Year 10

Kingstone High School

Kingstone ACADEMY TRUST

SECONDARY SCHOOL KEY ASSESSMENT 3

TIMETABLE AND REVISION GUIDANCE

22ND JUNE – 3RD JULY 2026

For any queries relating to individual subjects, please email the relevant class teacher or Head of Faculty. If you have any queries relating to assessments or you would like further information regarding Key Assessments, please do not hesitate to email Alex Holmyard aholmyard@kingstoneacademy.co.uk

Year 10
Key Assessment 3 Revision Guide

Art & Design

Exam Length	4 (over 4 lessons)
Topics to Revise ***&*** ***Success Criteria***	Create a piece inspired by your chosen first artist. You should: Use your own primary sources. Experiment with materials in the style of your chosen artist. Create a personal outcome showing understanding of visual language. Students will be assessed against the GCSE marking criteria.
Resources (including useful websites	Your sketchbook – you will be allowed this during the assessment. Why experiment? - Experimenting with materials and techniques - Eduqas - GCSE Art and Design Revision - Eduqas - BBC Bitesize Developing ideas - Developing ideas - Eduqas - GCSE Art and Design Revision - Eduqas - BBC Bitesize

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Key Assessment 3 Revision Guide

Computer Science

Exam Length	1 hour 30 minutes (80 Marks)
Topics to Revise ***&*** ***Success Criteria***	Storing images and sound Secondary storage types Operating systems and utility software Impacts of technology Storage units Number types Binary addition Binary shifts Character sets Registers Computational thinking techniques Algorithms – write and refine Search and sort algorithms Trace Tables Test data Benefits of IDEs
Resources (including useful websites	Teams workbooks Craig n Dave video resources Smart revise W3schools.com/python Thursday lunchtime coding club (m12)

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Key Assessment 3 Revision Guide

Design Technology

Exam Length	50 Mins
Topics to Revise ***&*** ***Success Criteria***	Assessment test- Unit 2 Common specialist technical principles This assessment is a test of all the work we have covered this half term. -Forces and stresses -Ecological and social impact -Improving functionality -Scales of production -The six R's
Resources (including useful websites	Seneca- online free resource (select AQA exam board) BBC Bitesize

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Key Assessment 3 Revision Guide

English

Exam Length	1 hour and 45 mins (64 marks)
Topics to Revise ***&*** ***Success Criteria***	Your assessment will be a full exam paper testing your skills from the year. Section A – 1 hour– this requires you to read an extract from a 19th C fictional work. Then you will answer 4 questions. Questions 1 and 2 – quick retrieval questions Question 3 – analysing language and structure within a smaller extract Question 4 – Using the whole extract, you will EVALUATE how successfully the writer has achieved success. You need to revise: • APT MOVES and other language devices • NERD LIST and other structural devices • SITE (setting, ideas, themes, events) • Use of SPETER Section B – 45 mins – you will be given a choice of two imaginative writing tasks. You must choose ONE. • This is marked for AO5 (content/ style) and AO6 (Spag) You need to revise: • All punctuation rules • Sentence types • ADD SPICE
Resources (including useful websites	EDEXCEL English Language Paper 1 | Full Walkthrough & Model Answers! GCSE English Language - Edexcel - BBC Bitesize Your exercise books

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Key Assessment 3 Revision Guide

Food

Exam Length	**Written Assessment 60 minutes & Practical Assessment 60 minutes.**
Topics to Revise ***&*** ***Success Criteria***	Practical assessment - each student will complete a practical lesson where they will assessed on the topics that they have learnt this half term. Students will demonstrate that they can: • Work safely and hygienically • Selecting the correct equipment • Use of a cooker • Knife skills • Working at a good pace • Working independently Written assessment- each student will complete a written assessment which will check their knowledge of the topics and skills learnt so far this rotation. Students will need to know: • Cake making methods • Factors that affect food choices • Dietary needs • Proteins- sources, function, LBV and HBV, protein complementation, protein alternatives denaturing and coagulation. • Micronutrients
Resources (including useful websites	• Exercise books • BBC Bitesize https://www.bbc.co.uk/bitesize/subjects/zdn9jhv Students can also use websites such as SENECA and other online revision tools.

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Key Assessment 3 Revision Guide

French

Exam Length	1hr 20minutes split between 3 40 min exams
Topics to Revise ***&*** ***Success Criteria***	Free time activities film and technology Area where I live Environment Understanding and using different tenses – past/present/future and conditional **Success criteria** • I can understand the key points of longer written passages of French • I can write longer paragraphs in French to show my range of vocabulary and level of grammar • I can write in different time frames – past/future/conditional • I can understand detailed opinions and justify my opinions • I can use and understand imperatives/modal verb structures • I can use negatives • I have included examples of more complex language where I can.
Resources (including useful websites	Topic vocabulary for each unit in blue exercise book Work booklets from previous topics – in your folder This is school – www.thisisschool.com - listening and grammar tasks online BBC Bitesize KS4 French topic-based revision for reading and listening

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Geography

Exam Length	90 Mins
Topics to Revise ***&*** ***Success Criteria***	The work we have covered so far this year. Topics include: • Bristol – Its importance and changes within the city (eg Habourside Redevelopment), how Bristol is becoming more environmentally friendly. • Extreme Weather – Tropical Storms including Typhoon Haiyan, Somerset Levels Flood of 2013/14, Causes and impact of climate change • Development - This includes measuring development, Demographic Transition Model and Population Structures, Reasons for uneven development and what can be done to close the development gap (eg Fair Trade, Large & Small Aid projects and Tourism) • Nigeria – This includes looking at how and why Nigeria has developed, such as the changes in trading patterns and the impact of Shell Oil. • UK Economy – How and why the UK's employment structure has changed, including the growth of Science Parks such as Cambridge. It also includes the regional differences (North/South Divide) and attempts to resolve this eg HS2
Resources (including useful websites	Your main focus for revision should be your exercise book. There are revision guides and websites available. Please ensure they are for AQA GCSE Geography

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Key Assessment 3 Revision Guide

History

Exam Length	2 x 40 minute papers (paper 2 and paper 3)
Topics to Revise ***&*** ***Success Criteria***	The assessment will focus on all three topics currently covered: • Paper 2: Anglo-Saxons and Norman Conquest • Paper 2: Super Powers and Cold War • Paper 3: Weimar and Nazi Germany There will be two types of exam questions to answer for Cold War: <u>Narrative Account</u> • Analyse an event of the Cold War and put it in a chronological sequence, that shows understanding of it's causes and consequences. <u>Consequences</u> • Describe how an event of the Cold War led to further developing relations between the superpowers or causing further conflict. There will also be two types of exam questions for the Anglo-Saxons and Normans topic: <u>Describe a feature</u> • State a feature of something in Anglo-Saxon or Norman England and then explain what that looked like or its purpose in detail. <u>Explain why</u> • Three reasons given for a change or development during the Anglo-Saxon and Norman period. Use of SPEND and accurate detail to support explanations. Finally, there will be three types of exam questions to answer for the Weimar and Nazi Germany topic: <u>What is the difference between two interpretations</u> • Use two interpretations to identify the overall theme of difference. Reference to quotes from both interpretations to support the difference. <u>How far do you agree with the statement</u> • Have a balanced argument of how some people may agree or disagree with the statement. Use of interpretations to support your justification. • Include evidence (own knowledge) to support why people agree or disagree. • Give your opinion at the end, if you agree or disagree with the statement.

Resources (including useful websites	School Sharepoint folder for revision (be careful to check which topics you need to revise this time as it covers the full course): History Revision Knowledge Organisers: Please use your knowledge organisers in your exercise books (at back of book). These have the key vocabulary and information of each topic. Weimar and Nazi Germany, 1918-39 - Weimar Germany overview - Edexcel - GCSE History Revision - Edexcel - BBC Bitesize Normans - GCSE History - BBC Bitesize Superpower relations and the Cold War, 1941-1991 - The Cold War overview - Edexcel - GCSE History Revision - Edexcel - BBC Bitesize Seneca: Complete Seneca recap learning tasks to go over the core knowledge of each topic. Seneca - Learn 2x Faster Anglo-Saxon and Norman England Seneca - Learn 2x Faster Cold War Seneca - Learn 2x Faster Weimar and Nazi Germany

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Key Assessment 3 Revision Guide

Mathematics- FOUNDATION PAPER Calculator

Exam Length	2 Hours (120 marks)
Topics to Revise ***&*** ***Success Criteria***	Words into numbers Ordering decimals Shade a fraction Using greater than and less than symbols Money problem Division with money Compare deals 2D shapes and symmetry Angles in isoscele triangle, Vertically opposite angles Coordinates Midpoints Scales and real life lengths Fraction from pie chart Probability on scale Find length and width of rectangle from area and perimeter Number properties Finding values of individual items from groups Using formulae from words Finding input from an output Mode Median Temperature and negative numbers Continue a sequence Simplify expression with a negative bracket Factorise Factorise Solve two step equation, fractional answer Explain wrong method in solving equation Find a percentage of amount (calculator) Increase amount by a fraction Express one number as a percentage of another Recipes and proportion Simple Interest Use one value to find value of another in a problem Angles on parallel lines (multi step) Speed/Distance/Time problem Money problem with conversion of litres and gallons Scatter graph and correlation Use line of best fit Interpret scatter graph Estimating mean from table

	Multi step ratio problem with money Pythagoras within a square and circle, area of circle Interpret y = mx +c Equation of Parallel Lines Change subject of a formula Complete probability tree diagram and find probability SOHCAHTOA – length & angle
Resources (including useful websites	Use your Sparxmaths login to find the main revision task for this assessment. You can also use: ***Corbettmaths*** for extra videos and questions. ***ixl.com*** for explainers and other questions.

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Key Assessment 3 Revision Guide

Mathematics- HIGHER PAPER - Calculator

Exam Length	2 Hours (120 marks)
Topics to Revise & Success Criteria	Solve equation x's both sides Solve and represent inequality on numberline Factorise single bracket] Correlation, scatter graph Using line of best fit Reason with scatter graph Estimate mean from grouped frequency table Find area of circle given side lengths of a square, pythagoras Probability tree diagram Find probability from tree diagram Match graph to its equation Match parallel equations Change subject of formula Right-angled trigonometry: length & angle Ratio in context of numbers of coins and value of coins Volume, Density and Mass; using percentages Conversion of length and volume units; reasoning Simplifying expression in standard form Equivalent expressions with root and power Lengths in similar triangles Algebraic proof Box and whisker plots; compare and interpret Find surface area of a section of a hemisphere Simplify algebraic fraction Calculating with bounds in context Circle theorems Non-right-angled trigonometry and area of kites Find and use interest rate in compound interest Direct proportion; write formula Direct proportion Volume of frustum Bearings Equation of circle given centres and similar points Sketch transformation of functions Trapezium rule for volume under a curve Form quadratic equation from context Solve quadratic equation a>1
Resources (including useful websites	Use your Sparxmaths login to find the main revision task for this assessment. You can also use: ***Corbettmaths*** for extra videos and questions. ***ixl.com*** for explainers and other questions.

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Mathematics- Additional Maths

Exam Length	1 Hour (45 marks)
Topics to Revise ***&*** ***Success Criteria***	Factorise a quadratic expression, hence, solve a quadratic equation, expression completed square form, find least value. Differentiate expressions. Simplifying algebraic fractions. Pythagoras' Theorem and trigonometry in 3D. Factor and Remainder Theorem. Find coordinates and nature of stationary points. Calculate the distance and gradient of the straight line that passes through two points.
Resources (including useful websites	All teaching powerpoints and solutions to past paper question are on Teams. Use your Sparxmaths login to find the main revision task for this assessment. You can also use: ***Corbettmaths*** for extra videos and questions. ***ixl.com*** for explainers and other questions.

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Music

Exam Length	50 minutes
Topics to Revise ***&*** ***Success Criteria***	**<u>Topics to Revise</u>** <u>Area of Study 1: Musical Forms and Devices</u> • Musical devices (repetition, anacrusis, sequence, ostinato etc.) • Features of the Baroque, Classical and Romantic eras • Cadences (Perfect, plagal, imperfect and interrupted) and be able to identify them aurally and from a score • Binary, Rondo, Strophic, Theme & Variation and Ternary Form • Metre: Simple and compound time • Scales and major/minor chords. • Modulations: what it is and what they sound like • Instruments and their orchestral families • Musical elements (Melody, tonality, dynamics, texture etc.) • Musical intervals i.e. 2nd, 3rd, 4th <u>Badinerie</u> • All terms from your glossary and fact sheet e.g. ostinato, the composer's full name • Chord identification from the score e.g. finding the notes CEG and identifying that as a C major chord • Identifying key features of Badinerie e.g. sequences, inversions, cadences, ornamentation, basso continuo. You must also know how to write their location on the score e.g. Bar 12[2]. <u>Area of Study 2: Music for Ensemble</u> • Chamber music • Musical theatre • Blues & Jazz **<u>Success Criteria</u>** • Identify musical elements, musical contexts and musical language, and apply this knowledge to unfamiliar music. • Make evaluative and critical judgements about musical elements, contexts and language, using appropriate musical terminology
Resources (including useful websites	• Resources in your Microsoft Teams folder • Focus on Sound (Log in and go to the 'Lessons' tab before trying the 'Quiz' tab) • <u>GCSE Music - Area of study 1 - J.S.Bach: Badinerie for flute and String Orchestra with Harpsichord (Final movement, Orchestral Suite No.2 in B minor, BWV 1067) Eduqas - BBC Bitesize</u> - this is a fantastic resource with everything you have studied compiled together and includes quizzes and videos! BBC BiteSize for Eduqas Music: <u>GCSE Music - Eduqas - BBC Bitesize</u>

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Physical Education (GCSE only)

Exam Length	1 Hour
Topics to Revise & Success Criteria	**Paper 1:** Skeletal System – Classification of bones, role of the skeleton, function and location of major bones. Muscular System - Classification of muscles, muscle fibre types, function and location of major muscles, antagonistic pairs. Cardiovascular System- Structure and function of the heart, Types of blood vessels, components of blood and vascular shunting. Respiratory System – Structure and function, composition of air, gaseous exchange, Aerobic and anaerobic energy sources Fitness Testing – SMART Targets and goal setting, Components of fitness, Method of training and fitness testing
Resources (including useful websites	https://www.amazon.co.uk/Physical-Education-Revision-Practice-Collins/dp/0008166285 - available on ParentPay https://www.awesomebooks.com/book/9781906248406/gcse-physical-education/used?gad_source=1&gclid=Cj0KCQjwr9m3BhDHARIsANut04aHpMc7QzT4a2F8Ap0yhn9bLvSYvM2U0dr-hsqLKC8f4ghnplyBxcsaAjP4EALw_wcB - available on ParentPay https://www.pearsonschoolsandfecolleges.co.uk/secondary/subjects/pe-and-sport/edexcel-gcse-physical-education-9-1-2016/revise-edexcel-gcse-9-1-physical-education-revision-cards-1 Check TEAMS page for all PowerPoints.

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Religious Education

Exam Length	90 minutes

Topics to Revise
&
Success Criteria (Specification highlighted yellow should be your focus)

	PAPER 3 – JUDAISM - 60 Minutes Full paper
The nature of God	• God as: One/ Creator/ Law-giver/ Judge
	• The teachings about God in the Shema
	• Shekinah (nature and significance of God's Divine Presence)
Messiah (Mashiach)	• The nature and role of Messiah in Orthodox Judaism • The nature and role of Messiah in Reform Judaism
Covenant	• The meaning and significance of the Abrahamic Covenant
	• The meaning and significance of the Covenant with Moses
	• The importance of the idea of a 'Promised Land' in both Covenants
	• The importance of the Ten Commandments
Life on earth	• Beliefs and Teachings about sanctity of life (Pikuach Nefesh) in Judaism
	• The relationship between free will and duties to God and other people with particular focus on the 613 Mitzvot
The afterlife	• Beliefs and Teachings about life after death (death/ judgement/ resurrection/ soul/ focus on moral behaviour and its relationship to the after-life etc.) in Orthodox Judaism and in Reform Judaism
Worship: practices UK and Elsewhere	• The nature and importance of synagogue services, including Shabbat services, prayer and Amidah in Orthodox synagogues
	• The nature and importance of synagogue services, including Shabbat services, prayer and Amidah in Reform synagogues
	• Worship in the home, including Siddur/reciting Shema & Modeh Ani, mezuzah.
	• The importance of preparing for and celebrating Shabbat in the home.
	• Items worn for worship: tallith/tefillin/kippah
The Synagogue	• Features of different synagogues in Britain: bimah/aron hakodesh/Torah scrolls/ner tamid/seating/minyan
	• Worship, social and community functions of Orthodox synagogues in Britain
	• Worship, social and community functions of Reform synagogues in Britain
Festivals: practices in Britain and elsewhere	o The origins, meanings and celebrations of: Rosh Hashanah Diversity of practice between different Jewish traditions in how these festivals are observed – FOR ALL FESTIVALS
	· The origins, meanings and celebrations of: Yom Kippur
	· The origins, meanings and celebrations of: Pesach
	· The origins, meanings and celebrations of: Sukkot
Rituals	• The role and importance of Brit Milah: Covenant/identity/features of the ceremony.
	• Bar Mitzvah: Law/personal responsibilities/ features of the ceremony
	• Different Orthodox and Reform views of Bat Mitzvah and Bat Chayil. Features of the ceremonies
	• Marriage: features of the ceremony
	• Mourning rituals: onan/ kaddish/ sheva/yar - zheit
	• Role of the Chevra Kaddisha
Daily life	• The significance of the Tenakh in daily Jewish life

	• The significance of the Talmud in daily Jewish life
	• Dietary laws: kosher/ treyfah/ prohibition of milk and meat/ requirements of a kosher kitchen • Keeping kosher in Britain: benefits/challenges
Section	**PAPER 2 – CHRISTIANITY 30 minutes – Beliefs**
The nature of God	• Omnipotent, Omnibenevolent, Problem of Evil
	• Trinity – God as three persons – Father, Son and Holy Spirit
Creation	• Creation of the universe • How the texts are differently interpreted literal/non-literal • Human nature and role of humans • Word and Spirit in the creation of the universe (Jesus)
Jesus Christ	• Incarnation – God as a human in Jesus
	• Crucifixion of Jesus
	• Salvation – spiritually saved from sin • Atonement – making up for the sins of humankind
	• Resurrection of Jesus • Ascension of Jesus
Salvation	• Word of God (Law) • Inspiration and Revelation -God showing Himself to humankind • Different interpretations of biblical texts • Other sources of authority e.g. conscience, free will, religious leaders etc. • Sin – deliberately going against God • Grace and Spirit • The role of the Holy Spirit in Evangelical worship • CHRISTIAN AFTERLIFE IS NOT TESTED AS NOT YET TAUGHT

Year 10
Key Assessment 3 Revision Guide

Science - BIOLOGY

for HIGHER AND FOUNDATION PAPERS

Exam Length	**30 minutes**
Topics to Revise & Success Criteria	📌 **Biology Paper 1 – One Page Checklist** 🔬 **1. Key Concepts in Biology** ✅ **Cell structure**: animal, plant, bacteria (know functions) ✅ **Specialised cells**: sperm, egg, ciliated (adaptations) ✅ **Microscopy**: light vs electron, magnification ✅ **Size & maths**: standard form, units (milli, micro, nano) ✅ **Enzymes**: lock & key, denaturation, factors (temp, pH, conc) ✅ **Required practical**: pH & enzyme activity ✅ **Transport**: diffusion, osmosis, active transport ✅ **Required practical**: osmosis in potatoes (% mass change)
	🔁 **2. Cells and Control** ✅ **Mitosis stages + purpose** (growth, repair, identical cells) ✅ **Cancer** = uncontrolled cell division ✅ **Growth**: • Animals → division + differentiation • Plants → division + elongation ✅ **Stem cells**: types, uses, risks ✅ **Nervous system**: neurones, synapses, reflex arc
	📌 **3. Genetics** ✅ **Meiosis** → 4 different haploid cells ✅ **DNA structure** (double helix, base pairs) ✅ **Gene vs genome** ✅ **Genetic vocabulary** (allele, dominant, genotype etc.) ✅ **Inheritance**: • Punnett squares • Ratios, probability • Pedigree charts ✅ **Sex determination (XX/XY)** ✅ **Variation**: genetic vs environmental ✅ **Human Genome Project (uses)**
	📌 **4. Natural Selection & Genetic Modification** ✅ **Darwin's theory** (natural selection) ✅ **Antibiotic resistance** ✅ **Human evolution evidence** (fossils, tools) ✅ **Selective breeding** ✅ **Genetic engineering**: • Restriction enzymes, ligase, vectors ✅ **Evaluate** risks + benefits •

	🦠 **5. Health, Disease & Medicine** ✅ **Health definition (WHO)** ✅ **Communicable vs non-communicable** ✅ **Pathogens + diseases** (cholera, TB, malaria, HIV) ✅ **Spread & prevention methods** ✅ **Immune system**: • Barriers, antibodies, memory cells • Vaccination ✅ **Antibiotics** (bacteria only) ✅ **Drug testing stages** ✅ **Lifestyle factors**: • Diet, exercise (BMI) • Smoking, alcohol ✅ **Treatments**: medication, surgery, lifestyle
	✅ **Maths & Skills (ALL TOPICS)** ✅ Standard form & unit conversions ✅ Percentages & ratios ✅ Rates (enzymes, reactions) ✅ Graphs + data interpretation ✅ Probability (genetics
Resources (including useful websites	Year 9 and Y10 exercise books. **www.seneca.com** **www.Educake.co.uk,** **Cognito - YouTube**

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Key Assessment 3 Revision Guide

Science - CHEMISTRY

for HIGHER AND FOUNDATION PAPERS

Exam Length	**30 minutes**
Topics to Revise & Success Criteria	⚛️ **1. Atomic Structure & Periodic Table** ✅ **Atomic model**: Dalton → modern (protons, neutrons, electrons) ✅ Structure of atom (nucleus + shells) ✅ Charges & masses of subatomic particles ✅ **Atomic number & mass number** ✅ Calculate protons, neutrons, electrons ✅ Isotopes (same protons, different neutrons) ✅ Relative atomic mass (including calculation) ✅ **Periodic table**: • Mendeleev's arrangement & predictions • Atomic number ordering • Groups & periods ✅ Metals vs non-metals (position + properties) ✅ Electronic configuration (first 20 elements)
	🔗 **2. Bonding & Structure** ✅ **Ionic bonding** (electron transfer, ions, dot & cross) ✅ Write **formulae of ionic compounds** ✅ Ionic lattice structure & properties ✅ **Covalent bonding** (shared electrons, molecules) ✅ Draw simple molecules (H_2, H_2O, CO_2, CH_4, O_2) ✅ **Types of substances**: • Ionic • Simple molecular • Giant covalent (diamond, graphite) • Metallic ✅ Properties explained by bonding: • Melting/boiling point • Conductivity • Solubility ✅ **Carbon structures**: diamond, graphite, graphene ✅ Metals: conductivity, malleability
	🧮 **3. Quantitative Chemistry** ✅ Relative formula mass (Mr) ✅ Moles calculations (mass ↔ moles ↔ particles) ✅ Avogadro's number (6.02×10^{23}) ✅ Empirical & molecular formula ✅ Percentage composition ✅ Balanced equations & **conservation of mass** ✅ Calculate masses from equations

	✅ Concentration (g/dm³) ✅ Limiting reactants & yields ✅ Stoichiometry (ratios in equations)
	🧊 **4. States of Matter & Separating Mixtures** ✅ Particle model (solid, liquid, gas) ✅ Changes of state (melting, boiling, condensing) ✅ Energy & movement changes ✅ Pure substances vs mixtures ✅ Identify purity from **melting point data** ✅ Separation methods: • Filtration • Crystallisation • Simple distillation • Fractional distillation • Chromatography ✅ **Chromatography**: interpret results + Rf values ✅ **Required practical**: chromatography & distillation ✅ Potable water (filtration, chlorination, distillation)
	⚗️ **5. Chemical Change (Acids & Electrolysis)** ✅ Acids = H^+, alkalis = OH^- ✅ pH scale & indicators ✅ Strong vs weak, dilute vs concentrated ✅ Reactions of acids with: • Metals • Oxides • Hydroxides • Carbonates ✅ Tests: • Hydrogen (squeaky pop) • CO_2 (limewater) ✅ Neutralisation (acid + base → salt + water) ✅ Making salts: • Insoluble base method • Titration (acid + alkali) ✅ **Required practical**: copper sulfate crystals & titration ✅ Solubility rules & precipitation
	⚡ **Electrolysis** ✅ Electrolysis = breaking down ionic compounds ✅ Movement of ions (cations → cathode, anions → anode) ✅ Products at electrodes (know key examples) ✅ Half equations ✅ Oxidation (loss), reduction (gain) ✅ Electrolysis of copper sulfate & purification ✅ **Required practical**: electrolysis
	🔥 **6. Extracting Metals & Equilibria** ✅ Reactivity series (most → least reactive) ✅ Displacement reactions

	✅ Extraction methods: • Carbon reduction • Electrolysis ✅ Oxidation (gain of oxygen), reduction (loss) ✅ Recycling metals (pros & cons) ✅ Life cycle assessment
	⚖️ **Reversible Reactions** ✅ Reversible reactions (⇌) ✅ Dynamic equilibrium ✅ Haber process: • 450°C, 200 atm, iron catalyst ✅ Effects of: • Temperature • Pressure • Concentration
	✅ **Maths & Exam Skills** ✅ Moles calculations ✅ Ratios & balanced equations ✅ % composition & yield ✅ Graphs & data interpretation ✅ Rf values (chromatography) ✅ Standard form
Resources (including useful websites	Year 9 and Y10 exercise books. **www.seneca.com** **www.Educake.co.uk**, **Cognito - YouTube**

Year 10
Key Assessment 3 Revision Guide

Science - PHYSICS
for HIGHER AND FOUNDATION PAPERS

Exam Length	**30 minutes**
Topics to Revise ***&*** ***Success Criteria***	📏 **1. Key Concepts** ✅ Use **SI units** (kg, m, s, N, J, etc.) ✅ Convert units (e.g. hours → seconds) ✅ Prefixes: kilo, milli, micro, nano ✅ Use **standard form** & significant figures 🚗 **2. Motion & Forces** ✅ Scalars vs vectors (speed vs velocity) ✅ **Equations**: • Speed = distance ÷ time • Acceleration = Δvelocity ÷ time • $v^2 - u^2 = 2as$ ✅ **Graphs**: • Distance–time → speed (gradient) • Velocity–time → acceleration (gradient), distance (area) ✅ Newton's Laws: • 1st: constant velocity if no resultant force • 2nd: F = ma • 3rd: equal & opposite forces ✅ Weight = mg (g ≈ 10 N/kg) ✅ Circular motion → centripetal force ✅ Momentum = mv ✅ Force = change in momentum ÷ time ✅ Stopping distance = thinking + braking ✅ Factors: speed, mass, reaction time, friction 🔋 **3. Conservation of Energy** ✅ GPE = mgh ✅ KE = ½mv² ✅ Energy is **conserved (cannot be created/destroyed)** ✅ Energy transfers & stores diagrams ✅ Energy is **dissipated (wasted as heat)** ✅ Reduce waste (insulation, lubrication) ✅ Efficiency = useful ÷ total energy ✅ Energy resources: • Renewable vs non-renewable • Know advantages/disadvantages

🌊 **4. Waves**

✅ Waves transfer **energy, not matter**

✅ Key terms:

- Frequency, wavelength, amplitude, wave speed

✅ Wave equation:

→ speed = frequency × wavelength

✅ Types of waves:

- Transverse (EM waves)
- Longitudinal (sound)

✅ Refraction = change in speed & direction

✅ Required practical: wave measurements

🌈 **5. Light & EM Spectrum**

✅ EM waves all:

- Transverse
- Same speed in vacuum

✅ Order:

Radio → Microwave → IR → Visible → UV → X-ray → Gamma

✅ Frequency ↑ = energy ↑ and danger ↑

✅ Uses + dangers:

- Microwave (heating)
- UV (skin damage)
- X-ray/gamma (ionising radiation)

✅ Refraction in glass (required practical)

☢️ **6. Radioactivity**

✅ Atom structure (nucleus + electrons)

✅ Isotopes = different neutrons

✅ Radiation types:

- Alpha (low penetration, high ionising)
- Beta
- Gamma (high penetration)

✅ Nuclear equations (balance mass & charge)

✅ Half-life = time to halve activity

✅ Activity measured in **Becquerels (Bq)**

✅ Background radiation (natural + man-made)

✅ Risks: mutation, cancer

✅ Safety:

- Limit exposure
- Shielding

✅ Contamination vs irradiation

✅ **Maths & Exam Skills**

✅ Use equations correctly (rearrange + units)

✅ Interpret graphs (gradients + area)

✅ Standard form & significant figures

✅ Ratios, conversions, calculations

🎯 **Exam Focus**

	✅ Learn key **equations** off by heart ✅ Practice **graph questions** ✅ Revise **required practicals** ✅ Use correct **units in every answer**
Resources (including useful websites	Year 9 and Y10 exercise books. **www.seneca.com** **www.Educake.co.uk**, **Cognito - YouTube**

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Sport Science (Cambridge National)

Exam Length	1 hour
Topics to Revise ***&*** ***Success Criteria***	The description and explained importance of nutrients on their role within a healthy balanced diet. A wide range of example of food sources of nutrients. Explain the importance of nutrition before, during and after exercise for each sporting activity. Outline a range of nutritional requirements for each sporting activity. Explain why some foods are ideal and what foods limit sporting activity. Create a meal plan that meets the needs of an individual. Measure the impact of the nutrition plan in relation to individual's needs. Describe ideas for improving the nutrition plan and justify improvements. Discuss in detail the detrimental effects of overeating, under eating and dehydration, with clear and detailed references to sports performance. Discuss in detail how nutrition can be positively managed by overeating, under eating and dehydration, with clear and detailed references to sports performance.
Resources (including useful websites	Check TEAMS page for PowerPoints that have included key content. https://thepeclassroom.com/cnats-sport-science-revision-resources/

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Key Assessment 3 Revision Guide

Drama

Exam Length	Devised Group Performance 10-15 minutes
Topics to Revise ***&*** ***Success Criteria***	Performance of your devised 'Mental Health' performance- this is a GCSE Practical exam and is 40% of your Drama GCSE. You will be given a mark out of 15 for: Performers will be assessed on their ability to realise artistic intentions through the: understanding of style, genre and theatrical conventions.
Resources (including useful websites	GCSE Drama - Edexcel - BBC Bitesize

Year 10
Key Assessment 3 Revision Guide

Business Studies

Exam Length	1 hour
Topics to Revise ***&*** ***Success Criteria***	*Theme 1.1: Enterprise and Entrepreneurship* • 1.1.1 The Dynamic Nature of Business • 1.1.2 Risk and Reward • 1.1.3 Enterprise and Entrepreneurs • How to Answer a Range of Examination Questions *Theme 1.2: Spotting an Opportunity* • 1.2.1 Customer Needs • 1.2.2 Market Research • 1.2.3 Market Segmentation • 1.2.4 Competitive Environment *Theme 1.3: Putting an Idea into Practice* • 1.3.1 Aims and Objectives • 1.3.2 Revenue, Costs and Profit • 1.3.3 Cash and Cash Flow • 1.3.4 Sources of Finance *Theme 1.4: Making the Business Effective* • 1.4.1 Options for Small Start-Up Businesses • 1.4.2 Business Location • 1.4.3 The Marketing Mix • 1.4.4 Business Plans *Theme 1.5: Understanding External Influences* • 1.5.1 Business Stakeholders • 1.5.2 Technology and Business • 1.5.3 Legislation and Business • 1.5.4 The Economy and Business • 1.5.5 External Influences Understanding how to write answers for the following question types: - 3 markers - 6 mark discuss questions - 6 mark analyse questions - 9 markers - 12 markers
Resources (including useful websites	GCSE Business - Edexcel - BBC Bitesize Edexcel GCSE Business 2017 Revision Edexcel GCSE Business Studies Past Papers - Revision World