

YEAR 7 REVISION TOPICS

BIOLOGY

CELLS
● Basic unit of life. Animal and Plant cells, structure, similarities and differences and functioning of all parts.
● Light microscope - Parts and Use
● Life Processes
● Cell specialisation
● Cell organisation -Tissue-Organ- Organ System
FLOWERING PLANT REPRODUCTION
● Flower structure and functions of parts
● Pollination -Insect/Wind comparison
● Fertilisation
● Seeds - Structure and Dispersal
● Fruits - Dispersal agents - adaptations
VARIATION & CLASSIFICATION
● Genetic and Environmental Variation
● Reasons for Classification
● Binomial system
● Kingdoms - classification features
● Phylum Arthropod classification features and those of its classes, including:-
● Class Insect
● Phylum Vertebrate - classification features
● Classification features of the main plant groups
FITNESS & HEALTH (part 1) Lungs, Breathing and Smoking
● Lung structure and function
● Gas Exchange - Alveoli - structure, function and adaptations

CHEMISTRY

The following topics are to be assessed and additional information on each can be found in the RGS Chemistry specification as shared with you via our Google Site [Chemistry Year 7 Revision](#). This includes interactive revision tools for each topic as listed below

- Introduction and Safety
- Particle Theory
- Elements, Mixtures and Compounds
- Solubility and Separation Techniques

ENGLISH

Romantic Poetry

Y7 students will cover four Romantic poems in preparation for their End of Year exam. They will cover the key historical context of the time period and relevant information about the poets. They will critically analyse each poem and will need to feel confident in exploring the language, form and structure. Just ONE poem will appear in the end of year exam and students will need to explore the given theme in the question presenting a strong literary argument with a critical academic register and a range of ideas.

The key poems studied are:

- 'The Tyger' by William Blake
- 'Ozymandias' by Percy Bysshe Shelley
- 'London' by William Blake
- 'Composed Upon Westminster Bridge' by William Wordsworth

Refer to the Department Website for more information:

<https://sites.google.com/rgshw.com/rgs-english/ks3/year-7>

GEOGRAPHY

Please use the checklist below to direct your revision:

- Topic 1 - What is Geography
 - Definitions of physical and human geography
 - Names and locations of major UK cities
 - Using Trend Evidence Anomaly (TEA) to describe distributions
 - Names and distribution of UK motorways
 - Names and distribution of UK National Parks
 - Reasons for people to visit National Parks
- Topic 2 - Map Skills
 - Compass directions
 - Map symbols
 - 4-figure grid references
 - 6-figure grid references
 - Height on maps (layer shading, spot heights and contour lines)
- Topic 3 - Local Geography and Settlement
 - Settlement types and structure
 - The Burgess Model, including urban land use
 - Identifying zones of the Burgess Model using OS maps
- Topic 4 - Coasts
 - Weathering processes
 - Coastal (marine) erosion processes
 - Coastal (marine) transport processes (including longshore drift)
 - Formation of headlands and bays
 - Formation of coastal erosional landforms, including caves, arches, stacks and stumps
 - Formation of coastal depositional landforms, including spits, bars and tombolos
 - How hard and soft engineering strategies can be used to manage coastal erosion

The end of year exam is made up of questions you have already answered on end of topic tests.

HISTORY

Please revise the big enquiry questions you have been studying since September:

- Why is 1066 one of the most famous dates in English history?
- Who had power: the Crown or the Church?
- Does King John deserve his terrible reputation?
- Was it all mud, muck and misery for medieval peasants?
- What happened when two worlds clashed? European and Native American encounters.

MATHS

Topic	Sub-Topics
HALF TERM 1	
Number Topics	Factors and Multiples Finding HCF and LCM Problems
	Positive and Negative Numbers Arithmetic of Negative Numbers
	Primes, Powers and Roots Order of Operations (BIDMAS)
	Non-Calculator Arithmetic Strategies and Word Problems Using a Calculator
HALF TERM 2	
Algebra	Collecting like terms Simplifying Expressions Using Formulae (includes substitution)
	Forming expressions: Perimeter of Rectangles and Rectilinear Composite Shapes. Area of Rectangles and Rectilinear Composite Shapes.
	Forming and Solving Equations
Shape	Perimeter and Area of Triangles, Rectangles, Parallelograms and Trapeziums
	Area of Composite Shapes
HALF TERM 3	
	Naming, Drawing and Properties of 3D Shapes Volume of Cubes, Cuboids and Composites (also as algebraic expressions) Surface Area and Volume of Cubes, Cuboids and Composites (also as algebraic expressions)
	Statistics
	Decimal Arithmetic
	Types of Data and the Mean Mode, Median and Range of Listed Data
	Adding and Subtracting Decimals Strategies for Multiplying and Dividing Decimal Numbers Rounding and Estimation
HALF TERM 4	
Fractions	Converting between Improper and Mixed Numbers Adding and Subtracting Fractions Multiplying and Dividing Fractions
	Probability
	Angles
	Calculating Probabilities 2D Sample Spaces Experimental Probability
	Measuring and Drawing Angles Angles around a point and in Triangles, angles in quadrilaterals
HALF TERM 5	
Angles (cont.)	Angles around Parallel Lines
Sequences	Sequences Term to Term Relationships and Missing Terms Linear nth Term

	Other Sequences
Graphs	Coordinates in 4 Quadrants Graphs of the form $y = mx + c$ Graphs in the form $x \pm y = a$
Ratio	Simplifying Ratios Sharing Quantities and Ratio Problems

PHYSICS

TOPIC	CONTENT
STATIC AND CURRENT ELECTRICITY	Static electricity Conductors and insulators Understanding charge and current Calculating current Connecting ammeters Rule for current in series and parallel circuits
FORCES AND MOTION	Names of forces Contact and non-contact forces Mass and weight Force diagrams Speed distance time equations Distance time graphs Balanced and unbalanced forces and their effects on motion
SPACE	The solar system The Sun and time Phases of the Moon Eclipses Night, day and seasons