Biology

1. Cell level systems

Eukaryotic and Prokaryotic Cells Enzymes

Respiration

Photosynthesis

2. Scaling up

Specialised Cells

The Circulatory System

3. Organism level systems

The Nervous System Human Reproduction

4. Community level systems

5. Genes, inheritance and selection

Sexual and Asexual Reproduction and Meiosis

Natural Selection

Inheritance

6. Global challenges

Preventing The Spread of Pathogens Preventing and Treating Communicable Disease

Immunity and Vaccination
Developing New Drugs

Chemistry



1. Particles

The Particle Model

2. Elements, compounds and mixtures

Separation techniques

Chromatography

The Periodic Table

Ionic Bonding

Giant covalent structures

Changing state

Bulk properties of materials

3. Chemical reactions

Chemical formulae

Conservation of mass and balanced equations

Exothermic and endothermic reactions

Reactions of acids

Making salts

4. Predicting and identifying reactions

Group 0 - The Noble Gases

Gas tests

5. Monitoring and controlling reactions

Factors affecting rates of reaction

6. Global challenges

Extracting metals

Recycling materials

Forming the atmosphere

Water for drinking

Physics



1. Matter

Density

Solids, liquids and gases

2. Forces

Distance and displacement, speed and velocity

Contact and non-contact forces

Forces, motion and work done

3. Electricity

Electric charge and current

Circuit symbols

Potential difference, current and resistance

4. Magnetism and magnetic fields

Magnets and magnetic fields

The motor effect

5. Waves in matter

Transverse and longitudinal waves

Properties of waves

Electromagnetic waves 1

Electromagnetic waves 2

6. Radioactivity

Radioactive decay

7. Energy

Work done

8. Global challenges

Forces and braking

Energy resources

Mains electricity