

Faculty Revision Topics for Year 10 – 2015 Summative Examinations

<p>Design and Technology</p> <p>Graphic Products Promoting firework safety for children</p> <p>Electronic Products Temperature warning devices for use in retail outlets</p> <p>Product Design Promotional packaging for a drinks container</p> <p>Engineering Barbecues and associated equipment</p> <p>Food Technology Products for consumers with special dietary needs. Sweet and savoury biscuit products.</p> <p>Textile Technology 'Products for teenagers inspired by the theme 'fairground' which will include a range of decorative techniques.'</p>	<p>English</p> <p>Reading: Identifying the main points in texts. Analysing how writers use language for effect. Analysing how writers organise texts for effect. Analysing the way writer use presentational features for effect.</p> <p>Writing: Writing for different audiences and purposes. How to use a range of punctuation: commas, apostrophes, colons, semi-colons, brackets, exclamation marks, question marks, speech marks. How to use a variety of sentence structures for effect. Organising ideas into paragraphs. Organising writing effectively so that it has a clear structure. Using literary techniques.</p>
<p>Biology:</p> <p>Diet & Metabolic Rate Factors affecting health Evaluating Lifestyle and Diet Fighting Disease past and present including vaccinations, drugs The nervous system including synapses and reflexes Hormones Menstrual cycle Controlling fertility Plant hormones Adaptations Competition and Environmental Change Measuring Environmental change Pyramids of Biomass Energy transfer and Decay The Carbon cycle Variation Genes, Chromosomes and DNA Reproduction Cloning Genetic Engineering Evolution</p>	<p>Chemistry:</p> <p>Atoms & Elements Periodic Table Electron shells Compounds Balancing equations Uses of Limestone Extracting metals from rocks including impacts of this Properties and uses of metals Alloys Crude oil (including fractional distillation, properties & uses of it, Environmental problems with using it, Cracking) Alkenes & Ethanol Polymers Plant oils Emulsions Plate tectonics The Earth's Structure Evolution of the Earth's Atmosphere Life, resources and Atmospheric change</p>
<p>Physics:</p> <p>Heat radiation (Conduction, convection, radiation) Kinetic theory Condensation & Evaporation Rate of heat transfer Energy Efficiency in the home Specific Heat Capacity Energy Transfer Efficiency of machines Energy transformation Diagrams Cost of Electricity Choosing Electrical appliances Energy Sources & Power Stations Renewable energy sources (how the form electricity, comparisons between and effects on the environment) Electricity and the national grid Waves Refraction and Diffraction Electromagnetic Spectrum and the uses Sound Waves The origin of the Universe</p>	<p>French</p> <p>The first GCSE speaking exam will be during the week beginning 18 May. The teacher will provide the task and lesson preparation time along with further guidance prior to the exam. Listening + reading past papers – students should revise vocabulary from the topics that they have covered this year. In particular they should ensure they know the following; numbers (including fractions), days, months, seasons, alphabet, time, question words, colours, time phrases and recognising tenses. Students should use their purple EDEXCEL revision guide + workbook, CGP vocab book + CD Rom, blue handbook + pink grammar book.</p>

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<p>Humanities</p> <p>History</p> <p><u>Medicine Through Time</u></p> <ul style="list-style-type: none"> • Ancient World • Dark Ages, Middle Ages and Renaissance • 19th and 20th Centuries: fighting disease, surgery and nursing • The various factors which caused the key changes through time <p>Geography</p> <ul style="list-style-type: none"> • Coasts • Economic Development • Settlement <p>RE</p> <ul style="list-style-type: none"> • Religion and Medicine • Religious expression 	<p>Physical Education: GCSE</p> <ul style="list-style-type: none"> • Go through 'RAG' sheets and work on 'red and amber' areas of weakness. • Complete past papers: http://www.aqa.org.uk/subjects/physical-education/gcse/physical-education-4890/past-papers-and-mark-schemes • Use the mark schemes to assess yourself. • Go through the revision power point (sent out before the mock). • Timed 8 mark questions. <p>Familiarise yourself with the scenario.</p>
<p>Computer Science</p> <p>Problem solving and developing code Data types (integers, strings, floating point) Programming constructs (sequence, selection, repetition) Arithmetic, relational, AND, OR and NOT operators Flowcharts and pseudocode Data structures (lists, arrays) Subprograms and functions Testing, errors and debugging Variables and constants Cartesian co-ordinates Graphical User Interfaces (GUI) Reading and writing to files Binary (unsigned, sign and magnitude, two's complement) Data representation (characters, bitmaps, analogue) Compression and encryption</p>	<p>ICT</p> <p>Home entertainment systems Online shopping Storage devices Connectivity Transferring data Security and e-safety Legislation Recycling of equipment Features of computing devices Communication methods Health and safety Types of software Digital divide Banking services</p>
<p>Expressive Arts</p> <p>Music</p> <p>Complete a full GCSE practice paper</p>	

Mathematics

FOUNDATION WORK

Handling data

Tallying, collecting and grouping data
 Mean, mode and median
 Scatter diagrams I
 Line graphs and pictograms
 Probability
 Questionnaires
 Measures of central tendency and measures of spread
 Probability
 Pie charts and frequency diagrams
 Scatter diagrams II and Cumulative frequency diagrams

Space

Angles & Area
 Measures
 Polygons
 Volume
 Co-ordinates and bearings
 Three Dimension
 Symmetry & Transformations
 Pythagoras Theorem
 Basic Trigonometry

Number:

Rounding and estimating
 Negative numbers
 Prime numbers, factors and multiples
 Significant figures
 Ratio and proportion
 Long multiplication and division
 Fractions
 Decimals
 Percentages
 Sequences
 Powers and standard index form

Algebra:

Indices eg 2^2
 Graphs
 Proportion
 Flow Charts
 Sequences
 Inequalities
 Basic algebra
 Solving equations

Number, Data, Algebra, Space & Shape

Handling data

Tallying, collecting and grouping data
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 Scatter diagrams I
 Line graphs and pictograms
 Probability
 Questionnaires
 Measures of central tendency and measures of spread
 Probability
 Pie charts and frequency diagrams
 Scatter diagrams II and Cumulative frequency diagrams

Space

Angles & Area
 Measures
 Polygons
 Volume
 Co-ordinates and bearings
 Three Dimension
 Symmetry & Transformations
 Pythagoras Theorem
 Basic Trigonometry
 Graphs of $\sin x$, $\cos x$ and $\tan x$
 Sine and cosine rules and area of a triangle
 Circle Theorem
 Congruency
 Loci

Number:

Rounding and estimating
 Negative numbers
 Prime numbers, factors and multiples
 Significant figures
 Ratio and proportion
 Long multiplication and division
 Fractions
 Decimals
 Percentages
 Standard Form
 Surds
 Sequences
 Powers and standard index form

Algebra:

Indices eg 2^2
 Graphs
 Proportion
 Flow Charts
 Sequences
 Inequalities
 Basic algebra
 Solving equations
 Quadratic equations
 Simultaneous equations