**Science Department Information**

All students at Writhlington experience a broad and balanced science education to the age of 16 and many choose to continue their science studies in the sixth form.

Such is the impact of science in everyday life that the study of science is a core element of both the National Curriculum and school life at Writhlington. Our aim is to enthuse and inspire pupils in science through learning experiences that are stimulating, challenging and fun.

The Science Department, is rich in a variety of physical and electronic resources that enable us to provide a stimulating and varied learning environment to accommodate a very wide range of different learning and teaching styles. Close links with other schools and universities ensure that new ideas and approaches to learning are welcomed.

The department is well resourced with nine laboratories that are all very well equipped, each has an interactive whiteboard, Apple TV and advanced wireless network enabling all students to work on their iPads. Other specialist areas within the department include an orchid propagation lab, several greenhouses, one central prep room, and a science work room. We are extremely proud that the school’s orchid project has been internationally recognised.

A dedicated team of teaching, learning support and technical staff has ensured that students successfully follow a broad and varied science curriculum. Achievement has improved over the last four years with the department predicting results this year that are sig+ at Key Stage 4. Science A-level results at sixth form have been good over several years.

**Key Stage 3**

In Years 7, 8 and 9 we build on the previous primary experience, but with a different emphasis. Pupils carry out practical activities and investigations in our well-equipped laboratories supported by experienced technical staff. Learning activities draw on an increasingly wide range of concepts and provide coverage of the Key Stage 3 National Curriculum programme of study. The scheme of work follows the four National Curriculum themes:

Experimental and Investigative Science

Life Processes and Living Things (Biology and Environmental Science)

Materials and their Properties (Chemistry and Earth Science)

Physical Processes (Physics and Space Science)

For each teaching group in Years 7, 8 and 9 a team of two science teachers usually work together to cover all four themes.

**Key Stage 4**

In Years 10 and 11 pupils continue to follow a broad and balanced course leading to GCSE Science. Pupils follow one of two pathways that are designed to meet their ability, and aspirations.

Most follow AQA GCSE Sciences in Core Science and Additional Science and approximately one third of students opt to study GCSE Physics, Chemistry & Biology. These students are given extra curriculum time to cover this extra material.

**Sixth Form Science**

Many of our pupils choose to continue their science studies in Years 12 and 13. Pupils have the opportunity to spend two years studying one or more of the separate sciences: Biology, Chemistry, Physics, or Applied Science to GCE AS and Advanced Level.

**Learning Support**

In all key stages, our pupils succeed best in science if the learning activities capitalise on the pupil’s natural interests and abilities. We have high expectations of all our pupils, but equally we carefully plan activities, tasks and teaching methods to match different abilities and learning needs.

# The Aims of the Science Department

* To ensure that each student achieves their potential in science in line with the National Curriculum and the sixth form courses in each particular science subject.
* To encourage the development of positive qualities such as curiosity, tenacity, self-reliance and cooperation.
* To promote a positive image of science and its role in our society.
* To inspire and develop pupil’s enthusiasm for learning and for science in particular

# Curriculum Structure 2016/17

|  |  |  |
| --- | --- | --- |
| Key Stage | Year | Programme of Study |
| KS3 | 7 | National Curriculum  KS3 Science |
| 8 |
| 9 |
| KS4 | 10/11 | GCSE Biology  GCSE Chemistry  GCSE Physics |
| GCSE Core and Additional Science |
| KS5 | 12/13 | Physics A-level  Chemistry A-level  Biology A-level  Applied Science A-level |