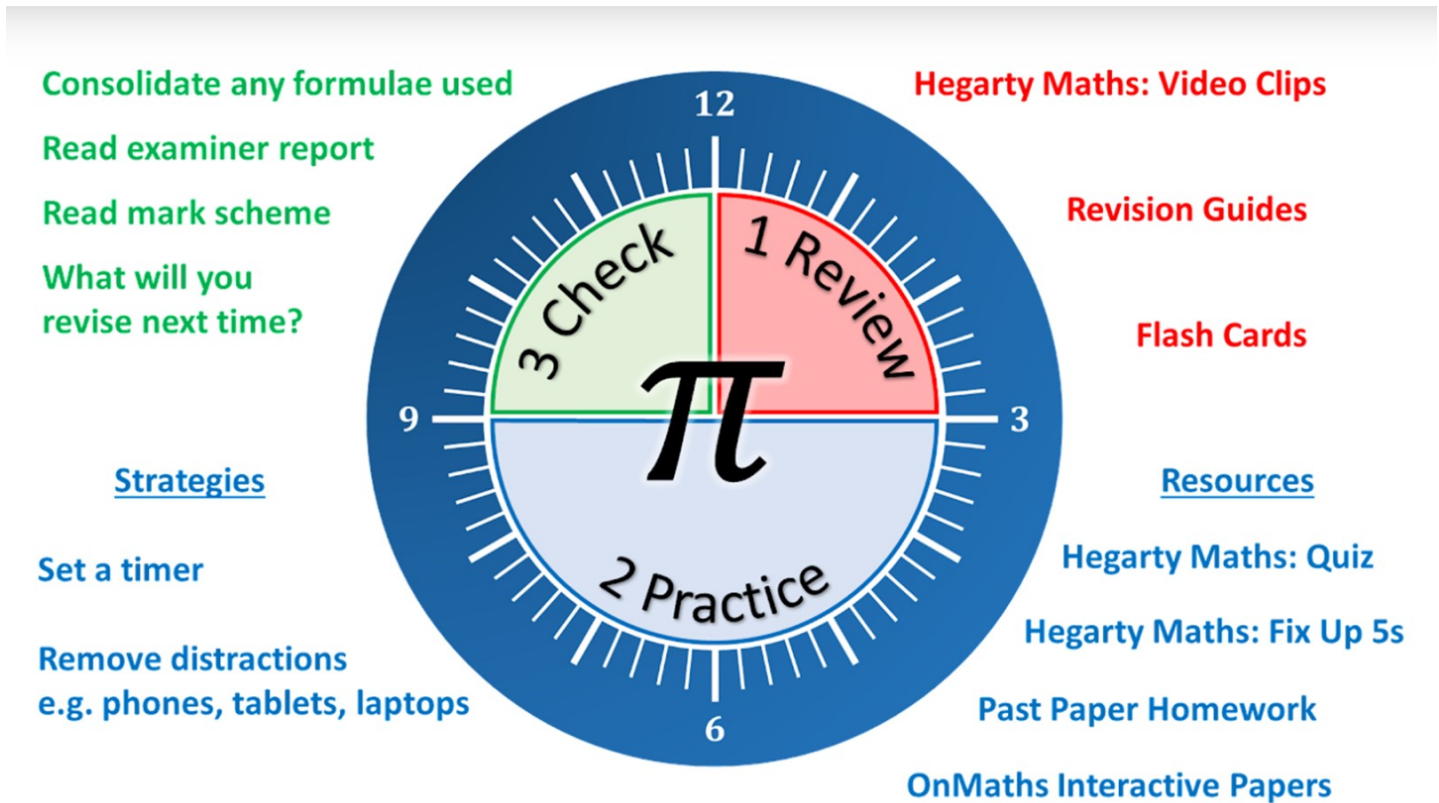
Practise questions, don't just read notes or watch videos. You only get good at maths by doing maths. Hegarty Maths provides videos to help revise, but apply this learning by completing the tasks too!

Make a list of the topics you've revised. Tick them off if you can do them without a problem. Make a note to return to them if you aren't secure yet. Every now and then, return to your secure topics to make sure you haven't forgotten them.

As the exams get closer, gradually increase your revision time. By the time you are in full revision mode, you should be doing at least four hours of maths a week (including your weekends), and the more the better.



Maths



This amazing online resource combines almost 1,000 step-by-step explanatory videos with quizzes.

See your teacher for log-in details or a password reset.

Top Tip 1: If you are struggling with one of the quizzes, make sure you watch the video in full or try out the building blocks recommended underneath.

Top Tip 2: If you are not sure what to revise, try the Fix Up 5 to improve an area you've struggled on previously.

English

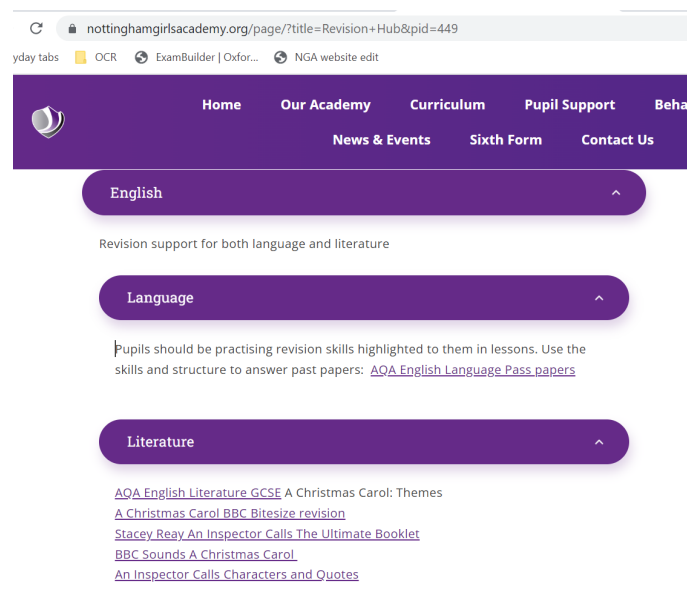
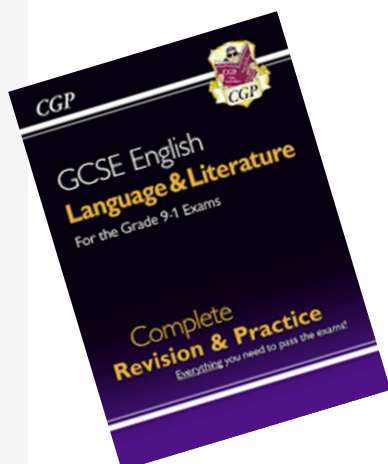
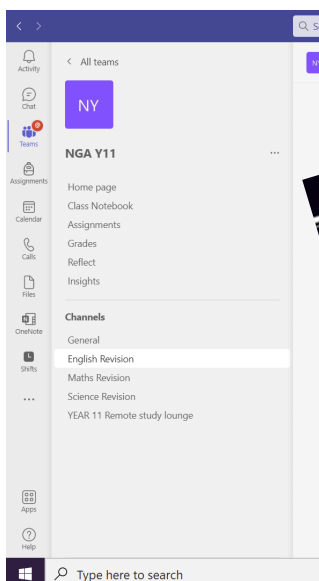
1. Reading modern fiction (novel and short stories).

2. Reading newspaper articles.

3. Practice past papers – on Teams

4. Using CGP English Language Work Book,(see Ms Simpson) to practise skills for English Language.

5. Do the activities posted on the English Teams Channel.



Trilogy Science Biology

Personalised Learning Checklists AQA TRILOGY Biology Paper 1



AQA TRILOGY Biology (8464) from 2016 Topic T4.1 Cell biology				
Topic	Student Checklist	R	A	G
4.1.1 Cell structure	Use the terms 'eukaryotic' and 'prokaryotic' to describe types of cells			
	Describe the features of bacterial (prokaryotic) cells			
	Demonstrate an understanding of the scale and size of cells and be able to make order of magnitude calculations, inc standard form			
	Recall the structures found in animal and plant (eukaryotic) cells inc algal cells			
	Use estimations and explain when they should be used to judge the relative size or area of sub-cellular structures			
	<i>Required practical 1: use a light microscope to observe, draw and label a selection of plant and animal cells</i>			
	Describe the functions of the structures in animal and plant (eukaryotic) cells			
	Describe what a specialised cell is, including examples for plants and animals			
	Describe what differentiation is, including differences between animals and plants			
	Define the terms magnification and resolution			
	Compare electron and light microscopes in terms of their magnification and resolution			
	Carry out calculations involving magnification using the formula: magnification = size of image / size of real object -inc standard form			
	<i>Required practical 2: investigate the effect of antiseptics or antibiotics on bacterial growth using agar plates and measuring zones of inhibition</i>			
4.1.2 Cell Division	Describe how genetic information is stored in the nucleus of a cell (inc genes & chromosomes)			
	Describe the processes that happen during the cell cycle, including mitosis (inc recognise and describe where mitosis occurs)			
	Describe stem cells, including sources of stem cells in plants and animals and their roles			
	Describe the use of stem cells in the production of plant clones and therapeutic cloning			
	Discuss the potential risks, benefits and issues with using stem cells in medical research/treatments (inc diabetes and paralysis)			
4.1.3 Transport in cells	Describe the process of diffusion, including examples			
	Explain how diffusion is affected by different factors			
	Define and explain "surface area to volume ratio", and how this relates to single-celled and multicellular organisms (inc calculations)			
	Explain how the effectiveness of an exchange surface can be increased, inc examples of adaptations for small intestines, lungs, gills roots & leaves			
	Describe the process of osmosis (inc calculation of water uptake & percentage gain and loss of mass of plant tissue)			
	<i>Required practical 3: investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue</i>			
	Describe the process of active transport, including examples - gut and roots			
	Explain the differences between diffusion, osmosis and active transport			

Trilogy Science

Biology

AQA TRILOGY Biology (8464) from 2016 Topic T4.2 Organisation				
Topic	Student Checklist	R	A	G
4.2.1 Principles of organisation & 4.2.2 Animal tissues, organs and systems	Describe the levels of organisation within living organisms			
	Describe the digestive system and how it works as an organ system (from KS3)			
	Describe basic features of enzymes (inc rate calculations for chemical reactions)			
	Describe the lock and key theory as a model of enzyme action and explain how the shape a of the ac-			
	Explain the effect of temperature and pH on enzymes			
	Describe the digestive enzymes, including their names, sites of production and actions			
	Describe how the products of digestion are used			
	Describe the features and functions of bile and state where it is produced and released from			
	<i>Required practical 4: use qualitative reagents to test for a range of carbohydrates, lipids and proteins</i>			
	<i>Required practical 5: investigate the effect of pH on the rate of reaction of amylase enzyme</i>			
	Describe the structure of the human heart and lungs (inc how lungs are adapted for gaseous exchange)			
	Explain how the heart moves blood around the body (inc role and position of the aorta, vena cava, pulmonary artery & vein and coronary arteries)			
	Explain how the natural resting heart rate is controlled and how irregularities can be corrected			
	Describe the structure and function of arteries, veins and capillaries			
	Use simple compound measures such as rate and carry out rate calculations for blood flow			
	Describe blood and identify its different components, inc identifying blood cells from photographs/diagrams			
	Describe the functions of blood components, including adaptations to function			
	Describe what happens in coronary heart disease and what statins are used for			
	Describe and evaluate treatments for coronary heart disease and heart failure (inc drugs, mechanical devices or transplant)			
	Recall that heart valves can become faulty and describe the consequences of this			
4.2.3 Plant tissues, organs and systems	Describe how patients can be treated in the case of heart failure			
	Describe health and the explain causes of ill-health and the relationship between health and disease			
	Describe how different types of diseases may interact and translate disease incidence information be-			
	Describe what risk factors are and give examples discussing human and financial costs of non-			
	Describe what cancer is and explain the difference between benign and malignant tumours			
	Describe the known risk factors for cancer, including genetic and lifestyle risk factors			
	Describe plant tissues (epidermal, palisade mesophyll, spongy mesophyll, xylem, phloem and meristem) and describe their functions			
	Explain how the structure of plant tissues are related to their function within the leaf (plant organ) inc stomata and guard cells			
	Recall the plant parts that form a plant organ system that transports substances around the plant			
	Explain how root hair cells, xylem and phloem are adapted to their functions			
	Describe the process of transpiration and translocation including the role of the different plant tissues			
	Explain how the rate of transpiration can be affected by different factors (inc naming the factors)			
	Describe the role of stomata and guard cells in the control of gas exchange and water loss			

Trilogy Science

Biology

AQA TRILOGY Biology (8464) from 2016 Topic T4.3 Infection and response				
Topic	Student Checklist	R	A	G
4.3.1 Communicable diseases	Explain what a pathogen is and how pathogens are spread (inc how viruses, bacteria, protists and fungi are spread in animals and plants)			
	Explain how pathogenic bacteria and viruses cause damage in the body			
	Explain how the spread of diseases can be reduced or prevented			
	Describe measles, HIV and tobacco mosaic virus as examples of viral pathogens			
	Describe salmonella food poisoning and gonorrhoea as examples of bacterial pathogens			
	Describe the signs, transmission and treatment of rose black spot infection in plants as an example of			
	Describe the symptoms, transmission and control of malaria, including knowledge of the mosquito			
	Describe defences that stop pathogens entering the human body (inc skin, nose, trachea & windpipe, stomach)			
	Recall the role of the immune system			
	Describe how white blood cells destroy pathogens			
	Describe how vaccination works, including at the population level			
	Explain how antibiotics and painkillers are used to treat diseases, including their limitations			
	Describe how sources for drugs have changed over time and give some examples			
	Describe how new drugs are tested, including pre-clinical testing and clinical trials (inc double blind trials and placebos)			

Science Check list

Recap lessons on Teams

make formula recap flash cards

Use pass paper questions on above topics then R
A G colour your confidence on the topic.

Use all online platforms to help such as
Pixl, Cognito and GCSEPod

Trilogy Science

Biology

AQA TRILOGY Biology (8464) from 2016 Topic T4.5 Homeostasis and response				
Top-	Student Checklist	R	A	G
4.5.1 Ho- meo- stasi s	Describe what homeostasis is and why it is important stating specific examples from the human body			
	Describe the common features of all control systems			
4.5.2 The hu- man nerv ous sys-	State the function of the nervous system and name its important components			
	Describe how information passes through the nervous system			
	Describe what happens in a reflex action and why reflex actions are important			
	Explain how features of the nervous system are adapted to their function, including a reflex arc (inc all types of neurone and the synapse)			
	<i>Required practical 7: plan and carry out an investigation into the effect of a factor on human reaction time</i>			
4.5.3 Hor- mon al co- ordi nati on in hu- man s	Describe the endocrine system, including the location of the pituitary, pancreas, thyroid, adrenal gland,			
	State that blood glucose concentration is monitored and controlled by the pancreas			
	Describe the body's response when blood glucose concentration is too high			
	Explain what type 1 and type 2 diabetes are and how they are treated			
	HT ONLY: Describe the body's response when blood glucose concentration is too low			
	HT ONLY: Explain how glucagon interacts with insulin to control blood glucose levels in the body			
	Describe how water, ions and urea are lost from the body			
	Describe the consequences of losing or gaining too much water for body cells			
	HT ONLY: Recall that protein digestion leads to excess amino acids inside the body and describe what			
	Describe how the kidneys produce urine			
	HT ONLY: Describe the effect of ADH on the permeability of the kidney tubules and explain how the			
	Describe how kidney failure can be treated by organ transplant or dialysis and recall the basic principles			
	Describe what happens at puberty in males and females, inc knowledge of reproductive hormones			
	Describe the roles of the hormones involved in the menstrual cycle (FSH, LH and oestrogen)			
	HT ONLY: Explain how the different hormones interact to control the menstrual cycle and ovulation			
	Describe how fertility can be controlled by hormonal and non-hormonal methods of contraception			
	HT ONLY: Explain how hormones are used to treat infertility, inc the steps in IVF			
	HT ONLY: Evaluate the risks and benefits of fertility treatments			
	HT ONLY: Describe the functions of adrenaline and thyroxine in the body, and recall where they are			
	HT ONLY: Explain the roles of thyroxine and adrenaline in the body as negative feedback systems			
4. 5. 4 Pl a nt h or m o n	<i>Required practical 8: investigate the effect of light or gravity on the growth of newly germinated seedling</i>			
	HT ONLY: Explain the use of plant growth hormones are used in agriculture and horticulture (auxins, ethene and gibberellins)			

Trilogy Science

Biology

AQA TRILOGY Biology (8464) from 2016 Topic T4.6 Inheritance, variation and evolution				
Top-	Student Checklist	R	A	G
4.6.1 Re- prod uctio n	Describe features of sexual and asexual reproduction			
	Describe what happens during meiosis and compare to mitosis			
	Describe what happens at fertilization			
	Describe the structure of DNA and its role in storing genetic information inside the cell			
	Explain the term 'genome' and the importance of the human genome (specific examples from spec only)			
	Describe how characteristics are controlled by one or more genes, including examples			
	Explain important genetic terms: gamete, chromosome, gene, allele, genotype, phenotype, dominant,			
	Explain and use Punnet square diagrams, genetic crosses and family trees			
	HT ONLY: Construct Punnet square diagrams to predict the outcomes of a monohybrid cross			
	Describe cystic fibrosis and polydactyly as examples of inherited disorders			
	Evaluate social, economic and ethical issues concerning embryo screening when given appropriate infor-			
	Describe how the chromosomes are arranged in human body cells, including the function of the sex			
4.6.2 Vari- atio n and evo- lutio n	Explain how sex is determined and carry out a genetic cross to show sex inheritance			
	Describe what variation is and how it can be caused within a population			
	Describe mutations and explain their influence on phenotype and changes in a species			
	Explain the theory of evolution by natural selection			
	Describe how new species can be formed			
	Describe what selective breeding is			
	Explain the process of selective breeding, including examples of desired characteristics and risks associat-			
	Describe what genetic engineering is, including examples, and how it is carried out			
	Explain some benefits, risks and concerns related to genetic engineering			
4.6.3 The de- velo pme nt of un- ders tand ing of ge- netic s and evo- lutio	HT ONLY: Explain the process of genetic engineering, to include knowledge of enzymes and vectors			
	Describe some sources of evidence for evolution			
	Describe what fossils are, how they are formed and what we can learn from them			
	Explain why there are few traces of the early life forms, and the consequences of this in terms of our understanding of how life began			
	Describe some of the causes of extinction			
	Describe how antibiotic-resistant strains of bacteria can arise and spread (inc MRSA)			
	Describe how the emergence of antibiotic-resistant bacteria can be reduced and controlled, to include the limitations of antibiotic development			
4.6.4 Clas- sific atio n	Describe how organisms are named and classified in the Linnaean system			
	Describe and interpret evolutionary trees			
	Explain how scientific advances have led to the proposal of new models of classification, inc three-			

Trilogy Science

Biology

AQA TRILOGY Biology (8464) from 2016 Topic T4.7 Ecology				
Topic	Student Checklist	R	A	G
4.7.1 Adaptations, interdependence and competition	Recall what an ecosystem is			
	Describe which resources animals and plants compete for, and why they do this			
	Explain the terms 'interdependence' and 'stable community'			
	Name some abiotic and biotic factors that affect communities			
	Explain how a change in an abiotic or biotic factor might affect a community			
	Describe structural, behavioural and functional adaptations of organisms			
	Describe what an extremophile is			
4.7.2 Organisation of an ecosystem	Represent the feeding relationships within a community using a food chain and describe these relationships			
	Explain how and why ecologists use quadrats and transects			
	Describe and interpret predator-prey cycles			
	<i>Required practical 9: measure the population size of a common species in a habitat. Use sampling to</i>			
	Describe the processes involved in the carbon cycle			
	Describe the processes involved in the water cycle			
4.7.3 Biodiversity and the effect of human interaction on ecosystems	Describe what biodiversity is, why it is important, and how human activities affect it			
	Describe the impact of human population growth and increased living standards on resource use and			
	Explain how pollution can occur, and the impacts of pollution			
	Describe how humans reduce the amount of land available for other animals and plants			
	Explain the consequences of peat bog destruction			
	Describe what deforestation is and why it has occurred in tropical areas			
	Explain the consequences of deforestation			
	Describe how the composition of the atmosphere is changing, and the impact of this on global warming			
	Describe some biological consequences of global warming			
	Describe both positive and negative human interactions in an ecosystem and explain their impact on			
	Describe programmes that aim to reduce the negative effects of humans on ecosystems and biodiversity			

Trilogy Science Chemistry

AQA TRILOGY Chemistry (8464) from 2016 Topics T5.6 The rate and extent of chemical change				
Top-	Student Checklist	R	A	G
5.6.1 Rate of reaction	Calculate the rate of a chemical reaction over time, using either the quantity of reactant used or the quan-			
	Draw and interpret graphs showing the quantity of product formed or reactant used up against time and			
	HT ONLY: Calculate the gradient of a tangent to the curve on the graph of the quantity of product			
	Describe how different factors affect the rate of a chemical reaction, including the concentration, pressure, surface area, temperature and presence of catalysts			
	Required practical 11: investigate how changes in concentration affect the rates of reactions by a method			
	Use collision theory to explain changes in the rate of reaction, including discussing activation energy			
	Describe the role of a catalyst in a chemical reaction and state that enzymes are catalysts in biological sys-			
	Draw and interpret reaction profiles for catalysed reactions			
5.6.2 Re- versi- ble reac- tions and dy- nam- ic equil- ibriu	Explain what a reversible reaction is, including how the direction can be changed and represent it using symbols: $A + B \rightleftharpoons C + D$			
	Explain that, for reversible reactions, if a reaction is endothermic in one direction, it is exothermic in the other direction			
	Describe the State of dynamic equilibrium of a reaction as the point when the forward and reverse reactions occur at exactly the same rate			
	HT ONLY: Explain that the position of equilibrium depends on the conditions of the reaction and the equilibrium will change to counteract any changes to conditions			
	HT ONLY: Explain and predict the effect of a change in concentration of reactants or products, temperature, or pressure of gases on the equilibrium position of a reaction			

AQA TRILOGY Chemistry (8464) from 2016 Topics T5.7 Organic chemistry				
Topic	Student Checklist	R	A	G
5.7.1 Car- bon com- pound s as fuels and feed- stock	Describe what crude oil is and where it comes from, including the basic composition of crude oil and			
	State the names of the first four members of the alkanes and recognise substances as alkanes from			
	Describe the process of fractional distillation, state the names and uses of fuels that are produced			
	Describe trends in the properties of hydrocarbons, including boiling point, viscosity and flammability			
	Describe and write balanced chemical equations for the complete combustion of hydrocarbon fuels			
	Describe the process of cracking and state that the products of cracking include alkanes and alkenes			
	Balance chemical equations as examples of cracking when given the formulae of the reactants and			
	Explain why cracking is useful and why modern life depends on the uses of hydrocarbons			

Trilogy Science

Chemistry

AQA TRILOGY Chemistry (8464) from 2016 Topics T5.8 Chemical analysis				
Topic	Student Checklist	R	A	G
5.8.1 Purity, formulations and chromatograph & 5.8.2 ID of	Define a pure substance and identify pure substances and mixtures from data about melting and boiling points			
	Describe a formulation and identify formulations given appropriate information			
	Describe chromatography, including the terms stationary phase and mobile phase and identify pure substances using paper chromatography			
	Explain what the R _f value of a compound represents, how the R _f value differs in different solvents and interpret and determine R _f values from chromatograms			
	<i>Required practical 12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances (inc calculation of R_f values)</i>			
	Explain how to test for the presence of hydrogen, oxygen, carbon dioxide and chlorine			

AQA Chemistry (8462) from 2016 Topics C4.9 Chemistry of the atmosphere				
Topic	Student Checklist	R	A	G
4.9.1 The composition and evolution of the Earth's atmosphere	Describe the composition of gases in the Earth's atmosphere using percentages, fractions or ratios			
	Describe how early intense volcanic activity may have helped form the early atmosphere and how the oceans formed			
	Explain why the levels of carbon dioxide in the atmosphere changes as the oceans were formed			
	State the approximate time in Earth's history when algae started producing oxygen and describe the effects of a gradually increasing oxygen level			
	Explain the ways that atmospheric carbon dioxide levels decreased			

Trilogy Science

Chemistry

4.9.2 Carbon dioxide and methane as greenhouse	Name some greenhouse gases and describe how they cause an increase in Earth's temperature			
	List some human activities that produce greenhouse gases			
	Evaluate arguments for and against the idea that human activities cause a rise in temperature that results in global climate change			
	State some potential side effects of global climate change, including discussing scale, risk and environmental implications			
	Define the term carbon footprint and list some actions that could reduce the carbon footprint			
4.9.3 Common atmospheric pollutants and their sources	Describe the combustion of fuels as a major source of atmospheric pollutants and name the different gases that are released when a fuel is burned			
	Predict the products of combustion of a fuel given appropriate information about the composition of the fuel and the conditions in which it is used			
	Describe the properties and effects of carbon monoxide, sulfur dioxide and particulates in the atmosphere			
	Describe and explain the problems caused by increased amounts of these pollutants in the air			

Trilogy Science

Chemistry

AQA Chemistry (8462) from 2016 Topics C4.10 Using resources				
Topic	Student Checklist	R	A	G
4.10.1 Using the Earth's resources and obtaining potable water	State what humans use Earth's resources for, give some examples of natural resources that they use			
	Define the term finite and distinguish between finite and renewable resources			
	Explain what sustainable development is and discuss the role chemistry plays in sustainable development, including improving agricultural and in-			
	State examples of natural products that are supplemented or replaced by agricultural and synthetic products			
	Discuss the importance of water quality for human life, including defining potable water			
	Describe methods to produce potable water, including desalination of salty water or sea water and the potential problems of desalination			
	Required practical 13: analysis and purification of water samples from different sources, including pH, dissolved solids and distillation.			
	Describe waste water as a product of urban lifestyles and industrial processes that includes organic matter, harmful microbes and harmful chemi-			
	Describe the process of sewage treatment and compare the ease of obtaining potable water from waste water as opposed to ground or salt wa-			
	HT ONLY: Name and describe alternative biological methods for extracting metals, including phytomining and bioleaching			
	HT ONLY: Evaluate alternative methods for extracting metals			
4.10.2 Life cycle assessment and recycling	Describe, carry out and interpret a simple comparative life cycle assessment (LCA) of materials or products			
	Discuss the advantages and disadvantages of LCAs			
	Carry out simple comparative LCAs for shopping bags made from plastic and paper			
	Discuss how to reduce the consumption of raw resources and explain how reusing and recycling reduces energy use (inc environmental impacts)			

Trilogy Science

Physic

AQA TRILOGY Physics (8464) from 2016 Topics T6.1. Energy				
Topic	Student Checklist	R	A	G
6.1.1 Energy changes in a system, and the ways energy is stored before and after such changes	Define a system as an object or group of objects and state examples of changes in the			
	Describe how all the energy changes involved in an energy transfer and calculate relative changes in energy when the heat, work done or flow of charge in a system			
	Use calculations to show on a common scale how energy in a system is redistributed			
	Calculate the kinetic energy of an object by recalling and applying the equation: $[E_k =$			
	Calculate the amount of elastic potential energy stored in a stretched spring by apply-			
	Calculate the amount of gravitational potential energy gained by an object raised			
	Calculate the amount of energy stored in or released from a system as its tempera-			
	Define the term 'specific heat capacity'			
	Required practical 14: investigation to determine the specific heat capacity of one or			
	Define power as the rate at which energy is transferred or the rate at which work is			
	Calculate power by recalling and applying the equations: $[P = E/t \text{ \& } P = W/t]$			
	Explain, using examples, how two systems transferring the same amount of energy			
6.1.2 Conser- vation and dis- sipation of ener- gy	State that energy can be transferred usefully, stored or dissipated, but cannot be			
	Explain that only some of the energy in a system is usefully transferred, with the rest			
	Explain ways of reducing unwanted energy transfers and the relationship between			
	Describe how the rate of cooling of a building is affected by the thickness and ther-			
	Calculate efficiency by recalling and applying the equation: $[\text{efficiency} = \text{useful power}$			
	HT ONLY: Suggest and explain ways to increase the efficiency of an intended energy transfer			
6.1.3 National and global energy re- sources	List the main renewable and non-renewable energy resources and define what a			
	Compare ways that different energy resources are used, including uses in transport,			
	Explain why some energy resources are more reliable than others, explaining			
	Evaluate the use of different energy resources, taking into account any ethical and			
	Justify the use of energy resources, with reference to both environmental issues and			

Trilogy Science

Physics

AQA TRILOGY Physics (8464) from 2016 Topics T6.2. Electricity				
Topic	Student Checklist	R	A	G
6.2.1 Current, potential difference and resistance	Draw and interpret circuit diagrams, including all common circuit symbols			
	Define electric current as the rate of flow of electrical charge around a closed circuit			
	Calculate charge and current by recalling and applying the formula: $[Q = It]$			
	Explain that current is caused by a source of potential difference and it has the same value at any point in a single closed loop of a circuit			
	Describe and apply the idea that the greater the resistance of a component, the smaller the current for a given potential difference (p.d.) across the component			
	Calculate current, potential difference or resistance by recalling and applying the equation: $[V = IR]$			
	Required practical 15: Use circuit diagrams to set up and check circuits to investigate the factors affecting the resistance of electrical circuits			
	Define an ohmic conductor			
	Explain the resistance of components such as lamps, diodes, thermistors and LDRs and sketch/interpret IV graphs of their characteristic electrical behaviour			
	Explain how to measure the resistance of a component by drawing an appropriate circuit diagram using correct circuit symbols			
	Required practical 16: use circuit diagrams to construct appropriate circuits to investigate the			
6.2.2 Series and parallel circuits	Show by calculation and explanation that components in series have the same current passing through them			
	Show by calculation and explanation that components connected in parallel have the same the potential difference across each of them			
	Calculate the total resistance of two components in series as the sum of the resistance of each component using the equation: $[R_{total} = R_1 + R_2]$			
	Explain qualitatively why adding resistors in series increases the total resistance whilst adding resistors in parallel decreases the total resistance			
	Solve problems for circuits which include resistors in series using the concept of equivalent			
6.2.3 Domestic uses and safety	Explain the difference between direct and alternating voltage and current, stating what UK mains is			
	Identify and describe the function of each wire in a three-core cable connected to the mains			
	State that the potential difference between the live wire and earth (0 V) is about 230 V and that both neutral wires and our bodies are at, or close to, earth potential (0 V)			
	Explain that a live wire may be dangerous even when a switch in the mains circuit is open by			
6.2.4 Energy transfers	Explain how the power transfer in any circuit device is related to the potential difference across it and the current through it			
	Calculate power by recalling and applying the equations: $[P = VI]$ and $[P = I^2 R]$			
	Describe how appliances transfer energy to the kinetic energy of motors or the thermal energy of heating devices			
	Calculate and explain the amount of energy transferred by electrical work by recalling and applying the equations: $[E = Pt]$ and $[E = QV]$			
	Explain how the power of a circuit device is related to the potential difference across it, the current through it and the energy transferred over a given time.			
	Describe, with examples, the relationship between the power ratings for domestic electrical appliances and the changes in stored energy when they are in use			
	Identify the National Grid as a system of cables and transformers linking power stations to consumers			
	Explain why the National Grid system is an efficient way to transfer energy, with reference to change in potential difference reducing current			

Trilogy Science

Physics

AQA TRILOGY Physics (8464) from 2016 Topics T6.3. Particle model of matter				
TOPIC	Student Checklist	R	A	G
6.3.1 Changes of state and the particle model	Calculate the density of a material by recalling and applying the equation: $[\rho = m/V]$			
	Recognise/draw simple diagrams to model the difference between solids, liquids and gases			
	Use the particle model to explain the properties of different states of matter and differences in			
	Required practical 17: use appropriate apparatus to make and record the measurements needed to determine the densities of regular and irregular solid objects and liquids			
	Recall and describe the names of the processes by which substances change state			
	Use the particle model to explain why a change of state is reversible and affects the properties of a substance, but not its mass			
6.3.2 Internal energy and energy transfers	State that the internal energy of a system is stored in the atoms and molecules that make up			
	Explain that internal energy is the total kinetic energy and potential energy of all the particles in			
	Calculate the change in thermal energy by applying but not recalling the equation $[\Delta E = m c \Delta \theta]$			
	Calculate the specific latent heat of fusion/vaporisation by applying, but not recalling, the equa-			
	Interpret and draw heating and cooling graphs that include changes of state			
	Distinguish between specific heat capacity and specific latent heat			
6.3.3 Particle model and pressure	Explain why the molecules of a gas are in constant random motion and that the higher the tem-			
	Explain, with reference to the particle model, the effect of changing the temperature of a gas			
	Calculate the change in the pressure of a gas or the volume of a gas (a fixed mass held at constant temperature) when either the pressure or volume is increased or decreased			

AQA TRILOGY Physics (8464) from 2016 Topics T6.4. Atomic structure				
TOPIC	Student Checklist	R	A	G
6.4.1 Atoms and isotopes	Describe the basic structure of an atom and how the distance of the charged particles vary with the ab-			
	Define electrons, neutrons, protons, isotopes and ions			
	Relate differences between isotopes to differences in conventional representations of their identities,			
	Describe how the atomic model has changed over time due to new experimental evidence, inc discovery			
6.4.2 Atoms and nuclear radiation	Describe and apply the idea that the activity of a radioactive source is the rate at which its unstable nuclei			
	Describe the penetration through materials, the range in air and the ionising power for alpha particles,			
	Apply knowledge of the uses of radiation to evaluate the best sources of radiation to use in a given situa-			
	Use the names and symbols of common nuclei and particles to complete balanced nuclear equations, by			
	Define half-life of a radioactive isotope			
	HT ONLY: Determine the half-life of a radioactive isotope from given information and calculate the net			
	Compare the hazards associated with contamination and irradiation and outline suitable precautions tak-			
	Discuss the importance of publishing the findings of studies into the effects of radiation on humans and			

Trilogy Science

Physics

AQA TRILOGY Physics (8464) from 2016 Topics T6.5. Forces				
Topic	Student Checklist	R	A	G
6.5.1 Forces and their interactions	Identify and describe scalar quantities and vector quantities			
	Identify and give examples of forces as contact or non-contact forces			
	Describe the interaction between two objects and the force produced on each as a vector			
	Describe weight and explain that its magnitude at a point depends on the gravitational field strength			
	Calculate weight by recalling and using the equation: $[W = mg]$			
	Represent the weight of an object as acting at a single point which is referred to as the object's 'centre of mass'			
	Calculate the resultant of two forces that act in a straight line			
	HT ONLY: describe examples of the forces acting on an isolated object or system			
	HT ONLY: Use free body diagrams to qualitatively describe examples where several forces act on an object and explain how that leads to a single resultant force or no force			
	HT ONLY: Use free body diagrams and accurate vector diagrams to scale, to resolve multiple forces and show magnitude and direction of the resultant			
	HT ONLY: Use vector diagrams to illustrate resolution of forces, equilibrium situations and determine the resultant of two forces, to include both magnitude and direction			
6.5.2 Work done and energy trans	Describe energy transfers involved when work is done and calculate the work done by recalling and using the equation: $[W = Fs]$			
	Describe what a joule is and state what the joule is derived from			
	Convert between newton-metres and joules.			
	Explain why work done against the frictional forces acting on an object causes a rise in the temperature of the object			
6.5.3 Forces and elasticity	Describe examples of the forces involved in stretching, bending or compressing an object			
	Explain why, to change the shape of an object (by stretching, bending or compressing), more than one force has to be applied – this is limited to stationary objects only			
	Describe the difference between elastic deformation and inelastic deformation caused by stretching forces			
	Describe the extension of an elastic object below the limit of proportionality and calculate it by recalling and applying the equation: $[F = ke]$			
	Explain why a change in the shape of an object only happens when more than one force is applied			
	Describe and interpret data from an investigation to explain possible causes of a linear and non-linear relationship between force and extension			
	Calculate work done in stretching (or compressing) a spring (up to the limit of proportionality) by applying, but not recalling, the equation: $[E_e = \frac{1}{2}ke^2]$			
	Required practical 18: investigate the relationship between force and extension for a spring.			

Trilogy Science

Physics

4.5.4 Forces and motion	Define distance and displacement and explain why they are scalar or vector quantities			
	Express a displacement in terms of both the magnitude and direction			
	Explain that the speed at which a person can walk, run or cycle depends on a number of factors and recall some typical speeds for walking, running, cycling			
	Make measurements of distance and time and then calculate speeds of objects in calculating average speed for non-uniform motion			
	Explain why the speed of wind and of sound through air varies and calculate speed by recalling and applying the equation: $[s = vt]$			
	Explain the vector-scalar distinction as it applies to displacement, distance, velocity and speed			
	HT ONLY: Explain qualitatively, with examples, that motion in a circle involves constant speed but changing velocity			
	Represent an object moving along a straight line using a distance-time graph, describing its motion and calculating its speed from the graph's gradient			
	Draw distance-time graphs from measurements and extract and interpret lines and slopes of distance-time graphs,			
	Describe an object which is slowing down as having a negative acceleration and estimate the magnitude of everyday accelerations			
	Calculate the average acceleration of an object by recalling and applying the equation: $[a = \Delta v/t]$			
	Represent motion using velocity-time graphs, finding the acceleration from its gradient and distance travelled from the area underneath			
	HT ONLY: Interpret enclosed areas in velocity-time graphs to determine distance travelled (or displacement)			
	HT ONLY: Measure, when appropriate, the area under a velocity-time graph by counting square			
	Apply, but not recall, the equation: $[v^2 - u^2 = 2as]$			
	Explain the motion of an object moving with a uniform velocity and identify that forces must be in effect if its velocity is changing, by stating and applying Newton's First Law			
	Define and apply Newton's second law relating to the acceleration of an object			
	Recall and apply the equation: $[F = ma]$			
	HT ONLY: Describe what inertia is and give a definition			
	Estimate the speed, accelerations and forces of large vehicles involved in everyday road transport			
	Required practical 19: investigate the effect of varying the force on the acceleration of an object of constant mass, and the effect of varying the mass of an object on the acceleration			
	Apply Newton's Third Law to examples of equilibrium situations			
	Describe factors that can affect a driver's reaction time			
	Explain methods used to measure human reaction times and recall typical results			
	Interpret and evaluate measurements from simple methods to measure the different reaction times of students			
	Evaluate the effect of various factors on thinking distance based on given data			
	State typical reaction times and describe how reaction time (and therefore stopping distance) can be affected by different factors			
	Explain methods used to measure human reaction times and take, interpret and evaluate measurements of the reaction times of students			
	Explain how the braking distance of a vehicle can be affected by different factors, including implications for road safety			
	Explain how a braking force applied to the wheel does work to reduce the vehicle's kinetic energy and increases the temperature of the brakes			
	Explain and apply the idea that a greater braking force causes a larger deceleration and explain how this might be dangerous for drivers			
	HT ONLY: Estimate the forces involved in the deceleration of road vehicles			

Trilogy Science

Physics

4.5.5 Mo- ment um	HT ONLY: Calculate momentum by recalling and applying the equation: $[p = mv]$			
	HT ONLY: Explain and apply the idea that, in a closed system, the total momentum before an			
	HT ONLY: Describe examples of momentum in a collision			

AQA TRILOGY Physics (8464) from 2016 Topics T6.6. Waves				
Topic	Student Checklist	R	A	G
6.6.1 Wave s in air, fluids and solids	Describe waves as either transverse or longitudinal, defining these waves in terms of the direc-			
	Define waves as transfers of energy from one place to another, carrying information			
	Define amplitude, wavelength, frequency, period and wave speed and Identify them where			
	State examples of methods of measuring wave speeds in different media and Identify the suit-			
	Calculate wave speed, frequency or wavelength by applying, but not recalling, the equation: $[v = f\lambda]$ and calculate wave period by recalling and applying the equation: $[T = 1/f]$			
	Identify amplitude and wavelength from given diagrams			
	Describe a method to measure the speed of sound waves in air			
	Describe a method to measure the speed of ripples on a water surface			
	Required practical 20: make observations to identify the suitability of apparatus to measure the frequency, wavelength and speed of waves in a ripple tank and waves in a solid			

6.6.2 Elec- trom agne tic wave s	Describe what electromagnetic waves are and explain how they are grouped			
	List the groups of electromagnetic waves in order of wavelength			
	Explain that because our eyes only detect a limited range of electromagnetic waves, they can			
	HT ONLY: Explain how different wavelengths of electromagnetic radiation are reflected, refracted, absorbed or transmitted differently by different substances and types of surface			
	Illustrate the refraction of a wave at the boundary between two different media by con-			
	HT ONLY: Describe what refraction is due to and illustrate this using wave front diagrams			
	Required practical activity 10: investigate how the amount of infrared radiation absorbed or			
	HT ONLY: Explain how radio waves can be produced by oscillations in electrical circuits, or			
	Explain that changes in atoms and the nuclei of atoms can result in electromagnetic waves			
	State examples of the dangers of each group of electromagnetic radiation and discuss the			
	State examples of the uses of each group of electromagnetic radiation, explaining why each			

Combined Science

Physics

AQA TRILOGY Physics (8464) from 2016 Topics T6.7. Magnetism and electromagnetism				
TOPIC	Student Checklist	R	A	G
6.7.1 Per- manent and in- duced mag- netism, magnetic forces and	Describe the attraction and repulsion between unlike and like poles of permanent magnets and explain the difference between permanent and induced mag-			
	Draw the magnetic field pattern of a bar magnet, showing how field strength			
	Explain how the behaviour of a magnetic compass is related to evidence that the			
	Describe how to plot the magnetic field pattern of a magnet using a compass			
6.7.2 The motor effect	State examples of how the magnetic effect of a current can be demonstrated and explain how a solenoid arrangement can increase the magnetic effect of the			
	Draw the magnetic field pattern for a straight wire carrying a current and for a			
	<i>PHY ONLY: Interpret diagrams of electromagnetic devices in order to explain</i>			
	HT ONLY: State and use Fleming's left-hand rule and explain what the size of			
	HT ONLY: Calculate the force on a conductor carrying a current at right angles			
	HT ONLY: Explain how rotation is caused in an electric motor			

History



GCSE History AQA
PLC Paper 1: Section A
Germany, 1890-1945: Democracy and dictatorship



Topic	I can explain...	Learning journey (class notes)	After learning challenge(s)	After Learning Journey
Part 1: Germany and the growth of democracy				
1. Kaiser Wilhelm and the difficulties of ruling Germany (before WW1)	Creation of a unified Germany (1871):			
	<ul style="list-style-type: none"> The growth of parliamentary government The influence of Prussian militarism in Germany 			
	Development of Germany			
2. Impact of the First World War	<ul style="list-style-type: none"> Industrialisation Social reform and the growth of socialism 			
	The domestic importance of the Navy Laws			
	War weariness and economic problems			
	The end of the monarchy – the rise of the Weimar Republic			
3. Weimar democracy	Attitudes towards defeat			
	Post-war problems	<ul style="list-style-type: none"> The issue of reparations Occupation of the Ruhr Hyperinflation 		
	Why there was political change and unrest, 1919-1923 (Uprisings)	<ul style="list-style-type: none"> Spartacists Kapp Putsch Red Rising in the Ruhr Munich Putsch 		
	The extent of recovery during the Stresemann era (1924-1929)	<ul style="list-style-type: none"> Introduction of a new currency 		
	International agreements:	<ul style="list-style-type: none"> Dawes Plan Young Plan Locarno Pact The impact of international agreements on recovery 		
Weimar culture – a golden age?				
Before Learning Journey: My target for this term		After Learning Journey: My target for next term		



GCSE History AQA
PLC Paper 1: Section A
Germany, 1890-1945: Democracy and dictatorship



Topic	I can explain...	Learning journey (class notes)	After learning challenge(s)	After Learning Journey
Part 3: The experiences of Germans under the Nazis				
1. Economic changes	<ul style="list-style-type: none"> Hitler's economic changes – increasing employment, rearmament, self-sufficiency Economic plans – New Plan and 4 Year Plan Successes and drawbacks 			
	<ul style="list-style-type: none"> the impact of war on the economy and the German people Bombing Rationing Labour shortages Refugees 			
2. Social policy and practice	<ul style="list-style-type: none"> Women Young people and youth groups control of churches and religion Aryan ideas, racial policy and persecution the Final Solution 	<ul style="list-style-type: none"> reasons for policies practices impact and success reasons for policies practices education impact 		
	<ul style="list-style-type: none"> Goebbels, the use of propaganda and censorship Nazi culture repression and the police state and the roles of Himmler, the SS and Gestapo 			
	<ul style="list-style-type: none"> opposition and resistance 	<ul style="list-style-type: none"> White Rose group Swing Youth Edelweiss Pirates July 1944 bomb plot 		
Before Learning Journey: My target for this term		After Learning Journey: My target for next term		



GCSE History AQA
PLC Paper 1: Section A
Germany, 1890-1945: Democracy and dictatorship



Topic	I can explain...	Learning journey (class notes)	After learning challenge(s)	After Learning Journey
Part 2: Germany and the Depression				
1. The impact of the Depression - rise of the Nazi party	<ul style="list-style-type: none"> Reasons for the growth in support for the Nazis and other extremist parties (1928-1932) 	<ul style="list-style-type: none"> The Wall Street Crash - rise in unemployment; unhappiness with the Weimar government Hitler's appeal (his aims/beliefs; his leadership skills) Nazi party tactics (including their organisation, propaganda and promises) Fear of communism and the role of the SA 		
	<ul style="list-style-type: none"> Election results after 1928 – Who voted for the Nazis? Why? Hitler's appointment as Chancellor – the role of Papen and Hindenburg. 			
3. The establishment of Hitler's dictatorship	1933	<ul style="list-style-type: none"> the Reichstag Fire the Enabling Act elimination of political opposition elimination of trade unions 		
	1934	<ul style="list-style-type: none"> Rohm and the Night of the Long Knives Death of Hindenburg - Hitler becomes Führer 		
Before Learning Journey: My target for this term		After Learning Journey: My target for next term		

History



GCSE History AQA PLC Paper 1: Section B Conflict and Tension: 1918-1939



Topic	I can explain...	Learning Journey (class notes)	After learning challenge(s)	After Learning Journey
Part 1: Peacemaking				
1. The Armistice	• The aims of the peacemakers	• Wilson and his 14-point plan		
		• Clemenceau and his want to 'cripple' Germany		
		• Lloyd George and the aims of the British Empire		
2. The Versailles Settlement	• The extent to which the peacemakers achieved their aims	• Territorial terms: land lost by Germany (Land)		
		• Military restrictions placed on Germany (Army)		
		• Payment of reparations to the allied countries (Money)		
3. Impact of the Treaty and wider settlement	• Reaction and satisfaction of the Allies regarding the Treaty	• Article 231: the War Guilt clause (Blame)		

Before Learning Journey: My target for this term

After Learning Journey: My target for next term



GCSE History AQA PLC Paper 1: Section B Conflict and Tension: 1918-1939



Topic	I can explain...	Learning Journey (class notes)	After learning challenge(s)	After Learning Journey
Part 3: The origins and outbreak of the Second World War				
1. The development of tension	• Hitler's aims	• Allied response to Hitler		
		• The Quilley Affair		
		• The Saar		
		• The Stresa Front		
		• Hitler's actions (1933-1935)		
2. Escalation of tension	• Remilitarisation of the Rhineland	• Rearmament (and conscription)		
		• Anglo-German Naval Agreement		
3. The outbreak of war	• The end of appeasement	• the occupation of Czechoslovakia		
		• the role of the USSR and the Nazi-Soviet Pact		
		• the invasion of Poland and outbreak of war, September 1939		
		• responsibility for the outbreak of war, including that of key individuals: Hitler, Stalin and Chamberlain		

Before Learning Journey: My target for this term

After Learning Journey: My target for next term



GCSE History AQA PLC Paper 1: Section B Conflict and Tension: 1918-1939



Topic	I can explain...	Learning Journey (class notes)	After learning challenge(s)	After Learning Journey
Part 2: The League of Nations and international peace				
1. The League of Nations	• its formation and covenant			
	• organisation			
	• membership and how it changed			
	• the powers of the League			
	• the work of the League's agencies			
	• the contribution of the League to peace in the 1920s	• Successes		
2. Diplomacy outside the League	• Locarno Treaties (1925)	• Failures		
	• Kellogg-Briand Pact (1928)			
3. The collapse of the League	• the effects of the Depression			
	• the Manchurian crisis – causes and consequences			
	• Abyssinian crisis – causes and consequences			
	• the failure of the League to avert war in 1930s			

Before Learning Journey: My target for this term

After Learning Journey: My target for next term

History



GCSE History AQA
PLC Paper 2: Section A
Migration, Empires and the people: 790 CE to Present day



Topic	I can explain...	Before Learning Journey	Learning challenge (mark)	After Learning Journey
Part 1: Conquered and Conquers				
1. Early Britain	• Introduction to the course			
	• Early Britons and the Viking invasion			
	• Alfred and the Danelaw			
2. Impact of the Norman invasion and the expansion of the Empire	• Cnut and the North Sea Empire Pt 1- Aethelred and Emma of Normandy			
	• Cnut and the North Sea Empire Pt2 - Emma of Normandy and Cnut			
	• How did the Normans Govern England			
3. The Hundred years war and its impact on England	• Henry II and the Angevin Empire			
	• Why did the Angevin Empire collapse under King John?			
	• The Hundred Years war			
	• Legacy and significance of the war			

Before Learning Journey: My target for this term

After Learning Journey: My target for next term



GCSE History AQA
PLC Paper 2: Section A
Migration, Empires and the People



Topic	I can explain...	Learning journey (class notes)	Learning challenge (mark)	After Learning Journey
Part 2: Looking West				
1. Tudor and Stuart Exploration	• Why did the Tudors begin to explore?	• Cabot		
		• Colonisation		
		• Sir John Hawkins		
2. Colonisation of the Americas	• Why was Piracy replaced by Plantations			
	• The Impact of the Slave Trade on Britain			
	• British colonies in America			
3. Migration to and from Britain	• The Importance of Sir Walter Raleigh			
	• 13 colonies			
	• British Colonies in the Americas			
	• Impact of Native Americans			
	- Case studies: Massachusetts and James town			
	• How Does Walt Disney show the effect of colonisation			
	• Why did America want independence?			
	• What was the impact of the American war of Independence			
	• The First 'Refugee's: The Huguenots migration			
	• Scotland and Ireland	• Highland clearances		
		• Ulster plantations		

Before Learning Journey: My target for this term

After Learning Journey: My target for next term



GCSE History AQA
PLC Paper 2: Section A
Empires, Migration and the People: 790CE to Present day



Topic	I can explain...	Learning Journey (class notes)	After learning challenge(s)	After Learning Journey
Part 3: Expansion and empire				
1. Britain and India	• How did Britain gain control of India			
	• The Sepoy Uprising 1857			
	• The impact of empire on India and Britain			
2. Africa, Rhodes and the Empire	• Why did Britain join the Scramble for Africa?			
	• The impact of Rhodes: Should the statue of Rhodes be removed?			
	• Why did Britain get involved in Egypt?			
3. 19 th Century migration to Britain	• Why did Britain fight the Boer war?			
	- Impact of the Boer war on Africa and Britain			
	• What did The British think of their Empire?			
	• Why were the Irish forced to migrate?			
	• What was the impact of the Irish migration on the empire			
	• What was the impact of the Jewish Migration on Britain			
	• Why did some many people migrate in the 19 th C			

Before Learning Journey: My target for this term

After Learning Journey: My target for next term



GCSE History AQA
PLC Paper 2: Section A
Health and the People: c1000 to the present day




Topic	I can explain...	Learning journey (class notes)	After learning challenge(s)	After Learning Journey
Part 4: Britain in the 20th and 21st Century				
1. Impact of the Wars	• Weakening of the Empire	- Impact of WW1		
		- Impact of WW2		
	• Post WW migration			
2. Windrush and their impact	• Modern diseases and treatments including alternative treatments			
	• Current healthcare issues including antibiotic resistance			
	• The Windrush Generation			
3. legacy of empire and Modern Britain	• Impact and reaction to the Windrush Generation			
	• Impact of the Falklands War			
	• Britain and its relationship with Europe			
	• Migration in Europe			
	• Immigration to the UK			


Before Learning Journey: My target for this term

After Learning Journey: My target for next term

History




GCSE History AQA
PLC Paper 2: Section B
Elizabethan England c.1568-1603




Topic	I can explain...	Learning journey (class notes)	After learning challenge	After Learning Journey
Part 1: Elizabeth's Court and Parliament				
1. Elizabeth I and her Court	• The background and character of Elizabeth I			
	• Court Life, including patronage			
	• Structure of Elizabethan government – Privy Council, Parliament, royal progresses, the Court			
	• Key ministers			
2. The difficulties of a female ruler	• Relations with Parliament			
	• The problem of marriage and the succession			
	• The strength of Elizabeth's authority at the end of her reign, including Essex's rebellion in 1601			

Before Learning Journey: My target for this term

After Learning Journey: My target for next term




GCSE History AQA
PLC Paper 2: Section B
Elizabethan England c.1568-1603




Topic	I can explain...	Learning journey (class notes)	After learning challenge	After Learning Journey
Part 2: Life in Elizabethan Times				
1. A 'Golden Age'	• Social structure, living standards and fashions			
	• Growing prosperity and the rise of the gentry (including changes to architecture, music, & art)			
	• The Elizabethan theatre and its achievements			
	• Attitudes to the theatre			
2. The poor	• Reasons for the increase in poverty			
	• Attitudes and responses to poverty			
	• The reasons for government action and the seriousness of the problem.			
3. English Sailors	• Hawkins and Drake			
	• Circumnavigation 1577-1580, voyages and trade			
	• The role of Raleigh			

Before Learning Journey: My target for this term

After Learning Journey: My target for next term




GCSE History AQA
PLC Paper 2: Section B
Elizabethan England c.1568-1603




Topic	I can explain...	Learning journey (class notes)	After learning challenge	After Learning Journey
Part 3: Trouble at home and abroad				
1. Religious matters	• Elizabethan religious settlement			
	• The Northern Rebellion			
	• Elizabeth's excommunication			
	• Catholic plots and the threat to the Elizabethan settlement including missionaries (Jesuits)			
	• The nature, ideas and threat of the Puritans and Puritanism			
	• Elizabeth and her government's responses and policies towards religious matters			
2. Mary Queen of Scots	• Her background			
	• Elizabeth and Parliament's treatment of Mary			
	• The challenge posed by Mary (including the Ridolfi Plot; Throckmorton Plot; Babington Plot)			
	• Execution and its impact			
3. Conflict with Spain	• reasons for			
	• events during			
	• Naval warfare, including tactics and technology			
	• The defeat of the Spanish Armada			

Before Learning Journey: My target for this term

After Learning Journey: My target for next term



GCSE History AQA
PLC Paper 2: Section B
Elizabethan England c.1568-1603



Topic	I can explain...	Learning journey (class notes)	After learning challenge	After Learning Journey
Part 4: Historic Environment				
Lord Burghley's Almshouses	• Location			
	• Function			
	• The structure			
	• People connected with the site:			
	• Design			
	• How the design reflects the culture, values, fashions of the people at the time			
	• How the key features of the site have changed or stayed the same from earlier periods			

Before Learning Journey: My target for this term

After Learning Journey: My target for next term

History

History

AQA GCSE HISTORY

What I will be examined on

Paper 1: Understanding the modern world	Paper 2: Shaping the nation
How it's assessed <ul style="list-style-type: none"> • Written exam: 2 hours • 84 marks (including 4 marks for SPaG and specialist terminology) • 50 % of GCSE 	How it's assessed <ul style="list-style-type: none"> • Written exam: 2 hours • 84 marks (including 4 marks for SPaG and specialist terminology) • 50 % of GCSE
<p style="text-align: center;"><u>Section A</u> <u>Germany, 1890-1945: Democracy and dictatorship</u></p> <p>6 Questions</p> <p>40 marks</p> <p>Topics to revise: Germany and the growth of democracy including: Kaiser Wilhelm; Impacts of WW1; Weimar Republic Germany and the depression including: impacts of; failure of Weimar Republic; establishment of Hitler's dictatorship The experiences of Germans under the Nazis including: the economy, women, youth and racial policy See PLC for more specific detail</p>	<p style="text-align: center;"><u>Section A</u> <u>Britain: Migration, empires and the people, c790 to the present day</u></p> <p>4 Questions</p> <p>40 marks (+ 4 SPaG)</p> <p>Topics to revise: Conquered and conquerors including: invasion of Vikings and Anglo-Saxons; King Alfred; King Cnut and North Sea Empire Looking West including: piracy and profiteering; development and impact of the slave trade; colonisation in North America; Migration to/from Britain Expansion and Empire including: expansion in India; expansion in Africa; further migration to/from Britain Britain in the 20th Century including: End of Empire; legacy of Empire; Britain's relationship with Europe. See PLC for more specific detail</p>
<p style="text-align: center;"><u>Section B</u> <u>Conflict and Tension: the inter-war years, 1918-1939</u></p> <p>4 Questions</p> <p>40 marks (+ 4 SPaG)</p> <p>Topics to revise: Peace making including: Aims of the Peacemakers; terms of Treaty of Versailles (ToV); impact of the ToV The League of Nations including: its formation, actions (successes and failures) and its collapse Origins and outbreak of WW2 including: Development of tensions (Hitler's first steps to rearmament); escalation of tensions; outbreak of war See PLC for more specific detail</p>	<p style="text-align: center;"><u>Section B</u> <u>Elizabethan England, c1568-1603</u></p> <p>4 Questions</p> <p>40 marks</p> <p>Topics to revise: Elizabeth's court and Parliament including: life at court; the difficulties of a female ruler; strength of Elizabeth's reign Life in Elizabethan times including: prosperity and achievements; poverty; exploration Troubles at home and abroad including: Religious conflict; Mary Queen of Scots; Conflict with Spain Historic Environment – Sheffield Manor See PLC for more specific detail</p>

History

Helpful revision sources

CGP Revision guide

All students have been given a revision guide to use

A range of retrieval and activity booklets including:

- key knowledge questions and answer (for pupils to self-test),
- Question banks – covering the topics and different question styles (that encourage the application of knowledge)

SENECA – <https://senecalearning.com/en-GB/>

Overview knowledge questions – that can be tested and retested

GCSE Pod – <https://www.gcsepod.com/>

Helpful short videos linked specifically to the AQA History topics

Tutor 2u – <https://www.tutor2u.net/history>

Has both free and subscription resources, to help with knowledge AND exam technique

YouTube

Has a range of videos covering content and exam technique. Search for:

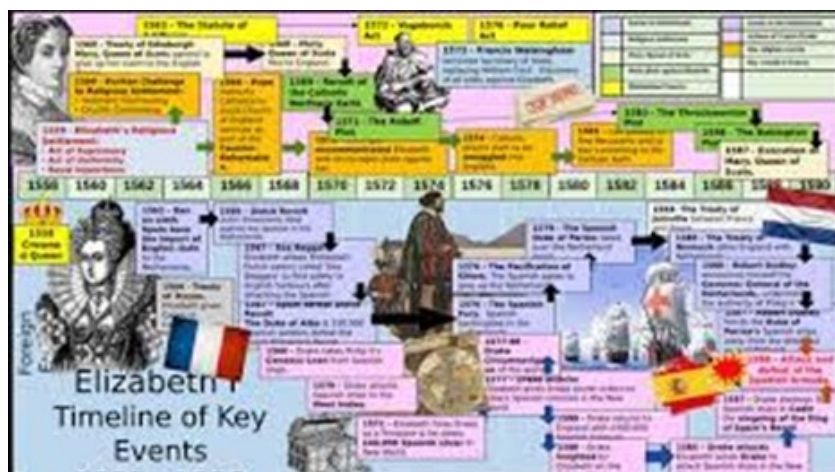
‘AQA GCSE history (+topic)’

e.g., AQA GCSE history Treaty of Versailles

Podcasts (freely accessible):

‘You’re dead to me’ - by Greg Jenner (who wrote Horrible Histories). It covers all the GCSE subjects with some key figures and events in detail. Available on BBC sounds

‘The rest is history’ - by Dominic Sandbrook and Tom Holland. Again, it covers our GCSE in a bit more depth and key figures and events. Available on Apple, Acast and other podcast providers



Geography

Paper 1: Living with the physical environment Section A: The challenge of natural hazards				Learning Journey: CLASS NOTES	Learning Consolidation: RE-VISION NOTES	Learning Challenge: Exam Question /9 + SPaG
Natural hazards - introduction						
Definition of a natural hazard.						
Types of natural hazard.						
Tectonic hazards						
Describe and explain the distribution of earthquakes and volcanoes						
Plate tectonics theory						
The physical processes taking place at different types of plate margins (constructive,						
The effects of and responses to a tectonic hazard vary between areas of contrasting						
Primary and secondary effects of a tectonic hazard.						
Immediate and long-term responses to a tectonic hazard.						
Case study of an earthquake in an LIC						
Case study of an earthquake in an HIC						
Comparison and evaluation of the levels of impacts and effectiveness of responses						
Explain why people choose to live in tectonically active areas						
Describe and explain how countries are reducing the risk of tectonic hazards by						
Weather hazards						
General atmospheric circulation model: pressure belts and surface winds.						
Global distribution of tropical storms (hurricanes, cyclones, typhoons).						
An understanding of the relationship between tropical storms and general atmospheric circulation.						
Cause of tropical storms and the sequence of their formation and development.						
The structure and features of a tropical storm						
How climate change might affect the distribution, frequency and intensity of tropi-						
Tropical storms have significant effects on people and the environment.						
Primary and secondary effects of tropical storms.						
Immediate and long-term responses to a tropical storm.						
Use named example of a tropical storm to show its effects and responses.						
How monitoring, prediction, protection and planning can reduce the effects of trop-						

Geography

Extreme weather in the UK			
Overview of types of weather hazard experienced in the UK.			
One example of a recent extreme weather event in the UK to illustrate: <ul style="list-style-type: none"> causes social, economic and environmental impacts how management strategies can reduce risk 			
Evidence that weather is becoming more extreme in the UK.			
Climate change			
Evidence for climate change from the beginning of the Quaternary period to the present day.			
Possible causes of climate change:			
Natural factors: orbital changes, volcanic activity and solar output.			
Human factors: use of fossil fuels, agriculture and deforestation			
Overview of the effects of climate change on people and the environment.			
Managing climate change: <p>mitigation – alternative energy production, carbon capture, planting trees, international agreements</p> <p>adaptation – change in agricultural systems, managing water supply, reducing risk from rising sea levels.</p>			
Prior Knowledge: Unit Learning Consolidation: Economic World Retrieval Booklet			
Current Content Unit Learning Challenge: Assessment _____ % Grade: _____			

Geography

Paper 1: Living with the physical environment Section B: Living World (Ecosystems, Biomes, Tropical Rainforests and Hot Deserts)				Learning Journey: CLASS NOTES	Learning Consolidation: RE-VISION NOTES	Learning Challenge: Exam Question /9 + SPaG
Ecosystems - introduction						
Define what an ecosystem is and know their key components						
Describe and Explain how changes to an ecosystem can have a knock on effect on its features, food chains and food webs						
Describe and explain the distribution of global biomes						
Describe explain and characteristics of biomes						
One example of a small-scale UK ecosystem, to illustrate the concept of inter-relationships within a natural system, an understanding of producers, consumers, decomposers, food chain, food web and nutrient cycle.						
Tropical rainforests						
The physical characteristics of a tropical rainforest.						
The interdependence of climate, water, soils, plants, animals and people.						
Describe and explain how plants and animals adapt to the physical environment						
Issues related to biodiversity.						
Changing rates of deforestation.						
A case study of a tropical rainforest to illustrate: causes of deforestation – subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population						
A case study of a tropical rainforest to illustrate: impacts of deforestation - economic development, soil erosion, loss of biodiversity, contribution to climate change.						
Value of tropical rainforests to people and the environment						
Strategies used to manage the rainforest sustainably: selective logging and replanting conservation and education ecotourism and international agreements about the use of tropical hardwoods debt reduction.						
Evaluation of these strategies						
Hot deserts						
The physical characteristics of a hot desert.						
The interdependence of climate, water, soils, plants, animals and people.						
Describe and Explain how plants and animals adapt to the physical conditions.						
Issues related to biodiversity.						

Geography

<p>A case study of a hot desert to illustrate:</p> <p>development opportunities in hot desert environments: mineral extraction, energy, farming, tourism</p> <p>challenges of developing hot desert environments: extreme temperatures, water supply, inaccessibility.</p>			
<p>Causes of desertification:</p> <p>climate change population growth removal of fuel wood overgrazing over-cultivation and soil erosion.</p> <p>Strategies used to reduce the risk of desertification:</p> <ul style="list-style-type: none"> • water and soil management, 			
<p>Prior Knowledge: Unit Learning Consolidation: Urban Retrieval Booklet</p>			
<p>Current Content Unit Learning Challenge: Assessment _____ % Grade: _____</p>			

Geography

Paper 2: Challenges in the human environment Section A: Urban issues and challenges	Learning Journey: CLASS NOTES	Learning Consolidation: RE-VISION NOTES	Learning Challenge: Exam Question /9 +SP aG
A growing percentage of the world's population lives in urban areas			
Describe and explain the global pattern of urban change			
Describe urban trends in different parts of the world comparing HICs and LICs.			
Describe and explain factors affecting the rate of urbanisation – migration (push–pull theory), natural increase.			
Describe the emergence of megacities.			
Urban growth creates opportunities and challenges for cities in LICs and NEEs			
A case study of a major city in an LIC or NEE:			
Describe the location and explain the importance of the city, regionally, nationally and internationally			
Describe and explain the causes of growth: natural increase and migration			
Explain how urban growth has created opportunities: <ul style="list-style-type: none"> • social: access to services – health and education; access to resources – water supply, energy • economic: how urban industrial areas can be a stimulus for economic development 			
Explain how urban growth has created challenges: <ul style="list-style-type: none"> • managing urban growth – slums, squatter settlements • providing clean water, sanitation systems and energy • providing access to services such as health and education • reducing unemployment and crime • managing environmental issues – waste disposal, air and water pollution, traffic congestion. 			
Using an example describe and explain how urban planning is improving the quality of life for the urban poor.			
Urban change in cities in the UK leads to a variety of social, economic and environmental opportunities and challenges.			
Describe the distribution of population and the major cities in the UK.			
A case study of a major city in the UK:			
• describe the location and explain the importance of the city in the UK and the wider world.			

Geography

Describe and explain and assess how urban change has created opportunities: social and economic: cultural mix, recreation and entertainment, employment, integrated transport systems, environmental: urban greening			
Describe and explain and assess how urban change has created challenges: <ul style="list-style-type: none"> • social and economic: urban deprivation, inequalities in housing, • environmental: dereliction, building on brownfield and greenfield • the impact of urban sprawl on the rural-urban fringe, and the 			
Using an example of an urban regeneration project to describe, ex- <ul style="list-style-type: none"> • the reasons why the area needed regeneration • the main features of the project. 			
Urban sustainability requires management of resources and transport.			
Describe, explain and assess the features of sustainable urban living <ul style="list-style-type: none"> • water and energy conservation • waste recycling • creating green space. 			
Describe and explain how urban transport strategies are used to reduce traffic con-			
Prior Knowledge: Unit Learning Consolidation: River and Coasts Retrieval Booklet			
Current Content Unit Learning Challenge: Assessment _____% Grade: _____			

Geography

Paper 2: Challenges in the human environment Section B: The changing economic world	Learning Journey - CLASS NOTES	Learning Consolidation- REVISION NOTES	Learning Challenge: Exam Question /9 + SPaG
<i>There are global variations in economic development and quality of life.</i>			
Explain that there are different ways of classifying parts of the world according to their level of economic development and quality of life.			
Describe and explain the different economic and social measures of development: gross national income (GNI) per head, birth and death rates, infant mortality, life expectancy, people per doctor, literacy rates, access to safe water, Human Development Index (HDI).			
Explain the limitations of different measures of development			
Describe and explain the links between stages of the Demographic Transition Model and the level of development.			
Describe and explain the causes of uneven development: physical, economic and historical.			
Describe and explain the consequences of uneven development: health, wealth and migration.			
<i>Various strategies exist for reducing the global development gap.</i>			
Overview of the strategies used to reduce the development gap: <ul style="list-style-type: none"> • Investment • industrial development • tourism • aid • using intermediate technology • fair trade • debt relief • microfinance loans. 			
Using an example describe and explain how the growth of tourism in an LIC or NEE helps to reduce the development gap.			

Geography

<i>Some LICs and NEEs are experiencing rapid economic development which leads to significant social, environmental</i>			
Explain the location and importance of the country, regionally and globally			
Describe and explain the wider political, social, cultural and			
Outline explain the changing industrial structure of the country, the balance between different sectors of the economy and how manufacturing industry can stimulate			
Outline the role of transnational corporations (TNCs) in relation to industrial development. Explain and evaluate the advantages and disadvantages of TNC(s) to the host coun-			
Describe the changing political and trading relationships			
Describe international aid and the types of aid and explain			
Describe the environmental impacts of economic develop-			
Describe the effects of economic development on quality			

Geography

Major changes in the economy of the UK have affected, and will continue to affect, employment patterns and re-			
describe and explain the causes of economic change: de-industrialisation and decline of traditional industrial base,			
describe and explain reasons for moving towards a post-industrial economy: development of information technology, service industries, finance, research, science and busi-			
Describe the impacts of industry on the physical environment. Using an example explain how modern industrial development can be more environmentally sustainable			
Describe and explain the social and economic changes in the rural landscape in one area of population growth and one area of population decline			
Describe and explain the improvements and new developments in road and rail infrastructure, port and airport ca-			
Explain the north-south divide. Outline strategies used in an attempt to resolve regional differences			
Describe the place of the UK in the wider world. Describe and explain the links through trade, culture, transport, and electronic communication and the economic and political links looking specifically at the European Union (EU) and			
Prior Knowledge: Unit Learning Consolidation: Living World Retrieval			
Current Content Unit Learning Challenge: Assessment _____%			

Geography

Paper 2: Challenges in the human environment Section C: The challenge of resource management				Learning Journey: CLASS NOTES	Learning Consolidation: REVISION NOTES	Learning Challenge: Exam Question / 9 + SPaG
Food, water and energy are fundamental to human development.						
Describe and explain the significance of food, water and energy to economic and social well-being.						
Outline the global inequalities in the supply and consumption of resources.						
The changing demand and provision of resources in the UK create opportunities and challenges.						
Outline the resources in relation to the UK.						
Food: <ul style="list-style-type: none"> Describe and explain the growing demand for high-value food exports from low income countries and all-year demand for seasonal food and organic produce Explain the reasons for larger carbon footprints due to the increasing number of 'food miles' travelled, and moves towards local sourcing of food 						
Outline the resources in relation to the UK.						
Water: <ul style="list-style-type: none"> Describe and explain the changing demand for water Describe and explain water quality and pollution management Describe and explain matching supply and demand – areas of deficit and surplus Explain the need for transfer to maintain supplies. 						
Outline the resources in relation to the UK.						
Energy: <ul style="list-style-type: none"> Describe and explain the changing energy mix – reliance on fossil fuels, growing significance of renewables Describe and explain the reduced domestic supplies of coal, gas and oil Describe, explain and assess the economic and environmental issues associated 						

Geography

Water			
Key Idea - Demand for water resources is rising globally but supply can be insecure, which may lead to conflict.			
Describe and explain areas of surplus (security) and deficit (insecurity)			
Describe and explain reasons for increasing water consumption: economic develop-			
Describe and explain factors affecting water availability: climate, geology, pollu-			
Describe, explain and assess the impacts of water insecurity – waterborne disease and water pollution, food production, industrial output, potential for conflict where demand exceeds supply.			
Key Idea - Different strategies can be used to increase water supply.			
Outline the strategies used to increase water supply:			
• diverting supplies and increasing storage, dams and reservoirs, water transfers			
• use an example of a large scale water transfer scheme to show how its develop-			
Explain and discuss the moving towards a sustainable resource future using:			
• water conservation, groundwater management, recycling, 'grey' water			
• use an example of a local scheme in an LIC or NEE to describe and explain how			
Prior Knowledge: Unit Learning Consolidation: Ecosystems, Deserts, TRF retrieval Booklet			
Current Content Unit Learning Challenge: Assessment _____ % Grade: _____			

Spanish

Topics for Year 11 revision guide from your revision organiser

Theme 1: Identity and Culture.

Topics:

- Me, my family and friends
- Technology in everyday life
- Free time activities
- Customs and festivals in Spanish speaking countries



Theme 2: Local, National, International and Global areas of interest.

Topics:

- Home, town, neighbourhood and region
- Charity and voluntary work
- Healthy living
- The environment
- Poverty and homelessness
- Travel and tourism



Theme 3: Current and Future study and employment.

Topics:

- My studies
- Life at school
- Education post- 16
- Jobs, career choices and ambitions



All topic related vocabulary is in GCSE knowledge organiser, together with essential grammar.

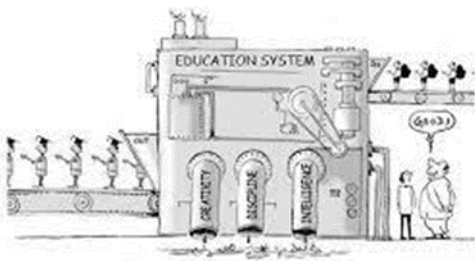


Sociology

key areas to revise: use PLC's and revision pages on One Note to support this

Social Stratification	Crime and Deviance
Revise Key definitions (highlighted in booklets)	Revise Key definitions (highlighted in booklets)
Theories- Functionism, Marxism, Feminism, interactionism	Theories- Functionism, Marxism, Feminism, interactionism, New Right
Key theorists- Davis and Moore, Devine, Weber, Murray, Townsend, Marx,	Key theorists- Becker, Carlen, Cohen, Heidensohn, Merton
Key themes- Life chances, distribution of power, links to class, gender and ethnicity	Key themes- Causes of crime, different forms of crime statistics, links to class, gender and ethnicity

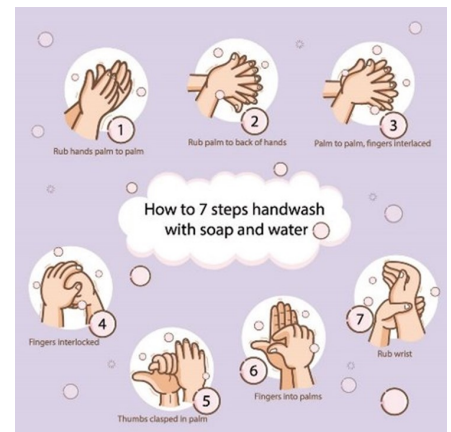
Families and Households	Education
Revise Key definitions (highlighted in booklets)	Revise Key definitions (highlighted in booklets)
Theories- Functionism, Marxism, Feminism, New Right	Theories- Functionism, Marxism, Feminism, interactionism
Key theorists- Rapoport and Rapoport, Oakley, Delphy and Leonard, Parsons, Young and Wilmott, Zaretsky	Key theorists- Ball, Ball Bowe and Gerwitz, Durkheim, Parsons, Bowles and Gintis, Willis, Halsey, Heath and Ridge
Key themes- Different family structures, marriage and divorce rates, links to class, gender and ethnicity	Key themes- Different school types, internal vs external factors, links to class, gender and ethnicity



Health & Social Care

Key areas to revise

Maintaining Rights LO1	Importance of Care Values LO2
Choice, Confidentiality, Protection from abuse and harm, Equal and Fair treatment, consultation	What are they? Where are they applied?
Why is it important – Impact of NOT applying	H&SC - Promoting equality and diversity. Maintaining confidentiality, promoting rights and beliefs
Complaints procedures	EY – Welfare paramount, keeping children safe, partnership families, encouraging learning, valuing diversity, equality of opportunity
Providing advocacy	Why are they important? Reflective practice, Effects on PIES if not applied



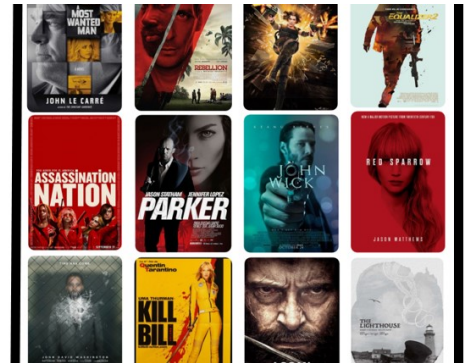
What does legislation do? LO3	Personal Hygiene LO4
Vulnerable groups covered	Protecting individuals
Equality Act 2010, Children's Act 2004, Data protection Act 1998, HASAWA 1974, MH Act 2007	Safety procedures emergency, moving and handling
How legislation impacts service users, providers	Methods for reducing spread of infection, methods for reducing risks and dangers
Legislation as a system of redress	Procedures to prevent accidents and promote good practice



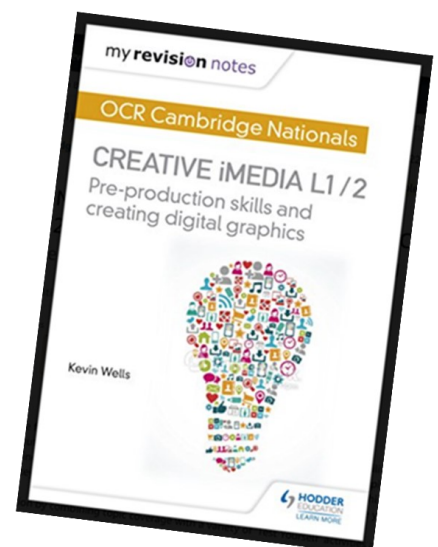
Creative I Media

- Pre-production documents – what are they and what elements do they include?

-
- Client briefs
-
- Mood boards
-
- Mind maps
-
- Visualisation diagrams
-
- Storyboards
-
- Scripts
-
- Workplans
-
- Location recce
-
- Media legislation
-
- Target audience, primary and secondary research
-
- Hardware and software
-
- Health and safety requirements
-
- File formats



Creative iMedia



Not fresh/gone of
Say
STALE
UNSAFE
SHORT SHELF LIFE

Catering

USEFUL APPS/BLOGS/BOOKS ETC

GCSE Food Preparation & Nutrition For AQA (Grade 9-1)

AQA GCSE Food Preparation and Nutrition (Anita Tull Gary Little wood)

<https://www.aqa.org.uk/subjects/food/gcse/food-preparation-and-nutrition-8585>

<https://www.illuminate.digital/aqafood/> (username and password available – see teams)

<https://foodafactoflife.org.uk/14-16-years/>

Useful you tube experiments

<https://www.youtube.com/watch?v=0oaQVdSXR48&app=desktop>

Different flours > amount of gluten > stretching dough

<https://www.youtube.com/watch?v=0USi4DbRVVQ>

Raising agents

<https://www.youtube.com/watch?v=bJ7uXScRTWw>

Coagulation

<https://www.youtube.com/watch?v=vg5k6t6uZwE>

Conduction of heat

<https://www.youtube.com/watch?v=xyQY8a-ng6g>

Effects of food on your brain

<https://www.youtube.com/watch?v=JlhhAPxEY6I>

Food contamination

<https://www.youtube.com/watch?v=2QQvhFPZedM>

Foodborne illnesses (11mins)

<https://www.youtube.com/watch?v=eKaBQrFdNtw>

Digestion (7mins)

<https://www.youtube.com/watch?v=9iMGFqMmUFs>

What happens if we do not drink water (5mins)

<http://ed.ted.com/lessons/how-the-food-you-eat-affects-your-brain-mia-nacamulli>

How the food we eat affects our brain

<http://ed.ted.com/lessons/what-is-a-calorie-emma-bryce>

What is a calorie?

<http://www.bbcgoodfood.com/videos/techniques/knife-skills>

Knife skills

<https://www.youtube.com/watch?v=TGSgZiEUdYw>

4 Cs <https://www.youtube.com/watch?v=8aWqZd9RScQ>

Eatwell Guide

<https://www.youtube.com/watch?v=UyDqrhQLOHM>

<https://www.youtube.com/watch?v=iQ0dvzA1ynY>

Intro to food allergens

<https://www.youtube.com/watch?v=rNARXt01Gr0>

Intro to Food room – safety & hygiene

<https://www.youtube.com/watch?v=RkdBKb0nokM>

Hugh's fat fight

<https://www.bbc.co.uk/iplayer/episode/b0b0y27w/britains-fat-fight-with-hugh-fearnleywhittingstall-series-1-episode-1>

TOP REVISION TIPS!

Plan out a revision schedule

Make flash cards from the revision power point given

Don't revise while hungry

Practice, Practice, Practice

OCR Sport Science

LO1: Understand different factors which influence the risk of injury, ~~extrinsic~~ **intrinsic** risk factors of injury
LEARNING OUTCOMES

- 1 Identify the 5 different **extrinsic risk factors** which can influence injury
- 2 Describe/explain how the **type of activity** can cause an injury
- 3 Describe/explain how **coaching/supervision** can cause an injury
- 4 Describe/explain how **equipment** can cause an injury
- 5 Describe/explain how **safety hazards** can cause an injury
- 6 Describe/explain how **environmental factors** can cause an injury
- 7 Identify the 5 different **intrinsic risk factors** which can influence injury
- 8 Describe/explain how **physical preparation** can cause an injury
- 9 Describe/explain how **individual variables** can cause an injury
- 10 Describe/explain how **psychological factors** can cause an injury
- 11 Describe/explain how **posture and causes of poor posture** can cause an injury
- 12 Describe/explain how **sports injuries related to poor posture** can cause an injury

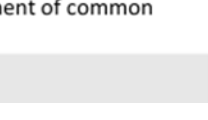
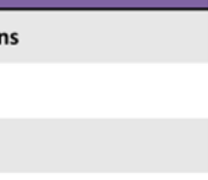
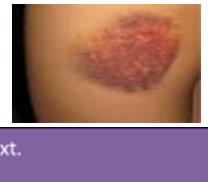
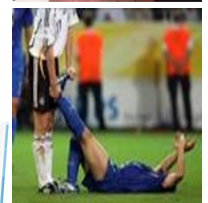
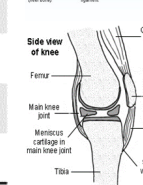
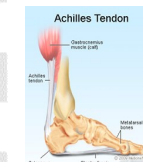


LO2: Understand how appropriate warm up & cool Down routines can help to prevent injury
LEARNING OUTCOMES

- 1 The Physical benefits of a warm up
- 2 The psychological benefits of a warm up
- 3 Key components of a warm up
- 4 Physical benefits of a cool down
- 5 Specific needs which a warm up and cool down must consider

LO3: know how to respond to injuries within a sporting context
LEARNING OUTCOMES

- 1 Define acute injury and provide an example of one
- 2 Define chronic injury and provide an example of one
- 3 What does R.I.C.E stand for?
- 4 Identify 2 soft tissue injuries
- 5 How is a sprain caused? Provide a sporting example
- 6 How is a strain caused? Provide a sporting example
- 7 How are shin splints caused?
- 8 Define Severs disease?
- 9 Define Osgood Schlatters disease?
- 10 Define cramp and explain how is it treated?
- 11 Define splints and explain what taping used for?
- 12 Identify the 3 parts of an emergency action plan?



LO4: Know how to respond to injuries within a sporting context.
LEARNING OUTCOMES

- 1 Develop knowledge and understanding of common medical conditions
- 2 Research and explain the **symptoms** of common medical conditions
- 3 Research and explain **how to treat** common medical conditions
- 4 Create and answer exam style questions of the symptoms and treatment of common medical conditions
- 5

Business Studies

OCR Level 1/2 Cambridge National Certificate in Enterprise and Marketing J819

Understand how to target a market			
The need for customer segmentation			
Types of market segmentation			
The benefits of market segmentation			
The purpose of market research			
Primary (field) market research methods (physical or digital) and their benefits			
Secondary (desk) market research sources and their benefits			
The types of customer feedback techniques available to business start-ups			
Understand what makes a product or service financially viable			
Cost of producing the product or service			
Revenue generated by sales of the product or service			
Use of break-even as an aid to decision making,			
Break-even graphs - interpretation of a break-even graph in order to identify the break-			
How profit per unit is calculated			
Understand product development			
The product lifecycle • Development • Introduction • Growth • Maturity • Decline			
Extension strategies for products in the product lifecycle and the appropriateness of each			
How to create product differentiation			
The impact of external factors on product development			
Understand how to attract and retain customers			
Factors to consider when pricing a product to attract and retain customers			
Types of pricing strategies and the appropriateness of each			
Types of advertising methods used to attract and retain customers and the appropriateness			
Sales promotion techniques used to attract and retain customers and the appropriateness			
How customer service is used to attract and retain customers			
Understand factors for consideration when starting up a business			
Appropriate forms of ownership for business start-ups			
Source(s) of capital for business start-ups			
The importance of a business plan			
Understand different functional activities needed to support a business			
The purpose of each of the main functional activities that may be needed in a new busi-			
The main activities of each functional area			

Computer Science

Unit 1

1.1 System Architecture

1.1.1 Architecture of the CPU

The purpose of the CPU:

The fetch-execute cycle

Common CPU components and their function:

ALU (Arithmetic Logic Unit)

CU (Control Unit)

Cache

Registers

Von Neumann architecture:

MAR (Memory Address Register)

MDR (Memory Data Register)

Program Counter

Accumulator

1.1.2 CPU performance

How common characteristics of CPUs affect their performance:

Clock speed

Cache size

Number of cores

1.1.3 Embedded systems

The purpose and characteristics of embedded systems

Examples of embedded systems

1.2 – Memory and storage

1.2.1 Primary storage (Memory)

The need for primary storage

The difference between RAM and ROM

The purpose of ROM in a computer system

The purpose of RAM in a computer system

Virtual memory

1.2.2 Secondary storage

The need for secondary storage

Common types of storage:

Optical

Magnetic

Solid state

Suitable storage devices and storage media for a given application

The advantages and disadvantages of differ-

ent storage devices and storage media relating to these characteristics:

Capacity

Speed

Portability

Durability

Reliability

Cost

1.2.3 Units

The units of data storage:

Bit

Nibble (4 bits)

Byte (8 bits)

Kilobyte (1,000 bytes or 1 KB)

Megabyte (1,000 KB)

Gigabyte (1,000 MB)

Terabyte (1,000 GB)

Petabyte (1,000 TB)

How data needs to be converted into a binary format to be processed by a computer

Data capacity and calculation of data capacity requirements

1.2.4 Data storage

Numbers

How to convert positive denary whole numbers to binary numbers (up to and including 8 bits) and vice versa

How to add two binary integers together (up to and including 8 bits) and explain overflow errors which may occur

How to convert positive denary whole numbers into 2-digit hexadecimal numbers and vice versa

How to convert binary integers to their hexadecimal equivalents and vice versa

Binary shifts

Computer Science

Characters

The use of binary codes to represent characters
The term 'character set'
The relationship between the number of bits per character in a character set, and the number of characters which can be represented, e.g.:

ASCII

Unicode

Images

How an image is represented as a series of pixels, represented in binary

Metadata

The effect of colour depth and resolution on:

The quality of the image

The size of an image file

Sound

How sound can be sampled and stored in digital form

The effect of sample rate, duration and bit depth on:

The playback quality

The size of a sound file

1.2.5 Compression

The need for compression

Types of compression:

Lossy

Lossless

1.3 Computer networks, connections, and protocols

1.3.1 Networks and topologies

Types of network:

LAN (Local Area Network)

WAN (Wide Area Network)

Factors that affect the performance of networks

The different roles of computers in a client-server and a peer-to-peer network

The hardware needed to connect stand-

alone computers into a Local Area Network:

Wireless access points

Routers

Switches

NIC (Network Interface Controller/ Card)

Transmission media

The Internet as a worldwide collection of computer networks:

DNS (Domain Name Server)

Hosting

The Cloud

Web servers and clients

Star and Mesh network topologies

1.3.2 Wired and wireless networks, protocols and layers

Modes of connection:

Wired

Ethernet

Wireless

Wi-Fi

Bluetooth

Encryption

IP addressing and MAC addressing

Standards

Common protocols including:

TCP/IP (Transmission Control Protocol/ Internet Protocol)

HTTP (Hyper Text Transfer Protocol)

HTTPS (Hyper Text Transfer Protocol Secure)

FTP (File Transfer Protocol)

POP (Post Office Protocol)

IMAP (Internet Message Access Protocol)

SMTP (Simple Mail Transfer Protocol)

The concept of layers

Computer Science

1.4 – Network security

1.4.1 Threats to computer systems and networks

Forms of attack:

- Malware
- Social engineering, e.g. phishing, people as the 'weak point'
- Brute-force attacks
- Denial of service attacks
- Data interception and theft
- The concept of SQL injection

1.4.2 Identifying and preventing vulnerabilities

Common prevention methods:

- Penetration testing
- Anti-malware software
- Firewalls
- User access levels
- Passwords
- Encryption
- Physical security

1.5 – Systems software

1.5.1 Operating systems

The purpose and functionality of operating systems:

- User interface
- Memory management and multitasking
- Peripheral management and drivers
- User management
- File management

1.5.2 Utility software

The purpose and functionality of utility software

Utility system software:

- Encryption software
- Defragmentation
- Data compression

1.6 – Ethical, legal, cultural and environmental impacts of digital technology

1.6.1 Ethical, legal, cultural and environmental

impact

Impacts of digital technology on wider society including:

- Ethical issues
- Legal issues
- Cultural issues
- Environmental issues
- Privacy issues

Legislation relevant to Computer Science:

- The Data Protection Act 2018
- Computer Misuse Act 1990
- Copyright Designs and Patents Act 1988
- Software licences (i.e. open source and proprietary)

Revision topic checklist

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KEY WORDS