

**BIOLOGY: NATIONAL 4**

**3 UNITS: CELL BIOLOGY  
MULTICELLULAR ORGANISMS  
LIFE ON EARTH**

**ADDED VALUE UNIT: BIOLOGY ASSIGNMENT**



### **Course Entry Requirements**

Pupils should consider this course if they have achieved Level 3 Science or have any other Science qualification at National 4.

### **What skills will my child develop?**

- knowledge and understanding of biology
- an understanding of biology's role in scientific issues
- an understanding of biology in society and the environment
- scientific inquiry skills to plan and carry out experiments
- scientific analytical thinking skills in a biology context
- the ability to use technology, equipment and materials, in scientific activities
- problem-solving skills in a biology context
- finding associations and investigating models in real-life contexts
- use and understand scientific literacy to communicate ideas and issues
- information-handling skills (selecting, presenting, processing information)
- the ability to review science-based claims in media reports
- an understanding of the importance of accuracy
- evaluating environmental and scientific issues
- risk assessment and decision-making

### **WHAT WILL MY CHILD EXPERIENCE DURING THE COURSE?**

- Active and independent learning through self and peer evaluations, reflecting on learning, setting targets, evaluating progress, making independent decisions, using feedback
- A blend of classroom approaches including experimental, hands-on, practical, investigative approaches, whole class discussions, interactive teaching
- Collaborative learning: working with others in group or partner activities; cross-curricular learning eg with other sciences, mathematics, social studies, technologies or religious, moral and philosophical studies; with organisations such as STEMNET
- Space for personalisation and choice: learners can choose what to observe or measure and their methodology; learners will choose the topic for their Added Value Unit (Assignment)
- Applying learning
- Embedding literacy and numeracy skills: researching, selecting, summarising and presenting information; evaluating; recording and displaying data; interpreting data; using technology.

### **ASSESSMENT**

- To gain National 4, learners must pass all Units and are assessed as pass or fail by the school/centre (following SQA external quality assurance to meet national standards)
- Unit assessment (or 'evidence of learning') will ensure that learners can apply knowledge and understanding and scientific skills to an experiment or practical investigation. This may be evidenced in a portfolio of work
- The Assignment will require learners to research a topic of their choice, in consultation with their teacher. The investigation will be undertaken in up to 8 hours of class time and the findings will be written up in no more than 2 hours.

### **Progression**

National 4 progresses onto; - National 5 in the same course or  
- National 4 in any other science course