

KS4 CURRICULUM MAP

Assessment Objectives:

A03

Analyse information and ideas to interpret and evaluate, make judgements, improve experimental procedures.

A02

Apply knowledge and understanding of scientific ideas and techniques.

A01

Demonstrating knowledge & understanding of scientific ideas and techniques.

REVISION & EXAMS

PARTICLE MODEL AND FORCES

- ☐ Density
- ☐ Changes of state
- ☐ Gas temperature and pressure.

Y11 AP3 Assessment

EXCHANGE AND TRANSPORT

- ☐ Aerobic respiration
- ☐ Anaerobic respiration
- ☐ The lungs
- ☐ The heart

COORDINATION AND CONTROL

- ☐ Hormones
- ☐ Metabolic rate
- ☐ Menstrual cycle
- ☐ Blood glucose
- ☐ Thermoregulation
- ☐ Osmoregulation

MAGNETISM AND EM INDUCTION

- ☐ Magnets and magnetic fields
- ☐ Electromagnetism
- ☐ The national grid
- ☐ Transformers and energy

HYDROCARBONS AND POLYMERS

- ☐ Alkanes and alkenes
- ☐ Ethanol production
- ☐ Carboxylic acids
- ☐ Polymerisation
- ☐ Problems with polymers

QUALITATIVE ANALYSIS

- ☐ Flame tests
- ☐ Choosing materials
- ☐ Nanoparticles

FUELS AND EARTH'S ATMOSPHERE

- ☐ Fractional distillation
- ☐ Combustion
- ☐ Earth's atmosphere

Y11 AP1 Assessment

Y11 AP2 Assessment

ECOSYSTEMS

- ☐ Energy transfer
- ☐ Abiotic and biotic factors
- ☐ Parasites
- ☐ Food security
- ☐ Carbon cycle
- ☐ Nitrogen cycle
- ☐ Decomposition

RADIOACTIVITY

- ☐ Atomic models
- ☐ Electrons and orbits
- ☐ Background radiation
- ☐ Half life
- ☐ Radioactive decay

YEAR 11

End of Year

ELECTRICITY AND STATIC ELECTRICITY

- ☐ Electric circuits
- ☐ Current and p.d.
- ☐ Resistance
- ☐ Transferring energy
- ☐ Power
- ☐ Static

RATES OF REACTION, HEAT ENERGY CHANGES

- ☐ Rates of reaction
- ☐ Factors affecting reaction rates.
- ☐ Catalysts and activation energy
- ☐ Exothermic and endothermic reactions.

Y10 AP3 Assessment

GROUPS IN PERIODIC TABLE

- ☐ Group 1
- ☐ Group 7
- ☐ Group 0

ENERGY AND FORCES

- ☐ Work and power
- ☐ Vector diagrams
- ☐ Rotational forces

QUANTITATIVE ANALYSIS

- ☐ Yields
- ☐ Atom economy
- ☐ Titrations
- ☐ Molar volumes of gases

PLANT STRUCTURES AND THEIR FUNCTION

- ☐ Photosynthesis
- ☐ Transpiration
- ☐ Translocation
- ☐ Plant hormones
- ☐ Plant adaptations

COORDINATION AND CONTROL

- ☐ Hormones
- ☐ Metabolic rate
- ☐ Menstrual cycle
- ☐ Blood glucose
- ☐ Thermoregulation
- ☐ Osmoregulation

Y10 AP2 Assessment

RADIOACTIVITY

- ☐ Atomic models
- ☐ Electrons and orbits
- ☐ Background radiation
- ☐ Half life
- ☐ Radioactive decay
- ☐ Nuclear fission
- ☐ Nuclear fusion.

CALCULATIONS, METALS, ELECTROLYSIS

- ☐ Electrolysis
- ☐ Reactivity
- ☐ Metal ores
- ☐ Oxidation and reduction
- ☐ Calculations involving masses

HEALTH AND DISEASE

- ☐ Communicable and non communicable diseases
- ☐ Pathogens and their spread.
- ☐ Plant diseases and defences.
- ☐ Antibiotics

YEAR 10

At KS4 Students follow Edexcel GCSE 9-1 Biology, Chemistry, Physics course.

