



# LEVEL 2 BIOLOGY

## 2BIO

### What is this course about?

Through studying biology you will develop a deeper understanding and appreciation of the diversity of life on Earth. You will learn about how organisms interact with and are adapted to their environment, how life processes that occur in cells support the survival of the whole organism, and how genetic variation results in the amazing diversity of life we have.

### What sorts of things will I do?

You will be involved in the active exploration of what biology is, biology knowledge & skills, and how biologists use a range of different approaches and perspectives to continue to develop our understanding of the natural world. In biology, you will work both inside and outside the classroom.

### Learning capabilities/ critical skills

#### Significant Learning

- Engage with the iterative process of biology investigation through innovation, problem solving, inquiry, collaboration, and evaluation
- Recognise how different approaches can be used in biology investigations
- Consider mātauranga Māori and Pacific knowledges alongside biology contexts that relate to Aotearoa New Zealand and the Pacific
- Identify interrelationships between biology practices, technological advances, mātauranga Māori, and the practical advancement of science knowledge
- Recognise that biology ideas are developed through critical and creative thinking, regulated by evidence
- Recognise that biology ideas are communicated using language, symbols and texts specific to biology
- Consider how the values and needs of a society can influence the focus of biology endeavours
- Use biology understanding to critique claims or predictions made in communicated information

### Rangatiratanga: (as it appears in the Hikairo Schema)

Rangatiratanga (self-determination) supports ākonga to achieve. Thinking and meaning-making are promoted. Learning is meaningful and connected.

#### To experience success, students will have opportunities to develop their learning dispositions through:

##### Engagement:

- Use of inquiry approaches to direct learning
- Consider multiple perspectives on controversial topics to help formulate and understand their personal perspectives
- Student agency is encouraged by utilising tuakana to guide teina. This includes modelling, guidance, and practice opportunities.

##### Managing self:

- Overcome roadblocks in learning by building resilient behaviours
- Use peer-to-peer evaluation, inquiry-based learning, and input into assessment design to support the development of characteristics of leadership of self.

##### Learning relationships:

- Use of ako and tuakana-teina to lead learning activities.
- Engage in feedback loops that are purposeful, constructive, and acknowledge effort and achievement.

## What standards can I enter?

Your teacher will work with the whole class and with you to devise a learning programme that is responsive to your strengths, interests, and one that sets you up to aim high and achieve your potential.

NCEA Level	Standard Number	Name of standard	Assessment mode	Credits (W/R)	Time frame
2	91158	Investigate a pattern in an ecological community, with supervision	<b>Internal:</b> Research report	4	Term 1
2	91155	Demonstrate understanding of adaptation of plants or animals to their way of life	<b>Internal:</b> Research report	3	Term 1
2	91153	Carry out a practical investigation in a biology context, with supervision	<b>Internal:</b> Practical report	4	Term 2
2	91160	Investigate biological material at the microscopic level	<b>Internal:</b> Observation and analysis	3	Term 2
2	91157	Demonstrate understanding of genetic variation and change	<b>External</b> assessment	4 W	Term 3

At Level 2, UE literacy becomes an important qualification for those students with a view to attending university. Level 2 English offers many standards that contain both the reading and writing credits necessary for this qualification.

Key for Credits column:

R - UE reading literacy

W - UE writing literacy

## Extension/Scholarship Preparation

**In this subject area - Extension opportunities look like:**

- Joining and engaging in the 2 Bio extension Google classroom.
- Attending the extension workshops after school.
- Doing further reading beyond the demands of the core 2BIO course.
- Preparing for the Biology Scholarship examination at the end of year 13. Note that Biology Scholarship examines the biology curriculum at both Level 2 and 3 at a higher level of understanding.
- The opportunity to enter the Biology Olympiad competition.
- Students will be supported to prepare for and sit a level 3 external at the end of level 2 worth 5 level 3 credits. This work follows on from the first ecology topic and develops an understanding of plant and animal responses to the environment and the underpinning processes at a cellular level.