

## **Biology Advanced Higher**

### **Why take this course?**

The purpose of the Course is to build on the knowledge, understanding and skills developed by the learner in Higher Biology and to provide a useful bridge towards further study of biology.

The Advanced Higher Biology Course is based on integrative ideas and unifying principles of modern biological science. It covers key aspects of life science at the molecular scale and extends to aspects of the biology of whole organisms that are among the major driving forces of evolution. In addition, the Advanced Higher Biology Course aims to develop a sound theoretical understanding and practical experience of experimental investigative work in biological science.

### **To succeed in this course, you need...**

The correct application and attitude towards study both in theoretical and practical situations.

For entry to this Course learners would normally be expected to have attained the skills, knowledge and understanding required by the following the Higher Biology Course or Higher Human Biology Course. Good literacy and numeracy skills are essential and will be developed in context throughout the course. It also requires a secure understanding of chemical structure, bonding and interactions.

### **Course structure and Content**

The course is divided into 3 units: Cells and Proteins; Organisms and Evolution; Investigative Biology.

The Course provides candidates with the opportunity to develop a deeper understanding of the cell by studying the key roles of proteins within the cell.

This understanding of cellular processes is then related to physiological function. At the whole-organism scale, the Course explores how sexual reproduction and parasitism are major drivers of evolution. This allows candidates to develop a deeper understanding of the mechanism of evolution, the biological consequences of sexual reproduction and the biological inter-relationships involved in parasitism. The Course provides a deeper understanding of laboratory and fieldwork techniques, and in carrying out a biological investigation the candidate has the opportunity to produce an extended piece of scientific work.

### **Course Assessment (Subject to changes by SQA)**

The candidates will be assessed within a question paper only, requiring demonstration of the breadth of skills, knowledge and understanding acquired from across the Units in unfamiliar contexts and/or integrated ways.

The final exam consists of multiple choice, structured responses, extended responses/essay and a data handling question.

### **Where might this course take me?**

Pupils studying Biology will soon appreciate the employment opportunities this opens up to them within Orkney and beyond in, for example, medical and veterinary sciences, genetics, agriculture, fish farming, marine biology, renewable energy, food technology and nature conservation.