



## Key Stage 3 Science at Kingsdale Foundation School

Students in Key Stage 3 study three lessons of science every week. They follow a condensed Key Stage 3 programme of study, which covers the Key Stage 3 course in 2 years to enable them to spend 3 years on their GCSE course.

The principal focus of science teaching in Key stage 3 is to develop a deeper understanding of a range of scientific ideas and skills in the subject disciplines of biology, chemistry and physics. Pupils should begin to see the connections between these subject areas.

Science lessons are designed to support and enrich students' learning through an innovative and exciting approach to the subject. Lessons take place in laboratories and regularly involve hands-on practical work.

Students are assessed using a variety of class based tasks and by periodic traditional exams.

### Aims of the KS3 Science National Curriculum

The national curriculum for science aims to ensure that all pupils:

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

### KS3 Science Curriculum Content

**The Year 7 and 8 syllabus comprises of:**

Science literacy, numeracy, experimental skills, investigative skills, analytical and evaluation skills.

**Subject content – Biology:**

Structure and function of living organisms

Cells and organs

The skeletal and muscular systems

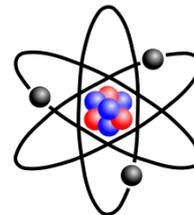


Nutrition and digestion  
Gas exchange systems  
Reproduction  
Health  
Material cycles and energy  
Photosynthesis  
Cellular respiration  
Interactions and interdependencies  
Relationships in an ecosystem  
Genetics and evolution  
Inheritance, chromosomes, DNA and genes



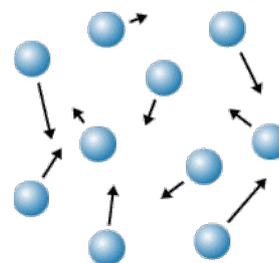
### **Subject content – Chemistry**

The particulate nature of matter  
Atoms, elements and compounds  
The particulate nature of matter  
Atoms, elements and compounds  
Pure and impure substances  
Chemical reactions  
The periodic table  
Materials  
Earth and the atmosphere



### **Subject content – Physics**

Energy  
Calculation of fuel uses and costs in the domestic context  
Particle model  
Energy in matter  
Space physics  
Energy changes and transfers  
Motion and forces  
Describing motion  
Forces  
Pressure  
Weather  
Balanced forces  
Forces and motion  
Waves  
Sound waves  
Light waves



Electricity and electromagnetism

Static electricity

Magnetism

Matter

Physical changes

**Further reading/revision links for Key Stage 3**

- <http://www.bbc.co.uk/schools/ks3bitesize/science/>
- <http://www.scibermonkey.org/>
- <http://www.docbrown.info/ks3science.htm>
- <http://www.educationquizzes.com/ks3/science/>
- <http://www.dontstoplearning.com/ks3science/contents.htm>