



## BIOLOGY

### Advanced General Certificate of Education (AS and A2)

#### WHY BIOLOGY?

The opportunities for students of Science, on completion of full-time education, are enormous. There are many possible careers within the scientific world and qualifications in Science subjects are acceptable as an entry into many other careers.

Science students at Thomas Telford School are currently preparing to move into Higher Education Courses and careers in the following fields.

Physiotherapy  
Veterinary Science  
Chemistry  
Biological Science

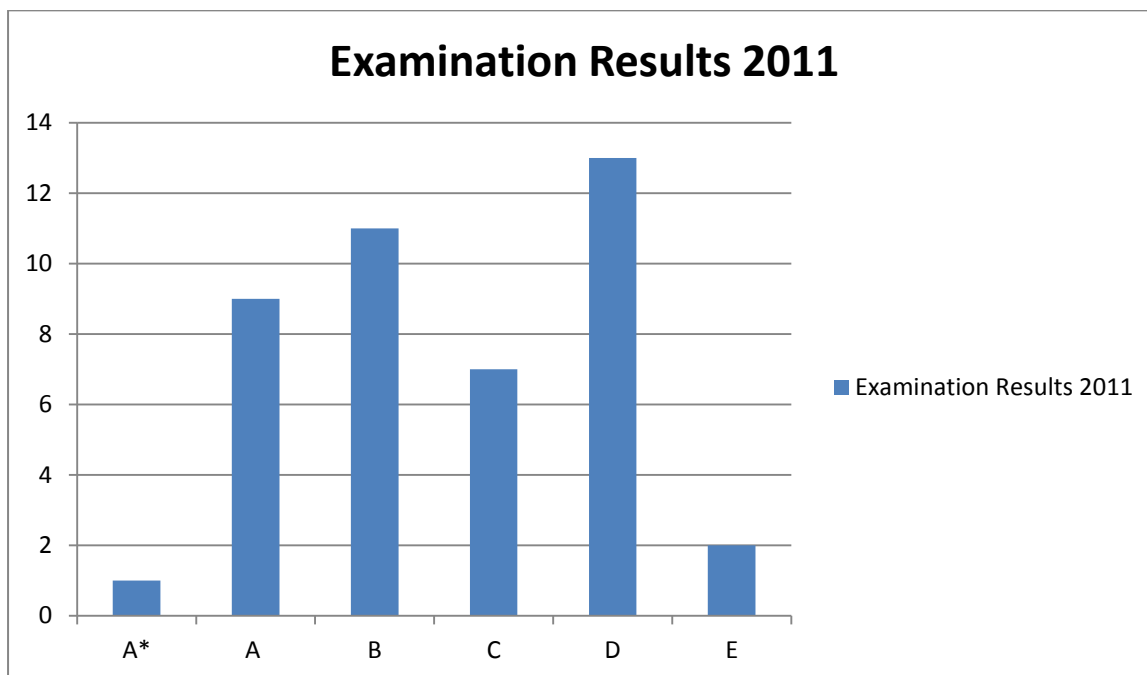
Forensic Science  
Medicine  
Nursing  
Chemical Engineering

Pharmacy  
Research  
Aeronautics

The Science courses offered at Thomas Telford School are designed to provide academic and vocational experiences. They will prepare students for their choice of career in both the world of work and Higher Education

#### SPECIFIC ENTRY REQUIREMENTS

- 6 GCSEs (Grades A\* - C)
- Grade B (Higher Tier) in GCSE Biology (Separate Sciences) or Grade B (Higher Tier) in Additional Science
- Satisfactory level of competence in English
- Grade B in Mathematics



## Course Details

OCR A level Biology

You will study six modules as follows:

### **F211 Cells, Exchange and Transport (*Written Exam*)**

This module looks at the inner structure of cells and their functions. It considers how cell organelles interact and transfer materials between the cell and its surroundings. You will look at different mechanisms of transport in the body.

### **F212 Molecules, Biodiversity, Food and Health (*Written Exam*)**

In this module you will look at the chemical structure of Biological molecules such as Carbohydrates and Proteins. You will look at the dietary intake of key molecules and their nutritional and health implications. Later on you will evaluate Darwin's work on Natural Selection.

### **F213 Practical Skills in Biology (*Internal assessment*)**

You will carry out a series of set investigations which will test your analytical and evaluative skills. You will be able to demonstrate your skills in using and manipulating apparatus.

### **F214 Communication, Homeostasis and Energy (*Written Exam*)**

In this module you will look at the complex series of reactions involved in Respiration and Photosynthesis. You will look at control mechanisms in the body and relate them to negative feedback loops.



## **F215 Control, Genomes and Environment (*Written Exam*)**

In this module you will look at cellular control and how the biotechnology industry can utilise and manipulate this. You will also consider case studies for sustainable development in different ecosystems, recognising conflicts of interest and proposing solutions.

## **F216 Practical Skills in Biology (*Internal Assessment*)**

You will carry out a series of set investigations which will test your analytical and evaluative skills. You will be able to demonstrate your skills in using and manipulating apparatus.