KS3 Science curriculum summary

Year 7:

In year 7 students study the following units and material:

- What am I made of?
    - The study of the cells, tissues, organs and organ systems that make up plants and animals
- How do we get new life?
    - An introduction to the science of how plants and animals reproduce, looking at the specialised cells involved and the differences between sexual and asexual reproduction
- Can we save the world?
    - Investigating the environment around us and the plants and animals that live in it, including how we take samples, analyse them and what we can learn from this data
- Acids and alkalis
    - An introduction to these two important groups of chemicals, how they react with things and measuring their strength using the pH scale
- Do all chemicals behave the same way?
    - Exploring the properties of different chemicals including testing for different gases and the differences between solids, liquids and gases
- What's under my feet?
    - Investigating the different types of rock found on Earth and their properties
- Could we live on another planet?
    - Investigating what makes life possible on Earth and looking for other planets where this might be possible, then studying the science of sending humans to them.
- Why does my tea go cold?
    - The study of heat and temperature, how heat can move in or between objects and how humans maximise or minimise this transfer.

Year 8:

In year 8 students study the following units and material:

- How does your phone turn on?
    - An introduction to electricity, starting with circuit components and moving on to how we measure electricity. Then looking at the forces electric and magnets components can exert on things
- How can we sustain life on Earth?
    - Looking at the impact human activity has on the environment and how we can make and do things in a sustainable and responsible manner
- Am I what I eat?
    - The study of diet and nutrition and how the human body extracts nutrients from this food
- How do you power your body?
    - Studying the processes of respiration and circulation in the human body to power our cells, provide them with the fuel they need and removing the waste products
- Why do I get sick?
    - The science of disease, how it can affect us and how your body is equipped to protect you
- What are the building blocks of chemistry?
    - An introduction to the difference between atoms, elements, molecules, mixtures and compounds and their properties
- Can you see the show?
    - Investigating the properties of light and sound, the differences between them and how humans are adapted to sense these waves
- Can you solve the mystery?
    - By learning a range of techniques to separate mixtures of chemicals students attempt to solve a mysterious crime

Year 9 (A transition year):

In year 9 students study the following units and material:

Term 1
Cells
Colour Chemistry (a topic looking at all things colour in chemistry)
Atomic structure and The perodic table (Exc. Seperating mixtures)
Wave properties
Electromagnetic waves

Term 2
I'm a Scientist…' Live chat lesson
The Digestive System
Light – colour and lenses
Earthshot activity

Term 3
The Circulatory system
Plant Organ Systems
Revision for EOY assessment
Conservation and dissipation of energy
Investigations

Also included across the Key stage three curriculum:

The science in Greek stories

Careers in science

The introduction and development of practical skills in science

The development of key transferable skills

Comprehension tasks on famous scientists from the past

Debate activities on the worlds more pressing issues.