# The Science Area

*We promote excellence in Science, ensuring every student reaches his or her full potential in a stimulating, exciting and well-resourced environment. All students and staff are valued. Excellent teaching enthuses students, encourages a positive attitude to learning and develops independent thinking.*

Aims

* To develop and maintain pupils’ enthusiasm for learning and for Science.
* To encourage a positive attitude towards Science and new technology.
* To enable pupils of all abilities and gender to succeed in Science.
* To foster a critical appreciation of the contribution that Science makes to society.
* To give pupils access to careers in Science.
* To ensure that all pupils strive to make progress and attain their highest level of achievement.

## Leadership and Staffing

* The Area is led by a collegiate team consisting of the Director of Science, two Deputy Directors and a Lead Teacher. All members of the collegiate team have specific responsibilities within the Area, including curriculum, teaching and learning and student achievement.
* There are other responsibility holders within the Area with responsibility for various parts of the curriculum such as head of subject and Key Stage Co-ordinator. Others are involved in development initiatives such as primary school liaison.
* 19 well-qualified, talented and committed teachers with a balance between physics, chemistry and biology specialists
* A supportive team of knowledgeable and efficient science technicians (full time equivalent of 6 staff)
* An administration assistant and a data support assistant.

***Accommodation and Resources***

* Fourteen fully-equipped and recently refurbished laboratories in a self-contained area of the school
* Five refurbished and well-stocked preparation rooms
* Recently refurbished staff office with individual working spaces
* Chemical and book stores
* All laboratories have projectors and loudspeakers connected to desk top computers or for use with staff laptops
* All laboratories have interactive whiteboard capacity including 6 new Smart boards.
* 4 laboratories are equipped with networked computers and printers. The Area also has 2 class sets of laptops and a set of iPads.
* Class sets of data-loggers and sensors
* A wide range of reference books as well as class sets of many recent texts for each key stage. Resources are regularly reviewed and up-dated.

## Curriculum

* The Area has, and continues to develop, a range of courses to suit our wide ability range.
* Students with special needs receive extra classroom help and are encouraged to take an active part in Science lessons.
* **In Key Stage 3 (Yrs 7&8)** an Integrated Science course developed by the department is taught for six hours a fortnight to mixed ability classes. The course was written to meet the requirements of the new National Curriculum and adapted to fit in with our two-year compressed Key Stage 3.
* **At Key Stage 4 (Yrs 9-11)** in response to the two year Key Stage 3, we begin GCSE studies in Year 9. We follow the new Edexcel (9-1) Science which we start teaching in year 9.
* There are 2 possible routes of study, enabling students to access up to the equivalent of 3 GCSEs in:
  1. the three separate sciences (Triple Science)
  2. Combined Science (Double Science)
* **At Key Stage 5**, the Area offers AQA Biology and Chemistry and OCR Advancing Physics AS and A2 courses. There are three groups for biology at AS and two at A2, chemistry and physics have two and two.

In addition, in year 13 we ae offering OCR AS and A2 Double Award Applied Science which is being taught by three specialist teachers of Physics, Chemistry and Biology. We are adding a WJEC Environmental course and a WJEC Applied science course to new students in year 12 from 2017.

***Achievement (2017)***

* KS5: 100% pass rate (91%+ A\*-C) and top ALPS band for value added in each of the sciences.
* GCSE: 100% A\*-C in triple sciences; 87% in double.