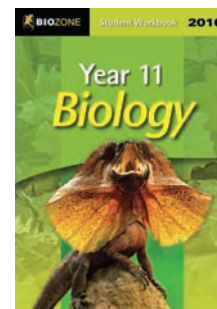


2010: What's New in Year 11 Biology

Thank you for purchasing the 2010 edition of *Year 11 Biology Student Workbook*. Biozone is committed to providing an up-to-date resource that caters for the requirements of students and teachers in Australia. The current edition of this workbook expands on the material developed in earlier editions. This summary provides a record of changes since the previous edition.



Organisational and general changes

There have been some minor changes to layout within several chapters in order to accommodate new activities and updates. As was the case last year, supplementary material has been provided on the Teacher Resource CD-ROM (TRC). As with the activities in the workbook, this material has been updated. Spreadsheets, which can be used in conjunction with the workbook to develop the ICT and data handling skills, are available on the TRC. **In response to popular request**, the model answers are now provided with a show-hide feature on the non-printable PDF version of the workbook, also on the Teacher Resource CD-ROM.

Activities Removed or Shifted in this Edition

The following activities have been removed from this edition.

Transforming Raw Data: Replaced with two activities 'Manipulating Raw Data' and 'Constructing Tables'.

Data Presentation: Replaced with two revised activities 'Constructing Tables' and 'Constructing Graphs'.

Flower Structure: Replaced with two activities 'Insect Pollinated Flowers' and 'Wind Pollinated Flowers'.

Monitoring Physical Factors: Parts of this activity are now covered in 'Sampling Populations'.

Ecological Succession: Replaced with two new activities 'Primary Succession' and 'Secondary Succession'.

Sewage Treatment: This activity is now on the TRC

☆ New activities in this edition

Page Activity and description

- 27 Manipulating Raw Data**
An activity describing how raw data can be transformed to provide better information and easier analysis.
- 28 Constructing Tables**
This activity describes the proper construction of tables to summarise processed data.
- 29 Constructing Graphs**
This activity describes how to construct accurate graphs including headings, labels, keys and scales.
- 181 Urine Analysis**
An activity describing the use of urine analysis to detect homeostatic disturbances, pregnancy or drug use.
- 206 Growth and Development**
This exercise describes developmental changes and growth rates in humans from birth through to adulthood. Proportional changes in the body are also described.
- 214 Insect Pollinated Flowers**
This page looks at the structures of insect pollinated flowers and how they attract pollinators. General flower structures are also discussed.
- 215 Wind Pollinated Flowers**
The structure of wind pollinated flowers. Students compare and contrast wind and insect pollinated flowers.
- 301 Primary Productivity**
A two page activity that looks at the productivity of various ecosystems and provides an example of an Australian grassland ecosystem. Factors contributing to ecological efficiencies in different systems are discussed.
- 312 Nutrient Cycles**
This activity introduces nutrient cycling and looks at the role that various members of the ecosystem play in it.

317 Nitrogen Pollution

This two page activity explores the damaging effects of excessive or inappropriate use of nitrogen compounds.

357 Horse Evolution

A single page activity providing a good example of how the fossil record can be used to demonstrate changes to a particular type of animal over time.

369 Primary Succession

This page replaces some of the material previously found in 'Ecological Succession', with improved artwork that focusses solely on primary succession.

370 Secondary Succession

This activity focusses on secondary succession, including gap regeneration and deflected succession.

△ Existing material upgraded in this edition

Activities revised in order to clarify ideas and improve the stimulus material, questions, format, or general content:

Page Activity and description

Objectives and Resources in all topics

Texts and periodicals have been updated. Where necessary, the objectives have been revised to accommodate any new or changed activities.

37 Interpreting Line and Scatter Graphs

Question two has been changed to focus on interpreting shag, perch and trout data from the preceding page.

104 Specialisation in Human Cells

A small change to the cell table to include mucus secreting goblet cells.

105 Levels of Organisation

Updated images and a reversed order of photographs make this activity clearer than the previous version.

201 The Hormones of Pregnancy

This activity has been revised to include a discussion and questions on the use of monoclonals to detect pregnancy.

231 Features of Microbial Groups

The questions have been altered in this activity to avoid repetition of content with features of the five kingdoms. It encourages students to expand their general knowledge of microbial groups.

266 Water Budget in Mammals

A revision of the material now provides a more complete look at water transfers, gains, and losses in mammals.

267 Water Balance in Animals

The information and questions have been revised.

295 Constructing a Food Web

Students must now provide more food chains, which will help them in creating their food web.

333 Sampling Populations

This activity has been revised to include material on monitoring physical factors.

385 Global Warming

The data have been updated and the activity revised with additional data from global warming studies. Question two has been revised.

387 Biodiversity and Global Warming

This activity has been revised to include information on the effects of global warming on biodiversity both globally and in Australia. The questions have been revised.

We hope that you enjoy using Year 11 Biology this year. We welcome all constructive feedback ... the staff at Biozone.



