



Investigating Biology



Investigating Biology is part of the comprehensive Investigating Science program, which has been designed for use by students from Grade 9 upwards.

The program includes multimedia science lesson materials, interactive assessment, and scientific equipment.

Investigating Biology comprises 31 multimedia science lessons for student use. Each lesson covers a specific topic area, and provides essential theory, hands-on practical activity and continuous student assessment.

For ease of use, each lesson has the same structure:

- Lesson overview
- Theory presentation
- One or more practical activities containing automatic student assessment and guidance
- On-screen student workbook for recording of practical results
- Supporting on-screen help and reference information
- An on-screen Assessment test

Practical activities take a wide range of forms, including:

- Experiments involving scientific equipment
- Discovery through on-screen applications and simulations
- Research based tasks

Lesson Topics

Investigating Biology:

- Bones and Joints
- Human Digestive System
- Diet
- Exercise
- DNA
- Genetics
- Evolution
- Starch in Food
- Sugar in Food
- Protein in Food
- Fat in Food
- Using a Microscope
- Plant Life Cycles
- Reproduction of Flowering Plants
- Photosynthesis
- Nutrient Cycles
- Plant Growth
- Osmosis
- Human Reproduction
- Cells and the Brain
- Animal Classification and Life Cycles
- Food Chains
- Oil Pollution
- Global Warming
- Habitats
- Recycling
- The Water Cycle
- Fossils
- Ecology
- Human Circulatory System
- Human Respiratory System

Study Kits

Where a lesson requires specific items of equipment, this is provided in a separate study kit for the lesson.

Each study kit is provided in an equipment tray for ease of storage. The lid of each tray is printed for easy inventory control.



Students carrying out photosynthesis experimentation

Running and Managing Lessons

Multimedia science lessons may be run on a standalone PC, over a local computer network (LAN), or via the Internet.

Student progress and performance may be automatically tracked using the following optional management software:

- ClassAct classroom-based management software
- ClassCampus online learning management software

The reporting facilities provided by the learning management software also allow the teacher to automatically report on the progress and performance of individual students, or of the class as a whole.



Students preparing a microscope slide of onion cells



Investigating Biology

Ordering Information:

Standalone or LAN Delivery of Multimedia Science Lessons

For lessons that are to run on standalone computers or over a local area network, the order codes are listed below. Each lesson is provided as a site license.

Investigating Biology:

- ST85 BI01/SL Bones and Joints
- ST85 BI02/SL Human Digestive System
- ST85 BI03/SL Diet
- ST85 BI04/SL Exercise
- ST85 BI05/SL DNA
- ST85 BI06/SL Genetics
- ST85 BI07/SL Evolution
- ST85 BI08/SL Starch in Food
- ST85 BI09/SL Sugar in Food
- ST85 BI10/SL Protein in Food
- ST85 BI11/SL Fat in Food
- ST85 BI12/SL Using a Microscope
- ST85 BI13/SL Plant Life Cycles
- ST85 BI14/SL Reproduction of Flowering Plants
- ST85 BI15/SL Photosynthesis
- ST85 BI16/SL Nutrient Cycles
- ST85 BI17/SL Plant Growth
- ST85 BI18/SL Osmosis
- ST85 BI19/SL Human Reproduction
- ST85 BI20/SL Cells and the Brain
- ST85 BI21/SL Animal Classification and Life Cycles
- ST85 BI22/SL Food Chains
- ST85 BI23/SL Oil Pollution
- ST85 BI24/SL Global Warming
- ST85 BI25/SL Habitats
- ST85 BI26/SL Recycling
- ST85 BI27/SL The Water Cycle
- ST85 BI28/SL Fossils
- ST85 BI29/SL Ecology
- ST85 BI30/SL Human Circulatory System
- ST85 BI31/SL Human Respiratory System

Internet Delivery of Multimedia Science Lessons

To order versions of the lessons that will run over the Internet via the ClassCampus online management system, replace the /SL suffix with /AL.

For example, ST85 BI01/AL is the online version of the Bones and Joints lesson.

Please note that in order to run lessons via ClassCampus, your school will require a valid Institution Class Campus Registration Annual License (order code **CCOLL/AL**).

Ordering Information (continued):

Study Kits

The following study kits provide the equipment required for the related Investigating Biology lessons:

- ST85 BI01 Bones and Joints Study Kit
- ST85 BI02 Human Digestive System Study Kit
- ST85 BI03 Diet Study Kit
- ST85 BI05 DNA Study Kit
- ST85 BI08 Starch in Food Study Kit
- ST85 BI09 Sugar in Food Study Kit
- ST85 BI10 Protein in Food Study Kit
- ST85 BI11 Fat in Food Study Kit
- ST85 BI12 Using a Microscope Study Kit †
- ST85 BI15 Photosynthesis Study Kit
- ST85 BI18 Osmosis Study Kit
- ST85 BI20 Cells and the Brain Study Kit
- ST85 BI23 Oil Pollution Study Kit
- ST85 BI24 Global Warming Study Kit
- ST85 BI27 The Water Cycle Study Kit
- ST85 BI28 Fossils Study Kit
- ST85 BI31 Human Respiratory System Study Kit

† Students carrying out the Reproduction of Flowering Plants lesson or the Osmosis lesson will also require access to the Using a Microscope Study kit.

No other lessons in the Investigating Biology range require study kits.

Datalogging Equipment:

The following datalogging equipment is used for selected Investigating Biology lessons:

- **SCI DL DataLog 120 - Data Logger** (required for use with the following sensors)
- **SCI HR Heart Rate Sensor** (required for use with Exercise lesson and Human Circulatory System lesson)
- **SCI ELT Environmental Light Sensor** (required for use with Photosynthesis lesson)

For further information please refer to the *Data Logging Equipment* factsheet.

Other items required but not supplied:

- Chemicals (and certain other consumable items) are not provided, but should be readily available from local suppliers. Please contact LJ Create for further guidance.

Investigating Science Program

	No.	Average time
Investigating Biology lessons	31	110 minutes
Total		57 hours