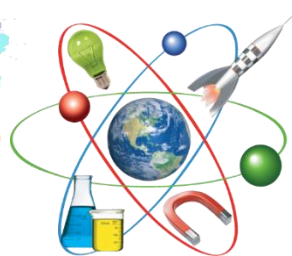


SCIENCE Learning Map



ALL GCSE'S START!

GCSE EXAM REVISION STARTS

Review of term 2

- EARTH'S RESOURCES**
-rusting, ceramics, alloys, Haber process, fertilisers
- LIGHT**
-Reflection, refraction, lenses, solar system, stars
- GENETICS AND EVOLUTION**
-Asexual / sexual mitosis - DNA
-genetic engineering -selective breeding -inherited disorders -screening -variation -evolution -fossils -extinction -classification
- GENETICS AND EVOLUTION**
-Asexual / sexual mitosis - DNA
-genetic engineering -selective breeding -inherited disorders -screening -variation -evolution -fossils -extinction -classification
Additional triple tasks: reproduction in fungi, protein synthesis, gene mutations, cloning, history of DNA, evolution theories.
- WAVES**
-nature of waves -investigating waves -electromagnetic waves -communications -medicine waves
- MAGNETISM**
-magnetic fields -induced magnets -magnets -electromagnets
- GENETICS AND EVOLUTION**
-genetic engineering -selective breeding -inherited disorders -screening -variation -evolution -fossils -extinction -classification
- GENETICS AND EVOLUTION**
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Review of term 1

- CHEMISTRY OF THE ATMOSPHERE**
-resources we use -use of water -life cycle assessments - recycling
- RESPIRATION**
-aerobic respiration -response to exercise
- HUMAN NERVOUS SYSTEM**
-homeostasis, - the nervous system - reflexes
- HORMONAL CONTROL**
-hormones -diabetes -reproduction -menstrual cycle
- WAVES**
-nature of waves -investigating waves -electromagnetic waves -communications -medicine waves
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YEAR 11

- CHEMICAL ANALYSIS**
-purity -formulations -chromatography -identifying gases
Additional triple task: positive and negative ions / analysis
- CHEMISTRY OF THE ATMOSPHERE**
-composition of the atmosphere -green house gases -carbon footprint -pollutions
- USING EARTH'S RESOURCES**
-resources we use -use of water -life cycle assessments -recycling
- RESPIRATION**
-aerobic respiration -response to exercise
- HUMAN NERVOUS SYSTEM**
-homeostasis, - the nervous system - reflexes
Additional triple tasks: the brain and the eye
- HORMONAL CONTROL**
-hormones -diabetes -reproduction -menstrual cycle
Additional triple tasks: plant hormones
- WAVES**
-nature of waves -investigating waves -electromagnetic waves -communications -medicine waves
- MAGNETISM**
-magnetic fields -induced magnets -magnets -electromagnets
Additional triple tasks: generators and transformers
- GENETICS AND EVOLUTION**
-genetic engineering -selective breeding -inherited disorders -screening -variation -evolution -fossils -extinction -classification
- GENETICS AND EVOLUTION**
-genetic engineering -selective breeding -inherited disorders -screening -variation -evolution -fossils -extinction -classification

Review of term 2

- ADAPTATION AND ECOSYSTEMS**
-distribution -competition -adaptations -feeding relationships
- ECOLOGY**
-Classification -ecosystems
- OBSERVING MOTION**
-forces and motion distance-time graphs -acceleration -stopping distances -stretching
Additional triple task: moments, leaves, gears impact, safety and momentum
- FORCES**
-scalars and vectors -weight -resultant forces -centre of mass -parallelogram -resolution of forces
Additional triple task: moments, leaves, gears
- ORGANIC CHEMISTRY**
-crude oil -hydrocarbons -fractional distillation -cracking
- RATES AND EXCHANGE**
-rates of reaction -collision theory -effects of temperature and concentration -catalysts -reversible reactions -equilibrium -radiation -specific heat capacity -demands and issues
- ENERGY**
-energy changes -conservation -GPE -efficiency -resources -power -radiation -specific heat capacity -demands and issues
- ENERGY CHANGES**
-electrolysis -endothermic and exothermic -bond energies
- CELL BIOLOGY**
-cells -microscopes -specialisation -osmosis -diffusion -active transport -cell division -stem cells
- ANIMAL TISSUES AND ORGANS**
-human digestive system -circulatory system
- REACTIONS 2**
-atoms -combustion -thermal decomposition -Conservation of mass -exothermic and endothermic -energy levels
- ENQUIRY PROCESSES 3**
-asking science questions, planning and investigation, recording data and evaluating
- GENES 2**
-biodiversity -inheritance -DNA -genetics -genetic modification

Review of term 1

- ADAPTATION AND ECOSYSTEMS**
-distribution -competition -adaptations -feeding relationships
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- ENERGY CHANGES**
-electrolysis -endothermic and exothermic -bond energies
Additional triple task: cells and fuel cells
- CELL BIOLOGY**
-cells -microscopes -specialisation -osmosis -diffusion -active transport -cell division -stem cells
- ANIMAL TISSUES AND ORGANS**
-human digestive system -circulatory system
- REACTIONS 2**
-atoms -combustion -thermal decomposition -Conservation of mass -exothermic and endothermic -energy levels
- ENQUIRY PROCESSES 2**
-Communication, evidence, critique, risks and theories
- GENES 2**
-biodiversity -inheritance -DNA -genetics -genetic modification

YEAR 10

- ADAPTATIONS, ECOSYSTEMS AND BIODIVERSITY**
-water cycle -carbon cycle -decay -population -pollution -deforestation -global warming -climate change -biodiversity
Triple / tropic levels
And biomass. Food Production efficiency and sustainable Food production
- BIOENERGENICS**
-photosynthesis -uses of glucose
- PARTICLE MODEL OF MATTER**
-solids / liquids / gases -density -latent heat -internal energy
Triple / Gas pressure
- ELECTRICITY**
-static electricity -current -PD -resistance -components -series and parallel circuits -domestic uses -safety -power -efficiency
Triple / Electrical charges
- ATOMIC STRUCTURE AND PERIODIC TABLE**
-structure of atoms -chemical equations -separation techniques -history of the atom -electronic structure -alkali metals, halogens, transition metals
Triple / group 1 comparison & properties of transition metals
- PLANT TISSUES AND ORGANS**
-Plant systems -xylem -phloem -other organs
- CELL BIOLOGY**
-cells -microscopes -specialisation -osmosis -diffusion -active transport -cell division -stem cells
- ANIMAL TISSUES AND ORGANS**
-human digestive system -circulatory system
- REACTIONS 2**
-atoms -combustion -thermal decomposition -Conservation of mass -exothermic and endothermic -energy levels
- ENQUIRY PROCESSES 3**
-asking science questions, planning and investigation, recording data and evaluating
- GENES 2**
-biodiversity -inheritance -DNA -genetics -genetic modification

Review of term 2

- ADAPTATIONS, ECOSYSTEMS AND BIODIVERSITY**
-water cycle -carbon cycle -decay -population -pollution -deforestation -global warming -climate change -biodiversity
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Review of term 1

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- GENES 2**
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YEAR 8

- ENQUIRY PROCESSES 3**
-Asking science questions, planning investigations and recording data
- EARTH 1**
-structure of the earth -rock types -rock cycle -ceramics -the night sky -the solar system -The moon and ideas
- WAVES 1**
-sound and speed -loudness and amplitude -frequency and pitch -the ear and hearing -light and reflection -eye and vision -colour
- FORCES 2**
-friction and drag -squashing and stretching -turning forces -pressure in gases -Pressure in liquids -stress on solids
- ORGANISMS 2**
-gas exchange -breathing -drugs -alcohol -smoking -nutrients -food tests -unhealthy diet -bacteria
- ENERGY 2**
-work, energy and machines -energy and temperature -energy transfer
- ECOSYSTEMS 2**
-aerobic and anaerobic respiration, -biotechnology -photosynthesis -leaves -plant materials
- WAVES 2**
-sound waves, water waves and energy -radiation and energy -modelling waves
- EARTH 2**
-global warming -carbon cycle -climate change -extracting metals -recycling
- ENQUIRY PROCESSES 2**
-Asking science questions, planning investigations and recording data.
- Meet your Science teacher**
- GENES 1**
-variation -continuous -discontinuous -adapting to change -adolescence -reproduction -fertilisation -the fetus -menstrual cycle
- FORCES 1**
-introduction to forces -balanced and unbalanced forces -distance and time graphs -speed and gravity
- ORGANISMS 1**
-Levels of organisation -the skeleton -movement -joints/muscles -cells -movement of substances

YEAR 7

- ENQUIRY PROCESSES 3**
-Asking science questions, planning investigations and recording data
- EARTH 1**
-structure of the earth -rock types -rock cycle -ceramics -the night sky -the solar system -The moon and ideas
- WAVES 1**
-sound and speed -loudness and amplitude -frequency and pitch -the ear and hearing -light and reflection -eye and vision -colour
- FORCES 2**
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- ECOSYSTEMS 2**
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YEAR 6

- ENQUIRY PROCESSES 3**
-Asking science questions, planning investigations and recording data
- EARTH 1**
-structure of the earth -rock types -rock cycle -ceramics -the night sky -the solar system -The moon and ideas
- WAVES 1**
-sound and speed -loudness and amplitude -frequency and pitch -the ear and hearing -light and reflection -eye and vision -colour
- FORCES 2**
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YEAR 5

- ENQUIRY PROCESSES 3**
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YEAR 4

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YEAR 3

- ENQUIRY PROCESSES 3**
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YEAR 2

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WHAT'S THE BIG IDEA?