SCIENCE CURRICULUM MAP

YEAR 10

Forces
- Newton's Laws
- Energy transfer
- Gravity and magnetism
- Force and acceleration

Digestion and Neutralisation
- Enzyme and enzyme activity
- Titration

Assessment: enzyme activity

Transferring Energy
- Frequency and amplitude
- Efficiency calculations
- Kinetic energy

Plants and Microscopes and bonding
- Photosynthesis
- Diffusion and osmosis
- Covalent and ionic bonding

Assessment: End of Years (Biology, Chemistry and Physics)

YEAR 9

Cardiovascular system, atoms and the periodic table
- Respiration
- Oxygen and glucose
- Electron configuration
- Atomic bonding

Assessment: atoms and bonding

Energy & electricity
- Describing energy transfer
- Charge, current and circuits
- Calculations

Assessment: energy and electricity; scientific calculations

Biological Blueprints
- DNA
- Fertilisation
- Cell division
- Representing data

Assessment: genetics, inheritance, cells and reproduction

Famous Physicists
- Radioactive decay
- Properties of alpha, beta and gamma
- Method in a practical task

Assessment: force and motion, EM waves

Famous Scientists
- The periodic table
- Atoms and their properties

Assessment: atoms, elements, the periodic table

Life Under the Microscope
- Process and location of respiration
- Plants and energy
- Cells and living things

Assessment: cells and organisation, photosynthesis

YEAR 8

Healthy Living
- Effects of exercise and diet
- BMI
- Smoking and the body
- Sleep

Assessment: health, nutrition and digestion

Great Discoveries
- Electric current and electrons
- Graphs
- Electricity and magnetism

Assessment: forces, electricity and magnetism

Alchemy
- Atoms and compounds
- pH acids and alkalis
- Chemical reactions

Assessment: matter, compounds and reactions

Chemical Reactions
- Products and reactants
- Catalysts
- Equations for reactions
- Accurate practical tests

Assessment: chemical reactions, atoms and elements

Physics Behind Biology
- Understand energy
- Energy transfer
- Sound
- Waves

Assessment: energy, energy transfers, waves, light and sound

YEAR 7

No Planet B
- How each state transfers into the next state
- Rock cycle
- Examples of the different types of rock
- Carbon dioxide and it's links to global warming
- Practical diagrams for distillation

Assessment: state transfer, rocks and rock cycle, carbon dioxide

Space
- Gravity as a fundamental force
- Solids, liquids and gases
- Equations

Assessment: forces, motion and space

Survival in the Wild
- understand feeding, reflexes and reproduction
- Ecosystems

Assessment: respiration, reproduction, reflexes and ecosystems

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SCIENCE SKILL — Scientific knowledge and conceptual understanding

SCIENCE SKILL — The nature, processes and methods of science

SCIENCE SKILL — Analysis, evaluation and measurement

SCIENCE SKILL — Experimental skills and investigations