



Year 11 Revision – Biology/Chemistry/Physics

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Exam Board:	EDEXCEL		
	BIOLOGY	CHEMISTRY	PHYSICS
Topics on both papers	Key concepts in biology	Atomic structure and periodic table Covalent, ionic bonding and types of substances Calculations involving masses	All the equations
Paper 1 exam date:	15 TH May afternoon	17 May Morning	23 May Afternoon
Paper 1 length:	1 hour 45 minutes	1 hour 45 minutes	1 hour 45 minutes
Paper 1 topics:	Cells and control Genetics Natural selection and genetic modification Health, disease and the development of medicines	States of matter, separating substances, Acids and alkalis Electrolysis, metals, reversible reactions and equilibria, alloys and corrosion Quantitative analysis Calculations involving gases Chemical and fuel cells	Motion Forces and motion Conservation of energy Waves Light and the electromagnetic spectrum Radioactivity Astronomy
Paper 2 exam date:	11 June Morning	13 June Morning	15 June Morning
Paper 2 length:	1 hour 45 minutes	1 hour 45 minutes	1 hour 45 minutes
Paper 2 topics:	Plant structures and their functions Animal coordination, control and homeostasis Exchange and transport in animals Ecosystems and material cycles	Groups in periodic table Rates of reaction Energy changes in chem reactions Fuels Earth and atmospheric science Hydrocarbonm alcohols, carboxylic acids, polymers Qualitative analysis: ion testing, bulk and surface properties of matter inc nanoparticles	Energy – forces doing work Forces and their effects Electricity and circuits Static electricity Magnetism and motor effect Electromagnetic induction Particle model (Gas laws) Forces and matter

Key Revision Websites:

- QUIZLET – self quizzing website with lots of EDEXCEL related quizzes
- BBC bitesize – revision videos
- <https://studywise.co.uk/gcse-revision/> studywise has lots of links
- <http://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html> is the exam board website.

Science Google Classroom Codes:

- Biology: mizqhem
- Chemistry: 28h7s2
- Physics: sgcp0k

Science Revision Strategy 1:

Create cue cards – summarise sections onto small index cards and test yourself on them each day.

Use them to create summaries including key diagrams key processes in bullet pointed lists and key words and definition.

Science Revision Strategy 2:

Quiz cards – on google classroom is a set of quiz cards and also quick quiz questions to make your own.

Use card or paper to make your own quiz cards that you can test yourself or someone can test you on.

Stage 1 – weekly quizzing

Take 20 cards and quiz yourself for a week. (Set 1 – daily)

Remove the ones you get right at the end of the week (Set 2 weekly) and add more to make up the set of 20. Repeat this each week.

Stage 2 - fortnightly

At the end of every other week – test yourself on the cards removed the previous week.

If you get them right – put them aside to review in a month (Set 3 – monthly)

If you get them wrong – add them back to Set 1 – daily

Stage 3 - monthly

Every month – take the cards in Set 3 and review and test yourself.

If you get them right – keep them in the monthly set 3

If you get them wrong – put them back into the Set 2 – weekly group.

The idea is to move cards up to set 3, while only introducing new ones on a weekly basis.

The fortnightly testing is to practice those that you may have forgotten until you place them in the monthly Set 3

The Set 3 – monthly group – this is constant review to check they recall them.

Science Revision Strategy 3:

MATHEMATICS MAKES UP:

20% of biology exam, 30% of chemistry exam, 40% of physics exam

All should know

Prefixes such as nano, micro, milli
How to use standard form
Calculating the gradient of a graph
Calculate volume and area.

These are key calculations that students must know how to do. They will not be given formulae in an examination.

Biology -

Magnification calculations	Rate of reactions
Body Mass index	Waist to hip ratio
Percentage change in mass	Interpreting percentile charts
DNA base pair matching	Normal distribution charts
Cross sectional areas of circles	Inverse square laws (H)
Rate of diffusion calculation	Cardiac output
Percentage Energy transfer	Rate of decomposition

Chemistry -

key chemical formulae, empirical formulae	calculating masses involved in reactions
Balancing equations	Mole calculations
Ionic equations and half equation	Rf values
Yield calculations	Relative formula mass
	Rates of reaction

Relative atomic mass calculations (H)	Concentration calculations (H)
Titration calculations (H)	Molar gas volume (H)
Bond energy calculations (H)	

Physics -

see attached equation sheet - students MUST be able to recall these and use them

For additional copies:

<http://qualifications.pearson.com/content/dam/pdf/GCSE/Science/2016/teaching-and-learning-materials/GCSE-9-1-Sciences-Physics-equations.pdf>