






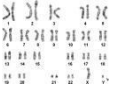




	Biological Molecules 	Cells 	Exchange 	Genetics 
Y12 Topics	Polymers Carbohydrates Lipids Proteins Nucleic acids ATP Water Inorganic ions	Cell structure Cell division Membrane transport Cell recognition Immune system	Surface area : volume Gas exchange Digestion Mass transport	DNA Protein synthesis Mutation Meiosis Adaptation Classification Biodiversity
Links to GCSE	Monomers & polymers Proteins & amino acids Digestive enzymes Enzyme lock and key model Temperature & reaction rates DNA & chromosomes Respiration Ions	Structure of animal, plant and yeast cells Structure of bacterial cells Mitosis Cell membranes Diffusion, osmosis and active transport Immune system & vaccination	Respiratory system Cells, tissues and organs Digestive system Circulatory system Transport in plants	Chromosomes and genes Ribosomes Mutations Meiosis & fertilisation Natural selection, evolution & speciation Variation

	Energy Transfers 	Responses 	Genetics & Ecosystems 	Gene Expression 
Y13 Topics	Photosynthesis Respiration Energy & ecosystems Nutrient cycles	Detection of stimuli Nervous coordination Skeletal muscles Homeostasis	Inheritance Populations Evolution & speciation Populations in ecosystems	Mutations Control of gene expression Genome projects Gene technologies

Links to GCSE	Photosynthesis Factors affecting photosynthesis Aerobic and anaerobic respiration Pyramids of biomass Food chains and webs Carbon cycle	Nervous system & reflexes Neurones & synapses Receptors & stimuli Tropisms & auxin Effect of exercise on heart rate Control of temperature, sugar, water and ion levels Hormones kidneys	Alleles Genetic disorders Genetic diagrams Variation Natural selection, evolution & speciation Competition Factors affecting organisms Sampling with quadrats & evaluating methods	Mutation Differentiation Stem cells & their uses Genetic engineering GM crops Ethical issues with cloning and GM Genetic disorders
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What can I use to help me prepare for A-level?

- GCSE revision guides - use to ensure you have the foundation knowledge needed.
- CGP 'Head Start to Biology' book – perfect for bridging the gap between GCSE and A-level knowledge. Can be bought online for approximately £5.
- AQA website <http://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402> – if you want to find out more about what you'll be studying and how you will be assessed.

Useful Websites

Though not an exhaustive list, these are some of the websites which you might find useful.

- <http://www.s-cool.co.uk/a-level/biology> - Revision website.
- <http://www.biologyguide.net/> - Revision website.
- <http://www.biologymad.com/> - Revision website.
- <http://www.revisiontime.com/aBio.htm> - List of useful web links for particular topics.
- <http://www.cellsalive.com/> - Animations and puzzles about cells.

Independent Study Task

In Biology you will meet a lot of new language which will seem completely foreign to you to begin with. We are asking you to complete a task based around cells which will introduce you to some of this terminology.

You need to produce a poster or posters summarising the structure of a eukaryotic cell, key information you need to include are:

- Labelled diagram of an plant cell
- Labelled diagram of an animal cell



- Descriptions of the function of each organelle, to include the cell-surface membrane, nucleus, mitochondria, chloroplasts, golgi apparatus and golgi vesicles, lysosomes, ribosomes, rough endoplasmic reticulum and smooth endoplasmic reticulum, cell wall, cell vacuole (in plants)

You will need to research this using the internet. Information should be in your own words and not copied and pasted. You should also include a list of references stating the sources you used to help you.

Extension: include a labelled diagram of a prokaryotic cell, and compare and contrast this with the structure of eukaryotic cell

The poster(s) should be handed in during your first Biology lesson.