Revision Checklist:

Da Vinci Academy
A L.E.A.D. Academy

Mock 3 Series

Mock 3	AM 9.00am Exam Start	PM 1:00pm Exam Start
Mon 26th Feb	Food (Practical Exam - Official)	
Tues 27th Feb	Food (Practical Exam - Official)	
Wed 28th Feb	English Language Paper 1 (1 hour 45)	Geography Paper 1 (1 hour 30)
Thurs 29th Feb	Biology Paper 2 (1 hour 45)	French Listening and Reading (F=1 hour 20 H=1 hour 45)
Fri 1st Mar	Math Paper 1 non-calc (1 hour 30)	Computer Science Paper 1 Computer Systems (1 hour 30)
Mon 4th Mar	French Writing (F=1 hour H=1 hour 15) Citizenship (45 mins)	Chemistry Paper 2 (1 hour 45)
Tues 5th Mar	English Language Paper 2 (1 hour 45)	History Paper 1 (2 hour)
Wed 6th Mar	Maths Paper 2 calc (1 hour 30)	Computer Science Paper 2 Computational Thinking (1 hour 30)
Thurs 7th Mar	Physics Paper 2 (1 hour 45)	Geography Paper 2+3 (1 hour 30)
Fri 8th Mar	Maths Paper 3 calc (1 hour 30)	History Paper 2 (2 hour)
Mon 11th Mar	BTEC SPORT Component 3 (1 hour)	MOP UP
Tues 12th Mar	MOP UP	MOP UP

Examination Logistics

Rooming:
Sports Hall – Main Cohort
Interview Rooms + Gym + W14 – Access Arrangements
Conference Room – Learning Hub

AM Exam Timings:	PM Exam Timings:
8:30 Line Up + Collect Phones and store securely. 9:00 Exam Start	12:40 – Line Up 1:00 – Exam Start
Students will have break as normal. If an examination runs into break, the cohort will be given an extension.	Registers will be taken in the exam hall using the desk name cards by attendance. Students will leave site after PM exam.

Malpractice Awareness:
Under exam conditions the use of unauthorised materials, copying or attempting to copy, escaping from supervision or collusion (i.e. cheating) is not permitted.

Unauthorised Materials Include – Mobile phones, air pods/ear pieces, food, drink labels, correction fluid, gel pens, multi/clicker pens, watches.

Mobile Phones:
Mobiles are not allowed in the exam room. We are collecting mobile phones from students at the start of each day, storing them securely and returning them as students leave site after the PM exams.

Students will not be allowed to enter the exam until contact home has been made should you fail to hand over your phone.

Toilets:
Students without a toilet pass are not allowed to leave the exam within 45 minutes of the exam starting and 30 minutes of the exam finishing.

Students without a toilet pass will not be permitted to leave the exam for any paper shorter than 1 hour 15 minutes.

Access Arrangements:
Students entitled to Access Arrangements may have slightly different rules as part of their plan.

Students will be made aware if this applies to you and access arrangements are organised by Mrs Sisson

Revision Timetable

It is important to have a balance of study, leisure and rest. Use these timetables to plan your week accordingly. These can also be used to plot where you do not have free time available, such as school or when attending clubs or appointments.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9:00							
10:00							
11:00							
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English Language Paper 1

Topic	CGP Page	Key Terms	Revise	Revisit
Language Paper 1				
Language Paper Overview		All Questions and Focus		
Writing Well and Reading with Insight		Organise clearly, paragraphs, link, structure, evidence, inference, suggests, implies		
Spelling Punctuation and Grammar		Check, use of correct punctuation, reread for spelling mistakes		
Information and Ideas		Analyse, understand, implicit, explicit		
Entertaining Texts		Creative vocab, structure, sentence lengths		
Tone		Formal, informal, sombre, happy, passionate		
Writers Methods		Simile, Metaphor, Personification, Irony		
Descriptive Language		Nouns, verbs, adjectives, adverbs, senses, descriptive techniques e.g. simile, metaphor		
Structure – Whole Texts		Focus, linear, non-linear, cyclical, focus shift, sentence type, introduction of character		
Sentence Forms		Short, Compound, Complex		
Writing Stories and Descriptions		Direct Address, tension, pace, narrator, figurative language, description, character		
Sample Question 1		Find Four things		
Sample Question 2		Language Techniques, Effect on Audience		
Sample Question 3		Structure, focus shift, sentence types, hook		
Sample Question 4		Personal response, language, structure		
Sample Question 5		Description, Creative Writing, Entertain		

Revision Sources

Online		Physical
Mr Bruff Language Paper 1: [mr bruff language paper 1 - Bing video](#)		Class notes Revision booklets

English Language Paper 2

Topic	CGP Page	Key Terms	Revise	Revisit
Language Paper 2				
Language Paper Overview		All Questions and Focus		
Writing Well and Reading with Insight		Organise clearly, paragraphs, link, structure, evidence, inference, suggests, implies		
Spelling Punctuation and Grammar		Check, use of correct punctuation, reread for spelling mistakes		
Information and Ideas		Analyse, understand, implicit, explicit		
Entertaining Texts		Creative vocab, structure, sentence lengths		
Tone		Formal, informal, sombre, happy, passionate		
Writers Methods		Simile, Metaphor, Personification, Irony		
Transactional writing		Powerful verbs, rhetorical questions, direct address, repetition, anecdote, facts, opinions		
Structure – Whole Texts		Focus, linear, non-linear, cyclical, focus shift, sentence type, introduction of character		
Sentence Forms		Short, Compound, Complex		
Writing Stories and Descriptions		Direct Address, tension, pace, narrator, figurative language, description, character		
Sample Question 1		Identify four true statements		
Sample Question 2		Writing a summary – making clear inferences		
Sample Question 3		Writing about language and its effects		
Sample Question 4		Comparing writer's viewpoints & perspectives		
Sample Question 5		Transaction writing – writing to voice opinion, letters, articles, speeches, text of a leaflet, blog		

Revision Sources		
Online		**Physical**
Mr Bruff Language Paper 1: [mr bruff language paper 1 - Bing video](#)		Class notes Revision booklets

Geography – Paper 1

Topic	Key information	Revise	Revisit
Natural Hazards			
Tectonic Hazards	• Distribution of tectonic hazards • Plate margins – constructive, destructive (including collision) and conservative • Contrasting earthquake case studies **(Amatrice/Italy [HIC] and Nepal [LIC])**. Why were the impacts and management so different? • Why do people live in areas of tectonic hazards? Focus on volcanic hazards • How can we reduce the effects of tectonic hazards? 3ps and monitoring		
Weather Hazards	• Global atmospheric circulation model • Formation and distributions of tropical storms • Tropical storm case study **(Typhoon Haiyan)** - Impacts and responses. • How does global warming affect tropical storms? • How can we reduce the effects of tropical storms? 3Ps and monitoring • UK weather case study **(Cumbria Floods).** Impacts and responses. • What are the impacts of extreme weather in the UK and how can it be managed?		
Climate Change	• Evidence for and against climate change • Human and natural causes of climate changes • Social, economic and environmental impacts of climate change • Mitigation and adaptation strategies		
Living World			
Ecosystems	• Small scale ecosystems, food webs, nutrient cycle and relationships within them • Location and characteristics of biomes		
Tropical Rainforests (TRF)	• Physical characteristics of the TRF. • Interdependence in the TRF • Biodiversity and plant and animal adaptations • Deforestation case study **(Amazon Rainforest)**. Causes, impacts and sustainable management of the TRF. • Importance of the TRF • Sustainable management of the TRF		
Hot Deserts	• Physical characteristics of hot deserts • Interdependence in hot deserts • Biodiversity and plant and animal adaptations • Hot desert case study **(Western Desert, USA)**. Opportunities (energy, mining etc...) and challenges in the Western Desert (Extreme heat, lack of water, inaccessibility). • Desertification – causes, impacts and management in the Sahel		
Physical Landscapes of the UK			
Coasts	• Key Processes of erosion, transportation, deposition, weathering and mass movement • Formation of erosional (Stack, wave cut platform, headlands and bays) and depositional landforms (spit, bar, beach, sand dune) • Coastal landscape case study **(Dorset Coast)** - The coastline features, causes of erosion, coastal defences. • Hard and soft engineering methods. How they work and Positives/Negatives		
Rivers	• River features from source to mouth **(River Tees)** • Key Processes of erosion, transportation and deposition • Formation of waterfall, meander, flood plain, interlocking spurs, oxbow lakes and levees • Flood hydrographs – How to read them and what physical and human factors affect the chances of a flood. • Hard and Soft engineering methods. How they work and Positives/Negatives • Management of flood risks, e.g. Jubilee River Flood Relief Channel • Hydrographs		

Geography – Paper 2

Topic	Key Terms	Revise	Revisit
Urban Issues			
Urbanisation	• Causes of urbanisation around the world and reasons for different rates in LICs and HICs • Megacities – what are they are where are they found?		
Case study of an LIC city	• **Lagos –** Location and importance • Opportunities (Access to health, shanty town regeneration, public transport [BRT]). • Challenges (Managing shanty towns (Makoko), sanitation, water, waste disposal, air and water pollution) • How is Lagos improving the quality of lives for the urban poor? **Makoko Redevelopment.**		
Case study of a UK city	• **London –** Location and importance • Impact of internal and international migration on London • Opportunities (cultural mix, recreation, employment, transport system, urban greening) • Challenges (inequalities, urban deprivation, brownfield and greenfield sites, waste disposal, urban sprawl, crime, congestion) • Explanation of regeneration (London Olympic Park, Docklands, Shoreditch)		
Urban sustainability	• How can people live more sustainably? • Case study on sustainable urban living **(East Village/Olympic Park)** • How can urban transport strategies reduce traffic congestion? Crossrail and Boris Bikes		
Changing Economic World			
Comparison of LIC **(Nigeria)** and LICs **(UK)**	• How economic development leads to improved quality of life • Trade and aid as methods to reduce the development gap • The economic development of Nigeria, including its changing economy, TNCs, aid, debt, the involvement of China, economic migration out of Nigeria • The economic development of the UK including the industrial structure, deindustrialisation, post-industrial economy (M4 corridor), high-tech industry (Cambridge), motor industry, rural changes, transport and infrastructure (ports and airports) • Inequalities within a country: the UK's north-south divide • The UK's global links		
Resource Management			
General	• The importance of food, water and energy to people's wellbeing • Distribution of global resources and reasons for the distribution.		
UK resources	• Distribution of resources in the UK • Food in the UK - (Changing demand for food in the UK, Food miles – why are they increasing and how can we reduce them?, how is farming changing in the UK) • Water in the UK - (Why is demand increasing?, What issues are there with water quality? Where is water supply and demand in the UK? What are water transfer schemes and what issues d0 they have? • Energy in the UK - (How is the UKs energy mix changing? How is the UK moving to renewable energy, what environmental and economic issues are associated with this move?		
Food	• Gobal distribution of food (surplus and demand) • Why is food consumption increasing? • What factors affect food supply? • What are the impacts of food insecurity? • How can food supplies be increased (sustainably)? • **ALMERIA – Case study –** Large scale agricultural development • **RICE/FISH FARMING –** Case Study - Local scheme to increase food supplies		

Revision Sources

Online	Physical
• GCSE Pod • Seneca • BBC Bitesize • Mr B's Geography Channel on Youtube	• Knowledge organisers • Exercise books • Revision work from class • Case Study information • Fieldwork summary crib sheet

Geography – Paper 3

Topic	Key Terms	Revise	Revisit
Fieldwork			

Enquiry Question	• You will be required to write the title of your fieldwork:
	   • Physical: To what extent is Elvaston Castle Country Park a healthy and balanced ecosystem?
	   • Human: To what extent has the regeneration of the CBD of Derby been overwhelmingly positive?
	• I know the factors that need to be considered when selecting suitable questions.
	• I know the potential risks of both human and physical fieldwork and how reduced		

Data Collection	• I can explain the difference between primary and secondary data • I can describe some data collection methods and explain their advantages and disadvantages – e.g. taking photographs, measuring channel depth, conducting traffic surveys. • I understand the difference between qualitative and quantitative data • I can identify and select different sampling methods such as random, stratified and systematic.		
Data Presentation	• I can select and use accurately appropriate presentation methods such as annotated photographs, bar charts and maps • I can describe different data presentation methods and explain their positives and negatives		
Data Analysis	• I can describe, analyse and explain the results of fieldwork data. • I can explain links between different sets of data • I can identify anomalies in fieldwork data • I can confidently calculate mean, mode, median, range and interquartile range		
Conclusion	• I can draw evidenced conclusions based on data analysis		
Evaluation	• I can identify the problems of data collection methods • I can identify the limitations of data collected • I can suggest other data that might be useful • I can suggest ways of improving enquiries in the future		

Geographical Skills – GCSE Pod (For all three papers)			
Fieldwork	Graph	Cartographic (Map)	Statistics

Prefer Seneca?

History – Germany (Paper 1)

Topic	Key Knowledge		Revise	Revisit
Key topic 1: The rule of the Kaiser and the First World War 1890-1918	• Germany during the reign of the Kaiser: the growth of socialism and trade unions, the impact of these on parliamentary government, rivalry with Britain. • The Kaiser's foreign policy aims: Weltpolitik & the Naval Laws. • Germany and the First World War: impact of the war on the home front, reasons for the Kaiser's abdication, the Kiel Mutiny and armistice, the introduction of democratic government.			
Key topic 2: The Weimar Republic, 1918 -19	• The setting up of the Weimar Republic. The strengths and weaknesses of the new Constitution. • Reasons for the early unpopularity of the Republic, including the 'stab in the back' theory and the key terms of the Treaty of Versailles. • Challenges to the Republic from Left and Right: Spartacists, Freikorps, the Kapp Putsch. • Reasons for economic recovery, including the work of Stresemann, the Rentenmark, the Dawes and Young Plans and American loans and investment. • The challenges of 1923: hyperinflation; the reasons for, and effects of, the French occupation of the Ruhr. • The impact on domestic policies of Stresemann's achievements abroad: the Locarno Pact, joining the League of Nations and the Kellogg-Briand Pact. • Germany's Golden Age: cultural changes including developments in architecture, art and the cinema, music & reactions to these.			
Key topic 3: Hitler's rise to power, 1919-33	• Hitler's early career: joining the German Workers' Party and setting up the Nazi Party. • The early growth and features of the Party. The Twenty-Five Point Programme. The role of the SA. • The reasons for, events and consequences of the Munich Putsch. • Reasons for limited support for the Nazi Party, 1924–28. • The growth of unemployment – its causes and impact. The failure of successive Weimar governments to deal with unemployment from 1929 to January 1933. The growth of support for the Communist Party. • Reasons for the growth in support for the Nazi Party, including the appeal of Hitler and the Nazis, the effects of propaganda and the work of the SA. • Political developments in 1932. The roles of Hindenburg, Brüning, von Papen and von Schleicher. • The part played by Hindenburg and von Papen in Hitler becoming Chancellor in 1933.			
Key topic 4: Nazi control and dictatorship, 1933-39	• The Reichstag Fire. The Enabling Act and the banning of other parties and trade unions. • The threat from Röhm and the SA, the Night of the Long Knives and the death of von Hindenburg. Hitler becomes Führer, the army and oath of allegiance. • The role of the Gestapo, the SS, the SD and concentration camps • Nazi control of the legal system, judges and law courts. • Nazi policies towards the Catholic and Protestant Churches, including the Reich Church and the Concordat. • Goebbels and the Ministry of Propaganda: censorship, Nazi use of media, rallies and sport, including the Berlin Olympics (1936). • Nazi control of culture and the arts, including art, architecture, literature and film. • The extent of support for the Nazi regime. Opposition from the Churches, including the role of Pastor Niemöller. Opposition from the young, including the Swing Youth and the Edelweiss Pirates.			
Key topic 5: Life in Nazi Germany 1933-39	• Nazi views on women and the family. Nazi policies towards women, including marriage and family, employment and appearance • Nazi aims and policies towards the young. The Hitler Youth and the League of German Maidens. • Nazi control of the young through education, including the curriculum and teachers. • Nazi policies to reduce unemployment, including labour service, autobahns, rearmament and invisible unemployment. • Changes in the standard of living, especially of German workers. The Labour Front, Strength Through Joy, Beauty of Labour. • Nazi racial beliefs and policies and the treatment of minorities: Slavs, 'gypsies', homosexuals and those with disabilities • The persecution of the Jews, including the boycott of Jewish shops and businesses (1933), the Nuremberg Laws and Kristallnacht.			

Topic	Key Knowledge	Revise	Revisit
Key topic 1: Peacemaking 1918-1919	• The aims of the Big Three (Clemenceau, Wilson & LLoyd George) & why they were willing to comprom • The terms of the Treaty of Versailles • The reaction to the treaty: the views of the people & leaders of Britain, France & the USA • The reactions to the treaty: the views of the German people and the impact on the new Weimar government • Negative consequences of the treaty & arguments as to why it can be justified • The terms of the treaties imposed on Germany's allies • The extent that each of the Big Three achieved their aims		
Key topic 2: The League of Nations in the 1920s	• The creation of the League: aims, membership & powers • Structure of the League: Assembly, Council, Permanent Court of International Justice & role of Special Comm • The work of the Special Commissions: successes and failures • Events in the 1920s: Vilna (1920), Upper Silesia (1921-25), Aland Islands (1921), Corfu (1923), Bulgaria (1925) & Wall Street Crash (1929). • International agreements that did not involve the League: Locarno Treaties (1925), Rapallo Treaty (1922), Washington Arms Conference (1921-22) & Kellogg-Briand Pact (1928)		
Key topic 3: The League of Nations in the 1930s	• The impact of the Great Depression on international cooperation • The Manchurian Crisis: reasons for Japan's invasion, events of the invasion, the League's response • The Abyssinian Invasion: reasons for Italy's invasion, events of the invasion, the League's response • Results of the League's actions in the 1930s: effect on the League, impact on international relations & effect on Hitler • Factors in the League's failure: the League's actions, the response of Britain & France, incomplete membership, the League's weak powers, the Depression etc.		
Key topic 4: Hitler's Foreign Policy 1933-1938	• Hitler's foreign policy aims: Lebensraum, Volksdeutsche, rearmament etc. • Early foreign policy events 1933-1935: reasons for leaving the Disarmament Conference, the Dollfuss affair (attempted Anschluss), rearmament, the Saar plebiscite & Anglo-German Naval Agreement. • The reoccupation of the Rhineland (1936): reasons for it, response from Britian, France & the League, why it was a gamble & results for Hitler. • Anschluss (1938): events, results for Germany, response from other countries • The Sudetenland Crisis (1938): reasons why Hitler wanted the Sudetenland, events of 1938, the effects of appeasement on Chamberlain's response. • The Munich Conference (1938): reasons why the conference was called, the reaction of Britain, France & Italy to Hitler's demands, results of the conference, Chamberlain's claims of 'peace in our time', subsequent invasion of the rest of Czechoslovakia. • Appeasement: positives and negatives of the policy. • The Nazi-Soviet Pact (1939): reasons for Germany & the USSR signing the Pact, what was agreed & Britain & France's response to the Pact. • The invasion of Poland (1939): Germany's actions, Britain & France's response. • Factors that resulted in the outbreak of the Second World War: Hitler's actions, the failure of the League, the Depression, the Treaty of Versailles & appeasement.		

History – Elizabethan England (Paper 2)

Topic	Key Knowledge	Revise	Revisit
Key topic 1: Elizabeth's court, Parliament & early issues of her reign	• Elizabeth's Character & early life • How England was ruled under Elizabeth – court, Parliament, the Privy Council, JPs & Lord Lieutenant • The difficulties facing a female ruler • The reasons why the issue of marriage was so important • The potential suitors • Elizabeth's attempts to find a religious solution		
Key topic 2: Challenges to Elizabeth at home and abroad, 1569–88	• The reasons for, and significance of, the Northern Rebellion, 1569–70. • The features and significance of the Ridolfi, Throckmorton and Babington plots. Walsingham & of spies. • Mary, Queen of Scots and why she posed a problem for Elizabeth • The reasons for, and significance of, Mary Queen of Scots' execution in 1587. • The reasons for the Earl of Essex' rebellion • Reasons why the rebellions against Elizabeth failed • Reactions to Elizabeth's religious policies: Catholic responses (papal bull, laws introduced against Catholics in the 1580s). • The arrival of missionaries & Jesuit priests e.g. Edmund Campion • Reactions to Elizabeth's religious policies: Puritan responses (arguments with Elizabeth, prophesyings, later crackdowns by John Whitgift)		
Key topic 3: Elizabethan society 1558-88	• Wealth and fashion in Elizabethan England: the differences between gentry & nobility, how people demonstrated their wealth • The role of the theatre. • The reasons why the Elizabethan period can be seen as a 'Golden Age'. • The reasons for the increase in poverty and vagabondage during these years. • The changing attitudes towards the poor. • The introduction of the Poor Law (1601)		
Key topic 4: Exploration & relations with Spain	• Factors prompting exploration, including the impact of new technology on ships and sailing and the drive to expand trade. • The reasons for, and significance of, Drake's circumnavigation of the globe. • The significance of Raleigh and the attempted colonisation of Virginia. • Commercial rivalry. The New World, privateering and the significance of the activities of Drake. • The impact of the voyages of discovery on England (wealth, power & territory) • Political and religious rivalry with Spain. • English direct involvement in the Netherlands, 1585–88. • Spanish invasion plans. Reasons why Philip used the Spanish Armada. • The reasons for, and consequences of, the English victory.		

Historical environment: Sheffield Manor Lodge	• Location of SML
	• Function: place or prison? Features of the building and surrounding area
	• People: Mary, Queen of Scots and the threat she posed to Elizabeth
	       George Talbot, Earl of Shrewbury. Reasons why he was chosen as jailor, impact on him & why he lost his role
	       Bess Talbot. How relationship with Mary & the impact on her marriage
	• Events: the Northern Rebellion and Mary's role in it. The impact of the rebellion on Mary		

History – Health & The People (Paper 2)

Topic	Key Knowledge		Revise	Revisit
Health & The People 1000-Present Day				
Medieval Period 1000-1500	• Hippocrates, Galen & the Four Humours • Treatments: the Natural, the Supernatural and Astrology • Medieval Medics • The Christian Church • Islam and Muslim Doctors • Medieval Public Health • The Black Death			
Renaissance Period 1500-1700	• Vesalius & the Human Anatomy • Paré, Ligatures and the Impact of War on Medicine • Harvey and the Circulatory System • Approaches to Treatment and Prevention of Illness • New Ideas, New Technologies, New Science • Responses to the Great Plague of 1665 • The Changing Nature of Hospitals and Medical Professions			
Industrial Period 1700-1900	• Simpson and Anaesthetics • Pasteur and Germ Theory • Lister and Antiseptics • Robert Koch and Bacteriology • Magic Bullets and Immunology • Treatment in Industrial Britain • Industrialisation and its Impact on Health and Medicine			
Modern Period 1900-2000	• Fleming, Florey, Chain and Penicillin • The NHS • Alternative Medicine • Modern Surgery • McIndoe and Plastic Surgery • Living Conditions and Welfare • Liberal Reforms • Modern Developments			

Revision Sources

Online	Physical
BBC Bitesize www.bbc.co.uk/bitesize Oak Academy www.classroom.thenational.academy **YouTube:** **Early Elizabethan** England Revision https://www.youtube.com/watch?v=wEyo64_ixes Weimar and Nazi Germany https://www.youtube.com/playlist?list=PLxblrnocOkdUs6VsKaw4t4l7qHhgvIv7d	Booklets Revision booklets Class notes Knowledge Organisers

Maths – Foundation

Unit		Unit / Topic	Revise	Revisit
1	**a**	**Integers and place value**		
		Types of number		
		Use and order positive and negative numbers		
		Use inequality symbols		
		Four operations using positive and negative numbers		
		Round numbers to nearest 10, 100, 1000 and use rounding for estimation		
	b	**Decimals**		
		Use decimals and place value		
		Compare and order decimal numbers		
		Four operations using decimal numbers		
		Round to nearest whole number, decimal place & significant figures		
		Use one calculation to check another		
	c	**Indices, powers and roots**		
		Find squares and cubes		
		Use index notation including negative powers		
		Use laws of indices to multiply and divide numbers in index form		
		Order of operations including powers and brackets		
		Use of calculator		
	d	**Factors, multiples and primes**		
		Identify factors, multiples and prime numbers		
		Find prime factorisation of a number (& write in index form)		
		Find common factors & highest common factor		
		Find LCM of two (or three) numbers		
2	**a**	**Algebra: the basics**		
		Write an expression		
		Collect like terms		
		Simplify expressions		
		Use index laws		
	b	**Expanding and factorising single brackets**		
		Expand single brackets		
		Simplify expressions using squares and cubes		
		Factorise expressions		
	c	**Expressions and substitution into formulae**		
		Substitute into expressions involving brackets & powers		
		Substitute into a formula (& word formula)		
3	**a**	**Tables**		
		Sort and classify data (inc tally charts)		
		Extract data from lists and tables (inc time tables)		
		Identify mode from a list / table		
	b	**Charts and graphs**		
		Know which chart or diagram to use for different data sets		
		Draw and interpet bar charts (inc dual & composite)		
		Draw and interpet line graphs (vertical & time-series)		
		Draw and interpet frequency polygons		
		Draw and interpet pictograms		
		Draw and interpret stem and leaf diagrams		
	c	**Pie charts**		
		Draw and use pie charts		
		Find mode & total frequency from a pie chart		
		Compare two pie charts		
	d	**Scatter graphs**		
		Draw and use scatter graphs & lines of best fit		
		Identify outliers & correlation		

Maths – Foundation

Unit	Unit / Topic	Revise	Revisit
4	**Fractions**		
a	Equivalent fractions including simplifying & comparing		
	Express one amount as a fraction of another		
	Convert between mixed numbers and improper fractions		
	Four operations using fractions		
	Find a fraction of an amount		
	Fractions, decimals and percentages		
b	Use fraction to decimal conversions		
	Recognise terminating & recurring decimals		
	Percentages		
c	Convert between fractions, decimals & percentages		
	Order & compare fractions, decimals & percentages		
	Write one amount as a percentage of another		
	Calculate percentage of an amount		
	Calculate percentage increase/decrease		
	Use decimals to find quantities (multiplier methods)		
	Increase / decrease an amount by a percentage		
5	**Equations**		
a	Use function machines		
	Solve equations (inc brackets and unknowns on both sides)		
	Rearrange simple equations		
	Set up & solve equations to solve problems		
	Inequalities		
b	On a number line		
	Listing numbers that satisfy an inequality		
	Solving inequalities and show the solution on a number line		
	Error intervals due to rounding & truncation		
	Sequences		
c	Continue sequences inc from pictures		
	Find the nth term		
	Use nth term rule to generate or continue a sequence		
6	**Properties of shapes, parallel lines and angle facts**		
a	Measure and draw lines, angles, 2D & 3D shapes		
	Identify and name 2D shapes and their properties		
	Identify parallel and perpendicular lines		
	Use angle facts - around a point, straight line, vertically opposite etc		
	Use angle properties of parallel lines		
	Interior and exterior angles of polygons		
b	Use sum of interior angles for irregular & regular polygons		
	Use sum of exterior angles for regular polygons		
7	**Statistics and sampling**		
a	Understand bias		
	The averages		
b	Use various charts & diagrams in relation to averages		
	Calculate the mean, mode, median and range from a list		
	Median, mean and range from a table (discrete data)		
	Modal class, median and estimate of the mean from grouped data		
8	**Perimeter and area**		
a	Convert between metric measures		
	Read scales		
	Time		
	Perimeter of 2D shapes		
	Area of 2 D shapes		
	Area of compound shapes		
	Surface area of prisms & simple compound forms		

Maths – Foundation

Unit		Unit / Topic	Revise	Revisit
8	b	**3D forms and volume**		
		Identify and name 3D forms and their properties		
		Volume of a cuboid		
		Volume of a prism		
		Volume of a composite forms		
9	a	**Real-life graphs**		
		Use coordinates in all 4 quadrants		
		Midpoints of a line segment		
		Conversion graphs		
		Fixed cost and cost per unit graphs		
		Distance / time and Velocity/ time graphs		
	b	**Straight-line graphs**		
		Draw, use and interpret (inc gradient) straight line graphs		
		Identify parallel lines		
		Find the equation of a line (including from a graph)		
10	a	**Transformations I: translations, rotations & reflections**		
		Transform and describe translations		
		Transform and describe rotations		
		Transform and describe reflections		
	b	**Transformations II: enlargements and combinations**		
		Transform and describe enlargements		
		Transform shapes using a combination of transformations		
		Describe transformations when using multiple transformations		
11	a	**Ratio**		
		Write ratios in their simplest form (including in context)		
		Share a quantity in a given ratio (including 3 part ratios)		
		Use a ratio to find one quantity when another is known		
		Compare ratios		
		Write ratio in the form 1:n or n:1		
		Write a ratio as a fraction and vice versa		
	b	**Proportion**		
		Use direct & inverse proportion (and recognise graphically)		
		Best value		
		Recipes		
		Currency conversions		
12		**Right-angled triangles: Pythagoras and trigonometry**		
		Pythagoras' Theorem		
		Trigonometry - sin, cos and tan		
		Know exact trig values		
13	a	**Probability I**		
		Probability scale		
		Listing outcomes		
		Two way tables & Frequency Trees		
		Use 1-p		
	b	**Probability II**		
		Relative frequency		
		Sample space diagrams		
		Venn diagrams & set notation		
		Probability tree diagrams		
14		**Multiplicative reasoning**		
		Use compound measures: Pressure, Density & Speed		
		Percentage profit / loss		
		Reverse percentages		
		Simple interest		
		Compound interest & growth		
		Depreciation & decay		
		Rates of pay		

Maths – Foundation

Unit		Unit / Topic	Revise	Revisit
15	a	**Plans and elevations**		
		3D shape names and properties		
		Skettch 3D forms		
		Draw plans and elevations of shapes		
		Draw a 3D form given its plan and elevations		
	b	**Constructions, loci and bearings**		
		Standard constructions		
		Find regions satisfying a combination of loci		
		Use maps and scale drawings		
		Bearings		
16	a	**Quadratic equations: expanding and factorising**		
		Expand double brackets		
		Factorise quadratic expressions		
		Solve quadratic equations		
	b	**Quadratic equations: graphs**		
		Plot quadratic graphs		
		Find solutions, intercepts & turning points of a quadratic graph		
17		**Circles, cylinders, cones and spheres**		
		Name parts of a circle		
		Recall & use formula for area and circumference of a circle		
		Arcs and sectors		
		Surface area & volume of a cylinder		
		Spheres, pyramids, cones and composite solids.		
18	a	**Fractions and reciprocals**		
		4 operations with mixed number fractions		
		Reciprocal of an integer, decimal or fractions		
	b	**Indices and standard form**		
		Index laws to simplify & calculate the value of an expression		
		Convert between ordinary numbers and standard form		
		Work with the 4 operations in standard form		
		Use a calculator with indices and standard form		
19	a	**Similarity and congruence in 2D**		
		Use congruence criteria for triangles (SSS, SAS, ASA and RHS);		
		Identify similar shapes		
		Identify scale factors and find missing lengths in similar shapes		
	b	**Vectors**		
		Understand and use column notation including drawing them		
		Identify parallel column vectors		
		Calculate using column vectors		
20		**Rearranging equations, graphs of cubic and reciprocal functions and simultaneous equations**		
		Know the terms equation, identity, expression etc		
		Change the subject of a formula		
		Answer simple "show that" questions.		
		Use inverse proportion involving graphs		
		Recognise and sketch cubic functions		
		Recognise and sketch reciprocal functions		
		Solve simultaneous equations algebraically and graphically		

Revision Sources

Online	Physical
Dr Frost Maths, On-Maths, maths made easy	Ms Cruise's High frequency topic booklets, Shadow exam papers, exam papers

Maths – Higher

Unit	Title	Revise	Revisit
1	**Calculations, checking and rounding**		
	a		
	Four operations with decimals and whole numbers		
	Use one calculation to find the answer to another		
	Product rule		
	Rounding & estimation		
	Indices, roots, reciprocals and hierarchy of operations		
	b Use index notation including fractional and negative powers		
	Order of operations		
	Factors, multiples and primes		
	Identify factors, multiples and prime numbers		
	c Find prime factorisation of a number (& write in index form)		
	Find common factors & highest common factor		
	Find LCM of two (or three) numbers		
	Standard form and surds		
	Index laws to simplify & calculate the value of an expression		
	d Convert between ordinary numbers and standard form		
	Work with the 4 operations in standard form		
	Use a calculator with indices and standard form		
	Simplify surd expressions		
2	**Algebra: the basics**		
	a		
	Write an expression		
	Collect like terms		
	Simplify expressions		
	Use index laws		
	Expand single & double brackets		
	Factorise single brackets		
	Factorise quadratic expressions		
	Factorise quadratic expressions using difference of two squares		
	Setting up, rearranging and solving equations		
	b		
	Set up expressions and equations		
	Substitute into expressions, equations and formulae		
	Solve linear equations and inequalities		
	Change the subject of a formula		
	Iteration		
	Sequences		
	c		
	Continue sequences inc from pictures		
	Find the nth term		
	Use nth term rule to generate or continue a sequence		
	Find the nth term of a quadratic sequence		
	Distinguish between arithmetic and geometric sequences		
	Recognise and use simple geometric progressions		
	Find term to term rule of a geometric sequence, including negative, fraction and decimal terms		
3	**Averages and range**		
	a		
	Use various charts & diagrams in relation to averages		
	Two way tables		
	Calculate the mean, mode, median and range from a list		
	Median, mean and range from a table (discrete data)		
	Modal class, median and estimate of the mean from grouped data		
	Draw and interpret stem and leaf diagrams		
	Representing and interpreting data		
	Know which chart or diagram to use for different data sets		
	Draw and interpet bar charts (inc dual & composite)		
	Draw and interpet line graphs (vertical & time-series)		
	b Draw and use pie charts		
	Find mode & total frequency from a pie chart		
	Compare two pie charts		
	Produce and interpret histograms		
	Compare distributions		
	Scatter graphs		
	c Draw and use scatter graphs & lines of best fit		
	Identify outliers & correlation		

Maths – Higher

Unit		Title	Revise	Revisit
4	a	**Fractions**		
		Equivalent fractions including simplifying & comparing		
		Express one amount as a fraction of another		
		Convert between mixed numbers and improper fractions		
		Four operations using fractions		
		Find a fraction of an amount		
		Convert between recurring decimals to fractions and vice versa		
	b	**Percentages**		
		Use fraction to decimal conversions		
		Recognise terminating & recurring decimals		
		Convert between fractions, decimals & percentages		
		Order & compare fractions, decimals & percentages		
		Write one amount as a percentage of another		
		Calculate percentage of an amount		
		Calculate percentage increase/decrease		
		Use decimals to find quantities (multiplier methods)		
		Increase / decrease an amount by a percentage		
		Reverse percentages		
	c	**Ratio and proportion**		
		Write ratios in their simplest form (including in context)		
		Share a quantity in a given ratio (including 3 part ratios)		
		Use a ratio to find one quantity when another is known		
		Compare ratios		
		Write ratio in the form 1:n or n:1		
		Write a ratio as a fraction and vice versa		
		Write a ratio as a linear function		
		Use direct & inverse proportion (and recognise graphically)		
		Recipes		
		Currency conversions		
5	a	**Polygons, angles and parallel lines**		
		Measure and draw lines, angles, 2D & 3D shapes		
		Identify and name 2D shapes and their properties		
		Identify parallel and perpendicular lines		
		Use angle facts - around a point, straight line, vertically opposite etc		
		Use angle properties of parallel lines		
		Use sum of interior angles for irregular & regular polygons		
		Use sum of exterior angles for regular polygons		
		Use the side/angle properties of compound shapes made up of triangles, lines and quadrilaterals		
	b	**Pythagoras' Theorem and trigonometry**		
		Pythagoras' Theorem		
		Trigonometry - sin, cos and tan		
		Know exact trig values		
6	a	**Graphs: the basics and real-life graphs**		
		Use coordinates in all 4 quadrants		
		Conversion graphs		
		Fixed cost and cost per unit graphs		
		Distance / time and Velocity/ time graphs		
		Midpoints of a line segment		
		Calculate the length of a line segment		
	b	**Linear graphs and coordinate geometry**		
		Draw, use and interpret (inc gradient) straight line graphs		
		Find the equation of a line through two points		
		Find the equation of a line (including from a graph)		
		Identify parallel and perpendicular lines		
		Generate equations of parallel and perpendicular lines		
	c	**Quadratic, cubic and other graphs**		
		Plot quadratic graphs		
		Find solutions, intercepts & turning points of a quadratic graph		
		Recognise and sketch cubic functions		
		Recognise and sketch reciprocal functions		
		Draw circles, centre the origin, equation $x^2 + y^2 = r^2$.		

Maths – Higher

Unit		Title	Revise	Revisit
7	a	**Perimeter, area and circles**		
		Convert between metric measures		
		Read scales		
		Perimeter of 2D shapes		
		Area of 2 D shapes and compound shapes		
		Name parts of a circle		
		Recall & use formula for area and circumference of a circle		
		Arcs and sectors		
	b	**3D forms and volume, cylinders, cones and spheres**		
		Identify and name 3D forms and their properties		
		Volume of a cuboid		
		Volume of a prism		
		Volume of a composite forms		
		Surface area of prisms & simple compound forms		
		Surface area & volume of a cylinder		
		Spheres, pyramids, cones, frustums and composite solids.		
	c	**Accuracy and bounds**		
		Calculate the upper & lower bounds of numbers		
		Calculate the upper & lower bounds of an expression		
		Use error intervals (inc truncation)		
8	a	**Transformations**		
		Transform and describe translations, rotations & reflections		
		Transform and describe enlargements inc fractional and negative SF		
		Transform shapes using a combination of transformations		
		Describe transformations when using multiple transformations		
		Describe the changes & invariance achieved by combinations of transformations		
	b	**Constructions, loci and bearings**		
		Draw plans and elevations of shapes		
		Draw a 3D form given its plan and elevations		
		Use maps, scale drawings & bearings		
		Standard constructions		
		Find regions satisfying a combination of loci		
		Fnd and describe regions satisfying a combination of loci, including in 3D		
		Use constructions to solve loci problems including with bearings		
9	a	**Solving quadratic and simultaneous equations**		
		Set up and solve quadratic equations		
		Completing the square		
		Quadratic Formula		
		Solve simultaneous equations algebraically and graphically (linear/linear)		
		Solve simultaneous equations algebraically and graphically (linear/quadratic)		
		Solve simultaneous equations algebraically and graphically (linear/circle)		
	b	**Inequalities**		
		On a number line		
		Listing numbers that satisfy an inequality		
		Solving inequalities and show the solution on a number line		
10		**Probability**		
		Probability scale		
		Listing outcomes		
		Two way tables		
		Frequency trees		
		Use 1-p		
		Relative frequency		
		Sample space diagrams		
		Venn diagrams & set notation		
		Probability tree diagrams		
11		**Multiplicative reasoning**		
		Best value		
		Use compound measures: Pressure, Density & Speed		
		Percentage profit / loss		
		Reverse percentages		
		Simple interest		
		Compound interest & growth		
		Depreciation & decay		
		Rates of pay		

Maths – Higher

Unit		Title	Revise	Revisit
12		**Similarity and congruence in 2D and 3D**		
		Use congruence criteria for triangles (SSS, SAS, ASA and RHS);		
		Use formal geometric proof involving similarity & congruence		
		Identify similar shapes		
		Identify scale factors and find missing lengths in similar shapes		
		Use length, area and volume scale factors		
		Area and surface area of frustums		
13	a	**Graphs of trigonometric functions**		
		Recognise, sketch and interpret graphs of the trigonometric functions		
		Exact trig values		
		Transforming graphical functions		
	b	**Further trigonometry**		
		Formula for area of a triangle		
		Sine rule in 2D and 3D		
		Cosine rule in 2D and 3D		
		Pythagoras Theorem in 3D		
14	a	**Collecting data**		
		Types of data		
		Bias and eliminating bias		
	b	**Cumulative frequency, box plots and histograms**		
		Construct & interpret cumulative frequency tables/graphs		
		Median, quartiles & interquartile range from cumulative diagrams		
		Construct & interpret box plots		
		Median, quartiles & interquartile range from box plots		
		Construct & histograms		
		Estimate the mean and median from a histogram		
15		**Quadratics, expanding more than two brackets, sketching graphs, graphs of circles, cubes and quadratics**		
		Sketch quadratics		
		Identify roots, turning points and intercepts of quadratic graphs		
		Completing the square		
		Expand the product of more than two linear expressions		
		Sketch cubics		
		Solve simultaneous equations graphically		
		Solve and represent quadratic inequalities (including graphically)		
16	a	**Circle theorems**		
		Parts of a circle		
		Prove, recall and apply circle theorems		
	b	**Circle geometry**		
		Recognise and construct the graph of a circle		
		Find the equation of a tangent to a circle		
17		**Changing the subject of formulae (more complex), algebraic fractions, solving equations arising from algebraic fractions, rationalising surds, proof**		
		Rationalise the denominator involving surds		
		Simplify, multiply and divide algebraic fractions		
		Change the subject of a complex formula		
		Algebraic Proof		
		Functions & function notation		
		Inverse functions		
		Composite functions		
18		**Vectors and geometric proof**		
		Understand represent and use vector notation, including column notation		
		Find the length of a vector		
		Calculate the resultant of a vector		
		Geometric problems in 2D where vectors are divided in a given ratio.		
		Geometrical proofs to prove points are collinear & vectors/lines are parallel		
19	a	**Reciprocal and exponential graphs; Gradient and area under graphs**		
		Recognise, sketch and interpret reciprocal graphs		
		Calculate and interpret the area under a curve		
		Calculate and interpret gradient of a tangent to a curve		
	b	**Direct and inverse proportion**		
		Recognise and interpret graphs of direct & inverse proportion		
		Set up and use formulae for direct & inverse proportion		

French

Topic	Revision guide Page	Key Terms	Revise	Revisit
Reading, Listening, Speaking and Translation **Theme 1- Identity and culture**				
Me, my family and friends	Book one p 5-16	About yourself, family, describing people, personalities, relationships and partnership and marriage.		
Technology in everyday life	P 22-27	Technology, Social Media and the problems with Social Media.		
Free-time activities	p 27-46	Music, cinema, books, TV, food, eating out and sports.		
Customs and festivals in French-speaking countries	52-56	Festivals around the Francophone world, religious festivals and customs.		
Reading, Listening, Speaking and Translation **Theme 2- Local, national, international and global areas of interest**				
Home, town, neighbourhood and region	Book two P6,7, 22-43	Where you live, your home, what you do at home, clothes shopping, asking for directions and the weather.		
Social issues	56-61	Healthy living, unhealthy living and illnesses. Charity/volunteer work.		
Global issues	43-50	Environmental problems, poverty/homelessness.		
Travel and tourism	8,9, 13-23	Where to go, accommodation, getting ready to go, transport options, holiday activities.		
Reading, Listening, Speaking and Translation **Theme 3- Current and future study and employment**				
My studies	Book 3 P 5 - 23	School subjects, teachers.		
Life at school/college	5-23	School routine, timetable, bullying, what you do at break/lunch, pressures/exams.		
Education post-16	41-44	Further education, plans for college/6th form.		
Jobs, career choices and ambitions	24-40	Ideal job, part-time jobs, the world of work.		

French

Topic	Key Topics	Revise	Revisit
Foundation writing			
Theme 1- Identity and culture	• Me, my family and friends • Technology in everyday life • Free-time activities		
Theme 2- Local, national, international and global areas of interest	• Home, town, neighbourhood and region • Social issues		
Theme 3- Current and future study and employment	• My studies • Life at school/college • Jobs, career choices and ambitions		
Higher writing			
Theme 1- Identity and culture	• Me, my family and friends • Technology in everyday life • Free-time activities		
Theme 2- Local, national, international and global areas of interest	• Home, town, neighbourhood and region • Social issues • Global issues		
Theme 3- Current and future study and employment	• My studies • Life at school/college • Education post-16 • Jobs, career choices and ambitions		

Reading, writing, speaking and listening				
Language basics	From p. 24	Verbs, WOW phrases, exam techniques		

Revision Sources

Online	Physical
QR codes for past papers as Google quizzes Quizlet - AQA GCSE French Revision GCSE Pod	Paper-based revision guide

Triple Physics – Paper 2

Topic	Page		Revise	Revisit
Foundation Tier				
Forces	55-62	Contact and non contact forces, weight, resultant forces, forces and elasticity (springs), moments, fluid pressure		
Motion	63-73	Motion graphs, scalars and vectors (distance/displacement, speed/velocity), Newton's laws, stopping distances		
Waves	75-80	Transverse waves, longitudinal waves, wave speed equation, wave properties (frequency and wavelength) and wave behaviour (reflection and refraction)		
Electromagnetic waves	81-92	Uses and dangers of electromagnetic waves, lenses, visible light (colours and filters), infra red radiation		
Electromagnetism	94-96	Permanent and induced magnets, making an electromagnet		
Space	97-99	The solar system, star life cycles, evidence of the big bang		
Higher Tier				
Forces	51-59	Contact and non contact forces, weight, resultant forces **in 2 dimensions** forces and elasticity (springs), moments, fluid pressure		
Motion	60-71	Motion graphs, scalars and vectors (distance/displacement, speed/velocity), Newton's laws, stopping distances, **momentum**		
Waves	73-75 And 88-90	Transverse waves, longitudinal waves, wave speed equation, wave properties (frequency and wavelength) and wave behaviour (reflection and refraction). **Sound waves and waves for exploration**		
Electromagnetic waves	76- 87	Uses and dangers of electromagnetic waves, lenses, visible light (colours and filters), infra red radiation		
Electromagnetism	92-98	Permanent and induced magnets, making an electromagnet, **motor effect, generator effect, transformers**		
Space	100-102	The solar system, **orbits**, star life cycles, evidence of the big bang		

Revision Sources	
Online	**Physical**
• GCSE pod • BBC Bitesize, • Youtube "free science lessons"	• CGP Revision Guide

Triple Chemistry – Paper 2

Topic	Page	Key Terms	Revise	Revisit
Foundation Tier				
Rates of reaction	62-68	Factors affecting rates of reaction, collision theory, reversible reactions		
Organic chemistry	69-78	Hydrocarbons, fractional distillation, alkenes, addition polymers, alcohols, carboxylic acid		
Chemical analysis	80-84	Purity, chromatography, gas tests, ion tests		
The atmosphere	86-89	The development of the atmosphere, carbon footprint, pollutants		
Using resources	91-102	Properties of materials, life cycle assessments, finite and renewable resources, potable water, waste water treatment, the Haber process, fertilisers		
Higher Tier				
Rates of reaction	67-73	Factors affecting rates of reaction, collision theory, reversible reactions **le Chatelier's principle and dynamic equillibrium**		
Organic chemistry	69-78	Hydrocarbons, fractional distillation, alkenes, addition polymers, alcohols, carboxylic acid, **condensation polymers, DNA and amino acids**		
Chemical analysis	80-84	Purity, chromatography, gas tests, ion tests		
The atmosphere	86-89	The development of the atmosphere, carbon footprint, pollutants		
Using resources	91-102	Properties of materials, life cycle assessments, finite and renewable resources, potable water, waste water treatment, the Haber process, fertilisers		

Revision Sources	
Online	**Physical**
• GCSE pod • BBC Bitesize, • Youtube "free science lessons"	• CGP Revision Guide

Triple Biology – Paper 2

Topic	CGP Page	Key Terms	Revise	Revisit
Foundation Tier				
Homeostasis and the nervous system	60-67	Homeostasis, reflex reactions and the nervous system, reaction times, the eye, the brain, correcting vision, controlling temperature		
Hormones	68-74	Blood glucose, the kidneys, puberty and the menstrual cycle, fertility, plant hormones		
Inheritance	76-83	DNA, meiosis, genetic diagrams, inherited disorders		
Evolution	84-96	Mendel, variation, evolution, selective breeding, genetic engineering, cloning, fossils, speciation, classification		
Ecology	99-119	Competition, biotic and abiotic factors, food chains, water cycle, carbon cycle, decay, global warming, maintaining biodiversity, biomass transfer, food security and farming		
Higher Tier				
Homeostasis and the nervous system	65-72	Homeostasis, reflex reactions and the nervous system, reaction times, the eye, the brain, correcting vision, controlling temperature		
Hormones	73 -82	Blood glucose, the kidneys, puberty and the menstrual cycle, fertility, plant hormones		
Inheritance	84-93	DNA, meiosis, genetic diagrams, inherited disorders		
Evolution	94-`104	Mendel, variation, evolution, selective breeding, genetic engineering, cloning, fossils, speciation, classification		
Ecology	106-124	Competition, biotic and abiotic factors, food chains, water cycle, carbon cycle, decay, global warming, maintaining biodiversity, biomass transfer, food security and farming		

Revision Sources	
Online	**Physical**
• GCSE pod • BBC Bitesize, • Youtube "free science lessons"	• CGP Revision Guide

Citizenship

Topic	Pearson Revision Guide Pages	Description	Revise	Revisit
		Paper 1		
Living together in the UK	1-16	• Features of the UKs population • Identity • The rights of individuals • Citizens and the government		
Democracy at work in the UK	22 – 41	• Political parties and political candidates • Democracy and elections • Voting systems • The role of MPs and ministers • The British constitution • Budgets and the Chancellor of the Exchequer		
Law and Justice	47 – 66	• What is law? • The legal system in the UK • The justice system in the UK • Types of courts (criminal, civil, youth etc.) and tribunals		

Support Sources

Online		Physical
Oak National Academy	Past Papers & Mark Schemes	Pearson Edexcel 9-1 Citizenship Studies Revision Guide and Workbook

Computer Science (Paper 1)

Topic	Page	Key Terms	Revise	Revisit
Components of a Computer System				
Computer systems	1	Processing data, Embedded systems, complex systems		
The CPU	2-3	Cache, 5 Registers, ALU, Fetch-Decode-Execute, Von Neumann		
Memory	4	RAM, ROM (BIOS), Volatile, Non-Volatile, Primary, Secondary		
CPU performance	5	Cores, Clock speed, Cache size, GPU, CPU		
Secondary Storage	6-7	Electronic Solid State (SSD, USB flash), Magnetic (HDD, tape, cassette), Optical (CD, DVD, Blu-ray), (Properties - SCRAPDC)		
Systems software	8	Operating System (PIPISMEF)		
Utilities software	10	Defragmentation, Compression, Encryption		
Data Representation				
Units	12	bits, nibbles, Bytes, Kilobyte, Megabyte, Gigabyte, Terabyte		
Binary	13-15	128 64 32 16 8 4 2 1 Base 2, 0 or 1, binary shifts, overflow		
Hexadecimal	16-17	Base 16, 1 2 3 4 5 6 7 8 9 A B C D E, nibbles		
Characters	18	ASCII (7 bis), Extended ASCII (8 bits) Unicode – character sets of 1s and 0s to represent characters		
Storing images	19	Pixels, Colour Depth, Resolution, ppi, Metadata (device, date stamp, location)		
Storing sound	20	Sample rate (Hz), sample size (bits), duration (s), metadata (artist, song title, track number, genre etc)		
Compression	21	Lossy (png, jpeg, mp3), Lossless (zip)		
Networks				
LAN and WAN	23	Local Area Network, Wide Area Network, Bandwidth		
Network Hardware	24	NIC's , switches, hubs, routers, bridge, WAP. Ethernet, Fibre optics, wireless (wifi, bluetooth, 3G, 4G 5G)		
Client - Server, Peer-to-Peer	25	Servers, P2P, File Managment, Backups		
Topologies	26-28	Ring, Bus, Star, Mesh. Edges and nodes.		
Protocols		Application (HTTP(S), FTP, POP, IMAP, SMTP), Transport (TCP/UDP), Internet (IP), Link/Network (wifi, ethernet). IP address, MAC address		
The Internet	29	www, Network of networks, URL, HTTP, HTTPS		
Security	30	Social Engineering, Malware, BOTS/BOTNET, SQL injections		
Issues – The Impact of Technology				
Ethical and Cultural	34	Digital Divide, Privacy, Censorship, Surveillance, Mental Health		
Environmental	38	Raw materials, E-waste, Energy usage, Renewable resources		
Legislation	39	Data Protection Act; GDPR; Copyright, Design and Patents Act; Computer Misuse Act		
Open Source and Propriety Software	40	Freeware, Shareware, Closed Source, Software Licences		

Revision Sources

- https://www.bbc.co.uk/bitesize/examspecs/zmtchbk
- https://www.youtube.com/c/craigndave (go to the OCR playlist!)
- https://isaaccomputerscience.org/topics/gcse?examBoard=all&stage=all#ocr
- GCSEPod and Seneca

- CGP Revision Guide (page ref above)
- Class book from Year 10
- Your Showbie work in Year 11

Computer Science (Paper 2)

Topic	Page	Key Terms	Revise	Revisit
Algorithms				
Computational Thinking	42	Decomposition, abstraction, algorithmic thinking , pattern recognition		
Pseudocode, ERL	43	Sequence, Instructions, unambiguous,		
Algorithms - Flowcharts	44	Terminators, Decision, Input/output, Process, Subroutine, Flow		
Algorithms - Search	45	Binary Search in an ordered list; Linear search for unordered lists		
Algorithms - Sort	49	Bubble sort; Merge sort, sub lists; Insertion sort		
Programming				
Data types	50	Integer, Real/Float, Boolean, Character, String, Casting		
Operators	51	Arithmetic operators, +, -, *, **(^), /, // (DIV), % (MOD) Assignment, =; Comparison, ==, !=, <>, <, <=, >=		
Variables	52	Assigned, Value, CONSTANTS, decent names, naming_convention		
Strings	53	Text, Concatenation (+), String Manipulation, Functions, x.upper(), x.lower(), x.length()		
Program Flow	54 - 56	IF statements, IF, ELSE, Nested IF, ELIF, Switch statements. FOR Loops, WHILE Loops, DO-UNTIL Condition-Controlled loop		
Boolean Logic	57 -59	Logic Gates, Boolean Operators, NOT, AND, OR, Truth Tables		
Randomisation	60	From Random Import RandInt (start, end)		
Arrays	61-62, 64	Data Structure, Element, One Dimensional Arrays, Update Arrays, Two Dimensional Arrays		
File Handling	63	Open, read, close, convert string to array, perform operations, convert to string, open, write/amend, close		
SQL, Storing and Searching databases	65	Records, Group Records, Select, From, Fields, Retrieve		
Sub Programs	66-67	Procedures, functions (return), called, built-in, parameters, arguments		
Design, Testing and IDE's				
Structured Programming	69	Structure diagrams (sub-programs), comments (relevant)		
Defensive Design	70	Input Validation (sausages!), Format, Authentication, Try: Except		
Testing	71	Syntax errors, Logic Errors, Runtime error; Source code, Invalid data, Test Plan, normal, boundary, erroneous; iterative testing		
Trace Tables	73	'Dry Run', change in variable values, loop or selection condition		
Translators, IDE's	74-75	High level (one-to-many), Low level (machine code, assembly language, one-to-one) Translated, Compiler (.exe), Interpreters (line by line), IDE Features, colours, auto-indent, error detection		

Notes

Revision Strategies

Is your revision FLAT?

FOCUSED	LONG-TERM	ACTIVE	TRANSFORMED
Put your phone away	Start early to cut down on stress later in the year	Engage your brain by actively creating revision resources	Transform the knowledge you want to learn into a different format
Turn the music off	Make a revision timetable and commit to it	Test yourself, get others to test you	Make flashcards Produce a timeline Record a podcast
Avoid distractions	Plan for 3 - 4 hours a week from January	Practise exam technique by writing or planning answers	Invent a mnemonic Take Cornell notes Create a mindmap
Be in the right physical place to revise	Interleave different topics	Revise what you struggle with	Design a flowchart Make a powerpoint Teach it
Be in the right frame of mind to revise			

Flash Cards

Write a question or prompt on one side of your flash card. Add colour and any pictures to help remind you of the content.

Complete the other side of your flash card with the answer or piece of information.

Mind Maps

Mind maps are a visual way to organise your information. One mind map should represent one topic.

Place the name of the topic in the middle, with sub-topics and further detail around it.

Note Taking

Start by taking your text book or revision guide, read them through whilst simplifying the text into easily manageable notes.

Then cover up those notes and test yourself by rewriting as much as you can remember.

Command Words

It is important to understand the different command words used on an exam paper.

Write a list of various command words such as explain, justify and evaluate and then add what each word is asking you to do.

Self-quizzing

Once you have made your revision resources it's time to test yourself.

Start by doing some fact recall quizzes before attempting some exam style questions.

Past Papers

When you have revised the information its time to fully test yourself using past papers.

It is important that you practise examination skills and use the official mark scheme to check your work.

Revision Strategies

Is your revision FLAT?

FOCUSED

Put your phone away

Turn the music off

Avoid distractions

Be in the right physical place to revise

Be in the right frame of mind to revise

LONG-TERM

Start early to cut down on stress later in the year

Make a revision timetable and commit to it

Plan for 3 - 4 hours a week from January

Interleave different topics

ACTIVE

Engage your brain by actively creating revision resources

Test yourself, get others to test you

Practise exam technique by writing or planning answers

Revise what you struggle with

TRANSFORMED

Transform the knowledge you want to learn into a different format

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Produce a timeline
Record a podcast
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