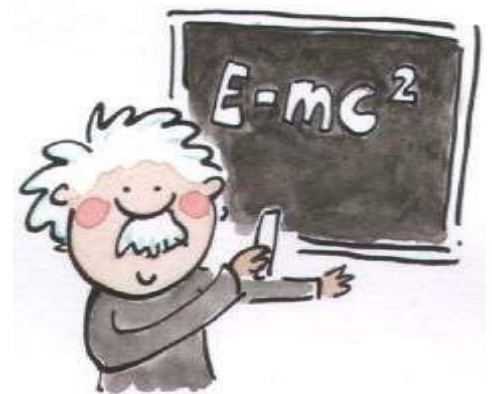


"Scientists have become the bearers of the torch of discovery in our quest for knowledge"
Stephen Hawking

As pupils have had a variety of experiences in different Primary Schools, we place them in mixed ability groups in Year 7. They will have a short introduction to working in the science laboratory and the safe use of laboratory equipment. They are provided with an exercise book and learning booklet which they are expected to bring to every lesson along with the correct equipment to learn.

The Year 7 curriculum includes the following topics:

- Cells and organisation
- Reproduction
- States of matter
- Materials and separating techniques
- Energy
- Forces and Motion
- Electricity
- Waves and light
- Acids and alkali



We ensure that the pupils learn to work scientifically and develop their investigative skills along with their ability to analyse, evaluate and draw conclusions. Most importantly, we encourage them to ask questions and develop a sense of excitement and curiosity about natural phenomena.

Pupils are given regular homework which is set in their learning booklet. There is a short assessment at the end of each topic as well as academy wide cumulative assessments which are important tool in monitoring progress.

We recommend that pupils watch the news and scientific documentaries and discuss these at home. There is an active science club and numerous enrichment activities to encourage pupils to gain confidence and broaden their experience of Science.



Week	SCIENCE TOPICS	PATHWAY
1	Am I a Scientist?	Introductory lesson on Safety and Hazards , Apparatus , Bunsen burners , variables and graphs
2	K3B1: What are living things made of ?	K3B1.1 Microscope - Magnification
3		K3B 1.2 Plant cells/ Animal cells
		K3B 1.3 : Prokaryotic / Eukaryotic
		K3B 1.4 :Specialised cells
		K3B1.5 Movement of substances
4	K3C1 : Particles -Can we change the state of a substance	K3C 1.1 States of matter
5		K3C 1.2 Particle Theory
		K3C 1.3 Physical Changes
		K3C 1.4 Heating and cooling curves (Extension)
6	KS3 P1 : Energy : Where do we get our Energy from ?	KS3 P1.1 food and fuels
7		KS3 P1.2 energy resources
		KS3 P1.3 energy and power
		KS3 P1.4 energy adds up/ conservation of energy
		KS3 P1.5 energy dissipation
8	K3 B2 : Organisation :How systems contribute to respiration ?	K3B 2.1 Levels of organisation
		K3B 2.2 Respiratory system
9		K3B 2.3 Circulatory system
10		K3B 2.4 Circulatory system
		K3B 2.5 Digestive system
11	REVISION & ASSESSMENT (cumulative Topic K3B1,K3C1,K3P1 , Introductory practical skills)	
12	K3C2: Atoms, Elements , Compounds and mixtures What are all things made up of?	K3C 2.1 Atoms and Elements
13		K3C 2.2 Elements, Compounds + Mixtures
		K3C 2.3 The Periodic Table
		K3C 2.4 Formulae of compounds
		K3C 2.5 word equations
14	K3P2 Forces: What is Newton's First law?	K3P 2.1 Introduction to forces
		K3P 2.2 Balanced and Unbalanced forces
		K3P 2.3 Speed
		K3P 2.4 Distance time graphs
15		K3P 2.5 Gravity

16	K3B3 Reproduction: How can fertility be controlled?	K3B 3.1 Reproductive organs
17		K3B 3.2 Fertilisation
		K3B 3.3 Stem Cells
		K3B 3.4 Growth of fetus
		K3B 3.5 Menstrual cycle
		K3B 3.6 Controlling Reproduction
18	K3C3 The periodic table: Do all elements behave similarly	K3C 3.1 :Group 1 - Alkali Metals
19		K3C 3.2 :Group 7 - Halogens
		K3C 3.3 :Group 0 - Noble gases
20	REVISION & ASSESSMENT (cumulative Topic K3B1,B2 K3C1, C2 K3P1 ,P2 Introductory practical skills)	
21	K3P3 Electricity: Can you build a Christmas light?	K3P 3.1: current and circuit components
		K3P 3.2 :Series and parallel circuits
		K3P 3.3:Potential difference
		K3P 3.4:Resistance
22	K3B4 Ecosystems: How do Organisms survive?	K3B4.1 Ecosystems
		K3B4.2 Competition + Interdependence
		K3B4.3 Adaptations
		K3B4.4 Sampling
23	K3C4 Separating Techniques: How does the life straw work	K3C4.1 Pure and Impure Substances
24		K3C4.2 Solutions
		K3C4.3 Solubility
		K3C4.4 Filtration
		K3C4.5 Evaporation + Distillation
		K3C4.6 Chromatography
25	K3P4 waves :Can you judge the 'VOICE' with a CRO	K3P4.1 Nature of waves and properties
26	Assignment Physics : The world is full of waves	K3P4.2 sound waves and speed
		K3P4.3 loudness and Pitch of a sound wave
27	K3P5 Light : What can I see ?	K3P5.1 Light
		K3P5.2Reflection
		K3P5.3Refraction
28		K3P5.4 The eye and vision
		K3P5.5 Colour

29	REVISION & ASSESSMENT (cumulative Topic K3B1- B4 ,K3C1-C4 , K3P1 -P5 + Introductory practical skills)	
30	K3 B5 : Photosynthesis	K3B4.5 Photosynthesis the leaf
		K3B4.6 Factors that affects photosynthesis
		K3B4.7Limiting factors of photosynthesis
31	K3C5 Acids & Alkalis : How can we cure indigestion ?	K3C5.1 The pH scale
		K3C5.2 Types of acids
		K3C5.3 Neutralisation
		K3C5.4 Making salts
38		REVISION & ASSESSMENT (END of YEAR EXAM (cumulative Topic K3B1- B5 ,K3C1-C5 , K3P1 - P5 + Introductory practical skills)