



## Content - Big ideas

### B2.3 - Adaptations

#### **Big Question:**

What do organisms need to do to survive and stay healthy?

#### **Learning Outcome:**

Be able to describe the differences in organisms and how this is important for them to be able to adapt and survive.

### January onwards – Edexcel GCSE Combined Science

### CB1: Key Biological Concepts: Cells & Transport in and out of Cells

#### **Big Question: What are the basic building blocks of life?**

#### **Learning Outcomes:**

- Have an understanding of scale, size, magnification and the different types of microscope; undertake microscopy techniques, making appropriate drawings and calculations
- Describe the structure and function of eukaryotic cells; including the function of sub-cellular structures
- Describe the structure and function of prokaryotic cells; comparing and contrasting this with eukaryotic cells
- Describe the structure and function of specialized cells
- Describe and explain the mechanisms that transport substances into and out of cells

## Prior learning

- Cell structure and function
- Microscopy and magnification
- The movement of substances in and out of cells
- Adaptations of structure to function

## Global/IOM/Subject Links

### **Global & IOM links:**

- Agriculture, Biosphere, Health & Medicine

### **Subject:**

- Magnification calculations; SI units and interconversions – Maths

## Subject specific skills development

- Use of the magnification equation for calculations
- Interconversion between SI units
- Use of standard form to represent small and large numbers
- Calculation of percentage change

### **Practical skills**

- The use of microscopes to examine cells and sub-cellular structures (required practical)
- Biological drawing techniques for recording observations
- Techniques to estimate changes in mass in biological samples (required practical)