



## Biological Science (Year 8) - 2012

### Year 8 Level Description

In Year 8, students are introduced to cells as microscopic structures that explain macroscopic properties of living systems. They link form and function at a cellular level and explore the organisation of body systems in terms of flows of matter between interdependent organs. Students use experimentation to isolate relationships between components in systems and explain these relationships through increasingly complex representations. They make predictions and propose explanations, drawing on evidence to support their views.

### Content description:

1. Cells are the basic units of living things and have specialised structures and functions
2. Multi-cellular organisms contain systems of organs that carry out specialised functions that enable them to survive and reproduce

### Elaborations:

1. examining a variety of cells using a light microscope, by digital technology or by viewing a simulation
2. distinguishing plant cells from animal or fungal cells
3. identifying structures within cells and describing their function
4. recognising that some organisms consist of a single cell
5. recognising that cells reproduce via cell division
6. describing mitosis as cell division for growth and repair
7. identifying the organs and overall function of a system of a multicellular organism in supporting the life processes
8. describing the structure of each organ in a system and relating its function to the overall function of the system
9. examining the specialised cells and tissues involved in structure and function of particular organs
10. comparing similar systems in different organisms such as digestive systems in herbivores and carnivores, respiratory systems in fish and mammals
11. distinguishing between asexual and sexual reproduction
12. comparing reproductive systems of organisms



**Assessments:**

Assessment	Value (%)
Test	40
Practical Assessment	20
Research	30
Homework	10

A detailed breakdown of the programme can be found on the College website in the Science Learning Area.