

St Martin's School

Curriculum Maps 2021/2022



Key Stage Three Science

Curriculum Plans

St Martin's School

Curriculum Maps 2021/2022



Year 7 Science

Curriculum Plans

Year 7 Curriculum Plans – Autumn Term 2021

Year 7 Science

Safety in the laboratory

- Safety rules in a laboratory
- Scientific skills
- Practical science investigation skills

Cells and the Body

- Cells, tissues and organs
- Muscles, the skeleton, exercise and drugs

Particle Model and Separating Mixtures

- Solid, liquids and gases
- Movement of particles
- Separating mixtures techniques

Energy and Electricity

- Energy types and energy resources
- Energy transfers
- Electricity and types of circuits
- Simple circuit components

*Please be
aware
students may
study these
units in a
different order
than listed.*

Year 7 Curriculum Plans – Spring Term 2022

Year 7 Science

Reproduction and Ecosystems

- Reproductive organs in humans
- Puberty
- Pregnancy: fertilisation, gestation and birth
- Variation and characteristics
- Adaptations
- Food chains and food webs

Acids and Elements

- Atoms, elements, compounds and molecules
- Indicators
- Neutralisation
- Metals and non metals
- Reactions

Forces and Space

- Types of forces
- Force diagrams
- Investigating springs, friction and pressure.
- The solar system
- Gravity
- Satellites

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Year 8 Science

Curriculum Plans

Year 8 Curriculum Plans – Autumn Term 2021

Year 8 Science

Food and Breathing

- Diet and food groups
- The digestive system
- Enzymes
- The breathing system
- Gas exchange
- Anaerobic and aerobic respiration

Combustion and Rocks

- Types of fuels
- Conservation of mass
- Pollution
- Rock types
- The rock cycle

Sound and Light

- Types of waves
- Speed of light and sound
- Hearing and the ear
- Reflection and refraction.
- Colours
- Lenses

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Year 8 Curriculum Plans – Spring Term 2022

Year 8 Science

Plants and Microbes

- Classification
- Reproduction in plants: pollination, dispersal and germination
- Fungi, bacteria and protoctists
- The carbon cycle

Metals and the Periodic Table

- Properties of metals
- Reaction of metals with water and acid
- Alloys
- Dalton and Mendeleev
- Periodic table trends
- The atom

Fluids and Energy

- Particle model
- Pressure
- Conductors and Insulators
- Power and efficiency

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Curriculum Maps 2021/2022



Year 9 Science

Curriculum Plans

Year 9 Curriculum Plans – Autumn Term 2021

Year 9 Science

Cell Biology

- Cell Structure
- Cell Division
- Transport in Cells

Atomic Structure and the Periodic Table

- A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes
- The periodic table
- Properties of transition metals

Energy

- Energy changes in a system, and the ways energy is stored before and after such changes
- Conservation and dissipation of energy
- National and global energy resources

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Year 9 Curriculum Plans – Spring Term 2022

Year 9 Science

Organisation

- Principles of organisation
- Animal tissues, organs and organ systems
- Plant tissues, organs and systems

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Bonding, Structure, and the Properties of Matter

- Chemical bonds, ionic, covalent and metallic
- How bonding and structure are related to the properties of substances
- Structure and bonding of carbon
- Bulk and surface properties of matter including nanoparticles