Program Features

Frey's Inquiry Investigations™ Module *Kingdoms of Life* engages your students in active and meaningful learning. Each of the three units in the program focuses on a different theme and contains an exciting collection of classroom-tested activities that let students experience the wonders of science through direct, hands-on experience.

These standards-based units link to core science concepts, making them an excellent complement to your existing curriculum. Best of all, you won't need a strong background in science to use this program—the comprehensive Curriculum Guide that comes with the module provides teacher-friendly instructions on how to teach the activities.

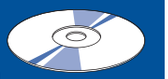
Each Unit includes

- Comprehensive investigation literature with planning and preparation tips, step-by-step instructions, expected outcomes, cross-curricular integration, and assessment strategies.
- A reproducible Student Guide for each unit with complete background information, step-by-step procedures, data tables, analysis questions, and options for open-ended student-designed investigations that challenge students to use their critical thinking skills. Also included are related websites and *Read More About It* sources for students to obtain additional information.
- A collection of safe and fun inquiry-based lab investigations with real-world applications.
- Enough high-quality science materials for a class of up to 40 students working in groups.
- A handy Storage Center to neatly store all materials.

The Curriculum Guide includes

- Comprehensive, unit-specific teacher and student guides.
- Materials lists, a comprehensive Glossary, Useful Equivalents, Symbols, and Equations, Science Safety, and How to Record, Analyze, and Report Data.
- Six Comprehensive Inquiry Activities—Site Survey, Forest (Wooded Area) Survey, Grassland Survey, Stream/River Survey, Microlife Survey, and Soil Survey.

Also included with the Inquiry Investigations™ Module *Kingdoms of Life* is the Curriculum Resource CD-ROM*, which includes…



Content Tutorials:

- Topic-related content featuring detailed illustrations that cover key concepts in classification and ecology.
- Hyper-linked glossary of key concepts and terms.

Assessment Monitoring:

- Test questions that can be accessed in either Practice or Test Mode; questions allow students to demonstrate content knowledge.
- Customized tests and worksheets with five question types (essay, multiple choice, concept map, matching, and labeling), as well as dynamic web-deliverable multi-media tutorials and presentations.

Correlation to National and State Science Standards:

- Key concepts correlated to the National Science Education Standards (NSES) and a link to the Frey Scientific website for selected State standards.

Teacher Resources:

- Image gallery containing printable illustrations and images relating to classification and ecology topic areas.
- Dynamic animations that reinforce key concepts in classification and ecology.
- Experimental results section that provides useful teacher tips for each activity as well as in-depth experimental data analysis. Where applicable, graphs, tables, and images are provided to enhance each activity.

Virtual Laboratory — Classifying Living Organisms

- Explore the object-based virtual lab environment. The virtual lab allows students to interactively perform every step of the lab activity by manipulating lab equipment on their virtual workbench.
- Use the electronic notebook to record and analyze results.

**System Requirements: Windows 2000 or higher, VISTA-compatible, Mac 9.2 or higher (including OSX), 128 MB RAM.*

The Curriculum Guide contains the following sections – Teacher Guide, Appendix, Student Resources, and a Curriculum Resource CD-ROM. Each section has the same general format, let's take a closer look –

A Closer Look at the Teacher Guide…

Science Concepts and Skills

- Overview of key concepts and skills presented in each lab

Science Standards

- A list of the National Science Education Standards covered in each lab

Materials

- Comprehensive list of the materials needed for each lab

Time Requirements

- Amount of time needed for preparation and activities

Pre-lab Preparation

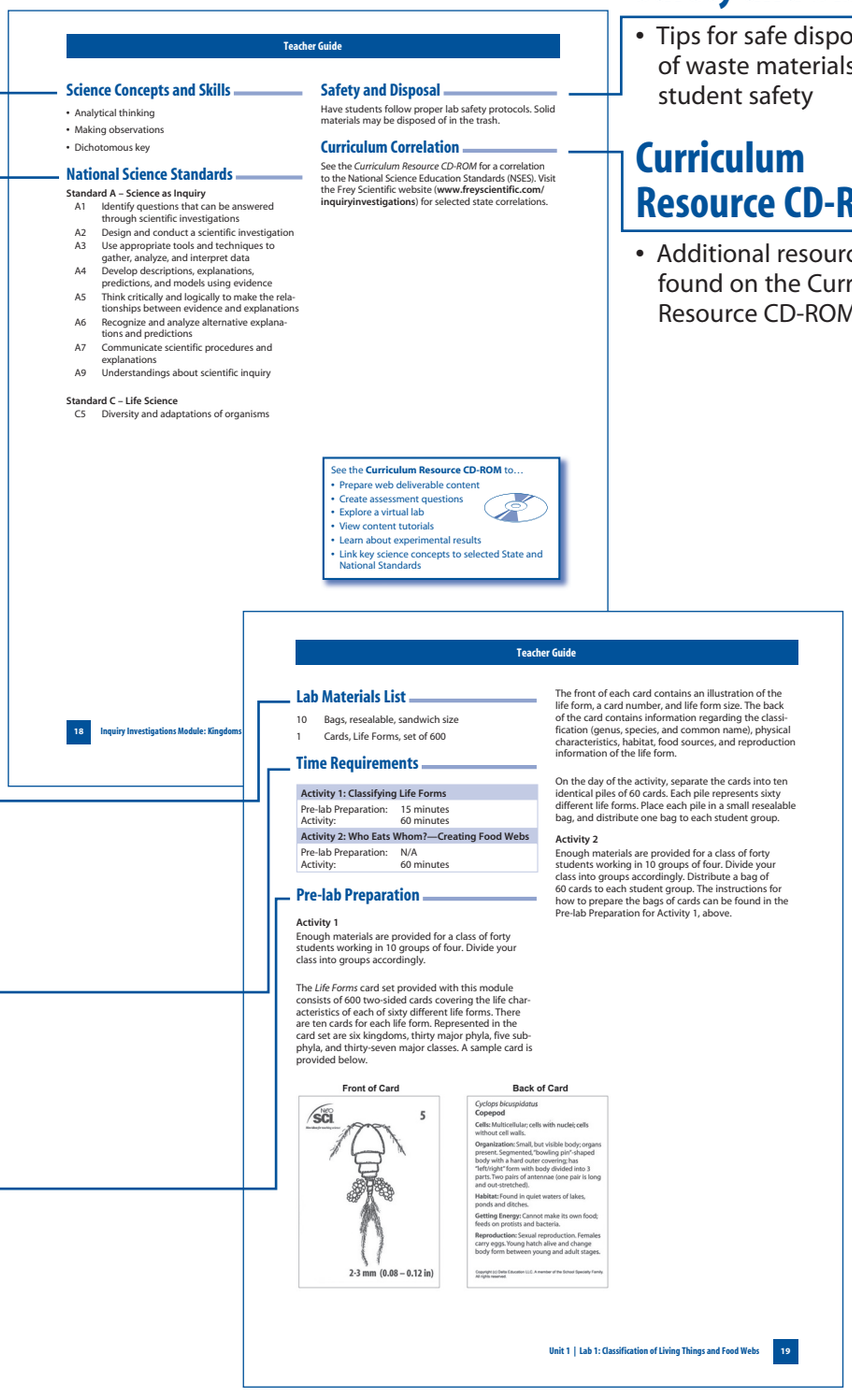
- Overview of any necessary pre-lab preparation

Safety and Disposal

- Tips for safe disposal of waste materials and student safety

Curriculum Resource CD-ROM

- Additional resources found on the Curriculum Resource CD-ROM



Teacher Guide

Science Concepts and Skills

- Analytical thinking
- Making observations
- Dichotomous key

National Science Standards

Standard A – Science as Inquiry

A1 Identify questions that can be answered through scientific investigations
A2 Design and conduct a scientific investigation
A3 Use appropriate tools and techniques to gather, analyze, and interpret data
A4 Develop descriptions, explanations, predictions, and models using evidence
A5 Think critically and logically to make the relationships between evidence and explanations
A6 Recognize and analyze alternative explanations and predictions
A7 Communicate scientific procedures and explanations
A9 Understandings about scientific inquiry

Standard C – Life Science

C5 Diversity and adaptations of organisms

Safety and Disposal

Have students follow proper lab safety protocols. Solid materials may be disposed of in the trash.

Curriculum Correlation

See the *Curriculum Resource CD-ROM* for a correlation to the National Science Education Standards (NSES). Visit the Frey Scientific website (**www.freyscientific.com/inquiryinvestigations**) for selected state correlations.

See the **Curriculum Resource CD-ROM** to…

- Prepare web deliverable content
- Create assessment questions
- Explore a virtual lab
- View content tutorials
- Learn about experimental results
- Link key science concepts to selected State and National Standards

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Teacher Guide

Lab Materials List

10 Bags, resealable, sandwich size
1 Cards, Life Forms, set of 600

Time Requirements

Activity 1: Classifying Life Forms	
Pre-lab Preparation:	15 minutes
Activity:	60 minutes
Activity 2: Who Eats Whom?—Creating Food Webs	
Pre-lab Preparation:	N/A
Activity:	60 minutes

Pre-lab Preparation

Activity 1

Enough materials are provided for a class of forty students working in 10 groups of four. Divide your class into groups accordingly.

The *Life Forms* card set provided with this module consists of 600 two-sided cards covering the life characteristics of each of sixty different life forms. There are ten cards for each life form. Represented in the card set are six kingdoms, thirty major phyla, five subphyla, and thirty-seven major classes. A sample card is provided below.

Front of Card

Back of Card

Cyclops bicuspidatus
Copepod

Cells: Multicellular; cells with nuclei; cells without cell walls.

Organization: Small, but visible body; organs present. Segmented, "bowling pin"-shaped body with a hard outer covering; has "left/right" form with body divided into 3 parts. Two pairs of antennae (one pair is long and out-stretched).

Habitat: Found in quiet waters of lakes, ponds and ditches.

Getting Energy: Cannot make its own food; feeds on protists and bacteria.

Reproduction: Sexual reproduction. Females carry eggs. Young hatch alive and change body form between young and adult stages.

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The front of each card contains an illustration of the life form, a card number, and life form size. The back of the card contains information regarding the classification (genus, species, and common name), physical characteristics, habitat, food sources, and reproduction information of the life form.

On the day of the activity, separate the cards into ten identical piles of 60 cards. Each pile represents sixty different life forms. Place each pile in a small resealable bag, and distribute one bag to each student group.

Activity 2

Enough materials are provided for a class of forty students working in 10 groups of four. Divide your class into groups accordingly. Distribute a bag of 60 cards to each student group. The instructions for how to prepare the bags of cards can be found in the Pre-lab Preparation for Activity 1, above.

Unit 1 | Lab 1: Classification of Living Things and Food Webs 19

A Closer Look at the Teacher Guide…

Objective

- Specific student goals of the activity

What you need

- Specific materials used in each activity

Safety and Disposal

- Important safety information specifically related to each activity

What to do

- Teacher friendly step-by-step procedures for each activity

Recording Observations

- Sample student data for each activity

Questions

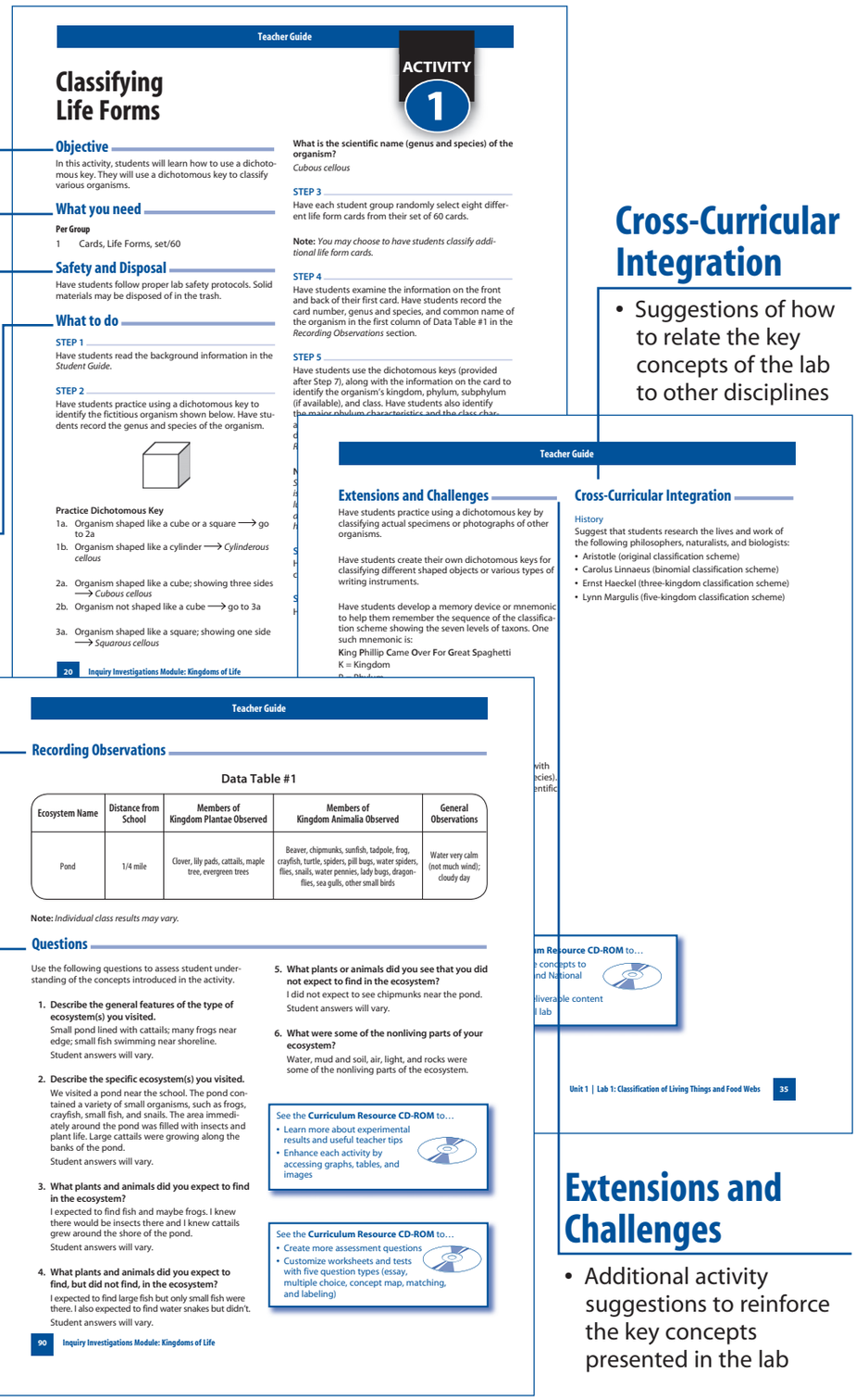
- Questions to assess student understanding of the activity

Cross-Curricular Integration

- Suggestions of how to relate the key concepts of the lab to other disciplines

Extensions and Challenges

- Additional activity suggestions to reinforce the key concepts presented in the lab



Teacher Guide

ACTIVITY 1

Classifying Life Forms

Objective

In this activity, students will learn how to use a dichotomous key. They will use a dichotomous key to classify various organisms.

What you need

Per Group

1 Cards, Life Forms, set/60

Safety and Disposal

Have students follow proper lab safety protocols. Solid materials may be disposed of in the trash.

What to do

STEP 1

Have students read the background information in the *Student Guide*.

STEP 2

Have students practice using a dichotomous key to identify the fictitious organism shown below. Have students record the genus and species of the organism.

Practice Dichotomous Key

1a. Organism shaped like a cube or a square ⟶ go to 2a

1b. Organism shaped like a cylinder ⟶ *Cylinderous cellous*

2a. Organism shaped like a cube; showing three sides ⟶ *Cubous cellous*

2b. Organism not shaped like a cube ⟶ go to 3a

3a. Organism shaped like a square; showing one side ⟶ *Squarous cellous*

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What is the scientific name (genus and species) of the organism?

Cubous cellous

STEP 3

Have each student group randomly select eight different life form cards from their set of 60 cards.

Note: *You may choose to have students classify additional life form cards.*

STEP 4

Have students examine the information on the front and back of their first card. Have students record the card number, genus and species, and common name of the organism in the first column of Data Table #1 in the *Recording Observations* section.

STEP 5

Have students use the dichotomous keys (provided after Step 7), along with the information on the card to identify the organism's kingdom, phylum, subphylum (if available), and class. Have students also identify the major phylum characteristics and the class char-

Teacher Guide

Extensions and Challenges

Have students practice using a dichotomous key by classifying actual specimens or photographs of other organisms.

Have students create their own dichotomous keys for classifying different shaped objects or various types of writing instruments.

Have students develop a memory device or mnemonic to help them remember the sequence of the classification scheme showing the seven levels of taxons. One such mnemonic is:

King **P**hillip **C**ame **O**ver **F**or **G**reat **S**paghetti

K = Kingdom

Cross-Curricular Integration

History

Suggest that students research the lives and work of the following philosophers, naturalists, and biologists:

- Aristotle (original classification scheme)
- Carolus Linnaeus (binomial classification scheme)
- Ernst Haeckel (three-kingdom classification scheme)
- Lynn Margulis (five-kingdom classification scheme)

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Teacher Guide

Recording Observations

Data Table #1

Ecosystem Name	Distance from School	Members of Kingdom Plantae Observed	Members of Kingdom Animalia Observed	General Observations
Pond	1/4 mile	Clover, lily pads, cattails, maple tree, evergreen trees	Beaver, chipmunks, sunfish, tadpole, frog, crayfish, turtle, spiders, pill bugs, water spiders, flies, snails, water pennies, lady bugs, dragonflies, sea gulls, other small birds	Water very calm (not much wind); cloudy day

Note: *Individual class results may vary.*

Questions

Use the following questions to assess student understanding of the concepts introduced in the activity.

1. **Describe the general features of the type of ecosystem(s) you visited.**
   Small pond lined with cattails; many frogs near edge; small fish swimming near shoreline.
   Student answers will vary.
2. **Describe the specific ecosystem(s) you visited.**
   We visited a pond near the school. The pond contained a variety of small organisms, such as frogs, crayfish, small fish, and snails. The area immediately around the pond was filled with insects and plant life. Large cattails were growing along the banks of the pond.
   Student answers will vary.
3. **What plants and animals did you expect to find in the ecosystem?**
   I expected to find fish and maybe frogs. I knew there would be insects there and I knew cattails grew around the shore of the pond.
   Student answers will vary.
4. **What plants and animals did you expect to find, but did not find, in the ecosystem?**
   I expected to find large fish but only small fish were there. I also expected to find water snakes but didn't.
   Student answers will vary.
5. **What plants or animals did you see that you did not expect to find in the ecosystem?**
   I did not expect to see chipmunks near the pond.
   Student answers will vary.
6. **What were some of the nonliving parts of your ecosystem?**
   Water, mud and soil, air, light, and rocks were some of the nonliving parts of the ecosystem.

See the **Curriculum Resource CD-ROM** to…

- Learn more about experimental results and useful teacher tips
- Enhance each activity by accessing graphs, tables, and images

See the **Curriculum Resource CD-ROM** to…

- Create more assessment questions
- Customize worksheets and tests with five question types (essay, multiple choice, concept map, matching, and labeling)

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A Closer Look at the Appendix…

Laboratory Notebook

- Useful tips on how to record, organize, and understand data

The Laboratory Notebook: Recording, Analyzing, and Reporting Data

Data sets are unbiased information gathered through the scientific process that can lead to knowledge and understanding. To be useful, data must be recorded, organized, graphed, analyzed, and reported.

Recording Data

Science deals with verifiable observations. All scientists must keep clear and accurate records of their observations. It is critical that these notebook recordings are made at the time of observation.

Recording data can be done manually through the reading of an instrument, such as a thermometer, and writing down measurements in a lab notebook or data book. Some data measurement probes and instruments (temperature, balance, pH, dissolved oxygen to name a few) can sample and transmit data to a computer for storage in a data table.

At times, your investigation may require the use of a video or photo camera to record visual information. Try to include some dimensional reference (a ruler or other feature) in your shots to provide the correct perspective. Digital photo cameras and scanners allow an investigator to capture experimental results.

Organizing Data

Make sure data sets are presented in tables listed in correct relation to each other. Sometimes your investigations may call for the collection of very large data sets. One way to manage this pile of data is through a database—a large, complex list of facts and information. A database can be a card file or an electronic program that can both recall and merge data. FileMaker Pro (by FileMaker, Inc) or Excel (by Microsoft) are powerful database programs that combine database management and desktop-to-Web network publishing

reproducibility of a result. For example, if you measure a quantity several times and the values agree closely with one another, your measurement is precise. Accuracy describes how close a measured value is to the true or known value. The closer a measured value is to the true value, the more accurate it is. Let's investigate this further.

For example, examine the data sets below.

Procedure 1:	20.1
	20.1
	20.2
	20.0
Procedure 2:	24.5
	25.6
	26.1
	25.1

If the true value is 25.3, then data collected from procedure 2 is more accurate but less precise than the data collected from procedure 1. In this case the precision is poor but the accuracy is good. An ideal procedure is both accurate and precise.

Data Books

The best method of record-keeping is to record observations in a laboratory notebook or data book. Ideally, this should be a stiff-covered book, permanently bound, not loose-leaf, preferably with square grid pages.

Keep records in a diary form, recording the date first. If you make observations for two or more investigations on the same day, use numbers or abbreviations of the titles as subheadings.

Data may be recorded as words. In the laboratory, time is short. Make notes as brief as possible—but to the point. You may choose to sketch your observations. Drawings, digital images, and digital video are all useful data recording techniques.

Graphing Data

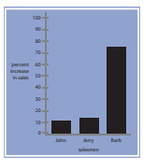
- Examples of ways to graphically present data

Graphing Data

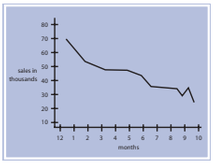
When you make a graph, the first step is to determine which kind to create. What you want to show and the kind of data you have will determine which graph type is most useful:

Circle graph – useful in showing parts or proportions of a whole.

Bar graph – useful for comparing quantities and changes over time.



Line graph – useful for comparing two sets of data or showing changes and trends over time.



Analyzing Data

When you analyze data you look for trends or patterns. You also look to see whether or not your data supports your reasoned guess—your hypothesis. If you have access to a computer, special analysis programs or spreadsheets (e.g., Microsoft Excel®) allow you to tabulate, manipulate (perform mathematical calculations), and graph your data.

Laboratory Reports

Discoveries become a part of science only if they are reported to others. In writing, scientists must express themselves clearly so that others can repeat their procedures exactly. Scientific reports usually follow the following form:

- **Title**
- **Introduction**: how the problem arose and a summary of past investigative work.
- **Materials and equipment**
- **Procedure**: complete and exact account of what was done in gathering the data.
- **Results**: data obtained from the procedure, often in the form of tables and graphs.
- **Discussion**: points out the relationship between the data and the purpose of the investigation.
- **Conclusion**: summary of the meaning of the results, often suggesting further work that might be done to clarify issues that the data may have uncovered.
- **References**: published scientific reports that have been specifically mentioned in the report.

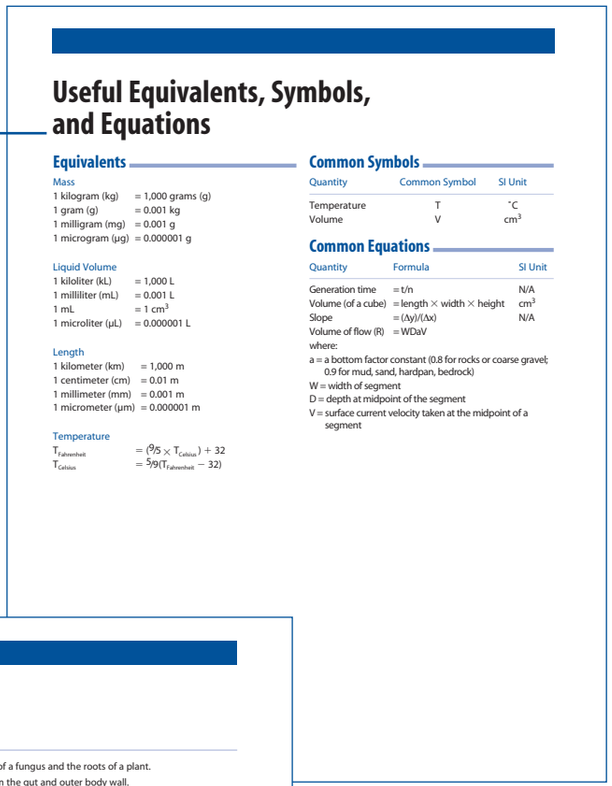
Laboratory Reports

- General outline for scientific reports

A Closer Look at the Appendix…

Useful Equivalents, Symbols, and Equations

- Quick reference guide of common conversions, symbols, and equations



Useful Equivalents, Symbols, and Equations

Equivalents

Mass

1 kilogram (kg)	= 1,000 grams (g)
1 gram (g)	= 0.001 kg
1 milligram (mg)	= 0.001 g
1 microgram (µg)	= 0.000001 g

Liquid Volume

1 kiloliter (kL)	= 1,000 L
1 milliliter (mL)	= 0.001 L
1 mL	= 1 cm^3
1 microliter (µL)	= 0.000001 L

Length

1 kilometer (km)	= 1,000 m
1 centimeter (cm)	= 0.01 m
1 millimeter (mm)	= 0.001 m
1 micrometer (µm)	= 0.000001 m

Temperature

$T_{Fahrenheit} = (^9/_5 \times T_{Celsius}) + 32$

$T_{Celsius} = {}^5/_9(T_{Fahrenheit} - 32)$

Common Symbols

Quantity	Common Symbol	SI Unit
Temperature	T	°C
Volume	V	cm^3

Common Equations

Quantity	Formula	SI Unit
Generation time	= t/n	N/A
Volume (of a cube)	= length × width × height	cm^3
Slope	= (Δy)/(Δx)	N/A
Volume of flow (R)	= WDaV	

where:

a = a bottom factor constant (0.8 for rocks or coarse gravel; 0.9 for mud, sand, hardpan, bedrock)

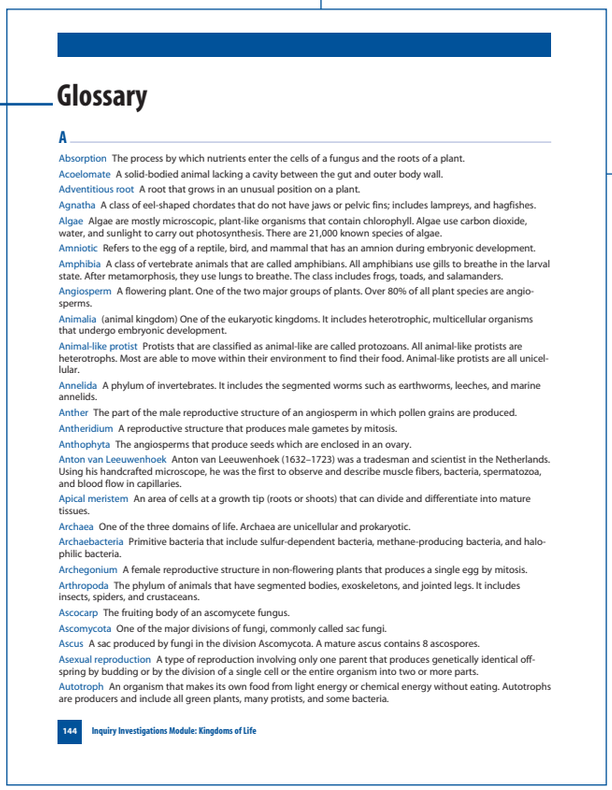
W = width of segment

D = depth at midpoint of the segment

V = surface current velocity taken at the midpoint of a segment

Glossary

- Comprehensive glossary of key terms



Glossary

A

Absorption The process by which nutrients enter the cells of a fungus and the roots of a plant.

Acoelomate A solid-bodied animal lacking a cavity between the gut and outer body wall.

Adventitious root A root that grows in an unusual position on a plant.

Agnatha A class of eel-shaped chordates that do not have jaws or pelvic fins; includes lampreys, and hagfishes.

Algae Algae are mostly microscopic, plant-like organisms that contain chlorophyll. Algae use carbon dioxide, water, and sunlight to carry out photosynthesis. There are 21,000 known species of algae.

Amniotic Refers to the egg of a reptile, bird, and mammal that has an amnion during embryonic development.

Amphibia A class of vertebrate animals that are called amphibians. All amphibians use gills to breathe in the larval state. After metamorphosis, they use lungs to breathe. The class includes frogs, toads, and salamanders.

Angiosperm A flowering plant. One of the two major groups of plants. Over 80% of all plant species are angiosperms.

Animalia (animal kingdom) One of the eukaryotic kingdoms. It includes heterotrophic, multicellular organisms that undergo embryonic development.

Animal-like protist Protists that are classified as animal-like are called protozoans. All animal-like protists are heterotrophs. Most are able to move within their environment to find their food. Animal-like protists are all unicellular.

Annelida A phylum of invertebrates. It includes the segmented worms such as earthworms, leeches, and marine annelids.

Anther The part of the male reproductive structure of an angiosperm in which pollen grains are produced.

Antheridium A reproductive structure that produces male gametes by mitosis.

Anthophyta The angiosperms that produce seeds which are enclosed in an ovary.

Anton van Leeuwenhoek Anton van Leeuwenhoek (1632–1723) was a tradesman and scientist in the Netherlands. Using his handcrafted microscope, he was the first to observe and describe muscle fibers, bacteria, spermatozoa, and blood flow in capillaries.

Apical meristem An area of cells at a growth tip (roots or shoots) that can divide and differentiate into mature tisssues.

Archaea One of the three domains of life. Archaea are unicellular and prokaryotic.

Archaebacteria Primitive bacteria that include sulfur-dependent bacteria, methane-producing bacteria, and halophilic bacteria.

Archegonium A female reproductive structure in non-flowering plants that produces a single egg by mitosis.

Arthropoda The phylum of animals that have segmented bodies, exoskeletons, and jointed legs. It includes insects, spiders, and crustaceans.

Ascocarp The fruiting body of an ascomycete fungus.

Ascomycota One of the major divisions of fungi, commonly called sac fungi.

Ascus A sac produced by fungi in the division Ascomycota. A mature ascus contains 8 ascospores.

Asexual reproduction A type of reproduction involving only one parent that produces genetically identical offspring by budding or by the division of a single cell or the entire organism into two or more parts.

Autotroph An organism that makes its own food from light energy or chemical energy without eating. Autotrophs are producers and include all green plants, many protists, and some bacteria.

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A Closer Look at the Student Guide…

Objectives

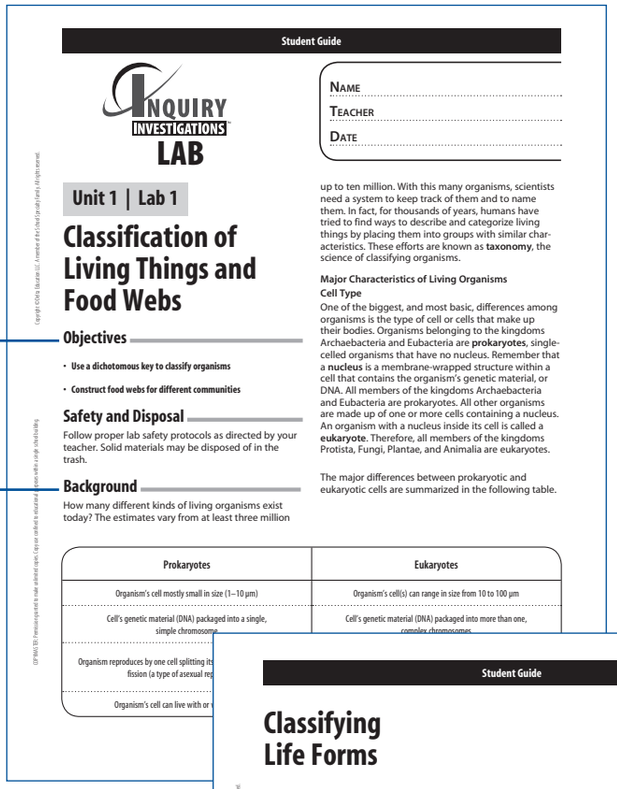
- Key concepts and student goals for the lab

Background

- Science information related to the lab topic

What to do

- Step-by-step procedures for each activity



Student Guide

INQUIRY INVESTIGATIONS LAB

Unit 1 | Lab 1

Classification of Living Things and Food Webs

Name

Teacher

Date

Objectives

- Use a dichotomous key to classify organisms
- Construct food webs for different communities

Safety and Disposal

Follow proper lab safety protocols as directed by your teacher. Solid materials may be disposed of in the trash.

Background

How many different kinds of living organisms exist today? The estimates vary from at least three million up to ten million. With this many organisms, scientists need a system to keep track of them and to name them. In fact, for thousands of years, humans have tried to find ways to describe and categorize living things by placing them into groups with similar characteristics. These efforts are known as **taxonomy**, the science of classifying organisms.

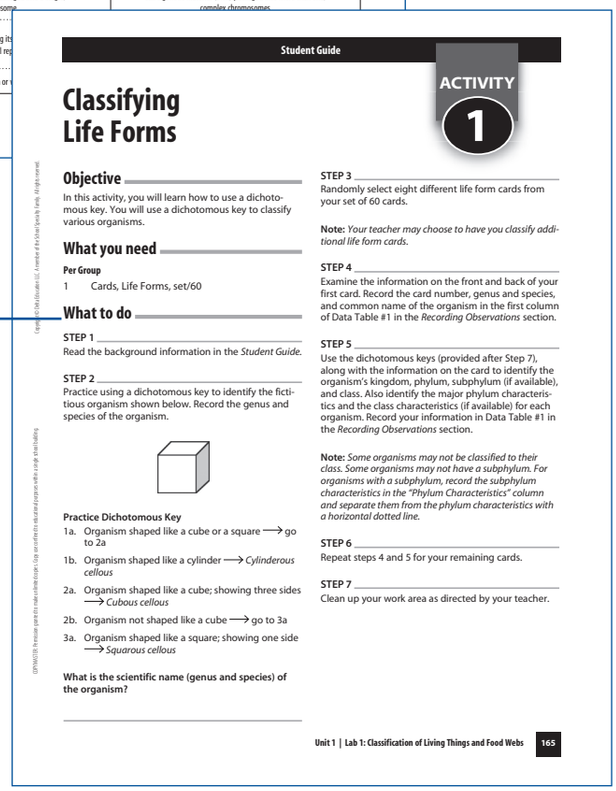
Major Characteristics of Living Organisms

Cell Type

One of the biggest, and most basic, differences among organisms is the type of cell or cells that make up their bodies. Organisms belonging to the kingdoms Archaebacteria and Eubacteria are **prokaryotes**, single-celled organisms that have no nucleus. Remember that a **nucleus** is a membrane-wrapped structure within a cell that contains the organism's genetic material, or DNA. All members of the kingdoms Archaebacteria and Eubacteria are prokaryotes. All other organisms are made up of one or more cells containing a nucleus. An organism with a nucleus inside its cell is called a **eukaryote**. Therefore, all members of the kingdoms Protista, Fungi, Plantae, and Animalia are eukaryotes.

The major differences between prokaryotic and eukaryotic cells are summarized in the following table.

Prokaryotes	Eukaryotes
Organism's cell mostly small in size (1–10 µm)	Organism's cell(s) can range in size from 10 to 100 µm
Cell's genetic material (DNA) packaged into a single, simple chromosome	Cell's genetic material (DNA) packaged into more than one, complex chromosomes
Organism reproduces by one cell splitting its fission (a type of asexual re	
Organism's cell can live with or	



Student Guide

ACTIVITY 1

Classifying Life Forms

Objective

In this activity, you will learn how to use a dichotomous key. You will use a dichotomous key to classify various organisms.

What you need

Per Group

1 Cards, Life Forms, set/60

What to do

STEP 1

Read the background information in the *Student Guide*.

STEP 2

Practice using a dichotomous key to identify the fictitious organism shown below. Record the genus and species of the organism.

Practice Dichotomous Key

1a. Organism shaped like a cube or a square ⟶ go to 2a

1b. Organism shaped like a cylinder ⟶ *Cylinderous cellous*

2a. Organism shaped like a cube; showing three sides ⟶ *Cubous cellous*

2b. Organism not shaped like a cube ⟶ go to 3a

3a. Organism shaped like a square; showing one side ⟶ *Squarous cellous*

What is the scientific name (genus and species) of the organism?

STEP 3

Randomly select eight different life form cards from your set of 60 cards.

Note: *Your teacher may choose to have you classify additional life form cards.*

STEP 4

Examine the information on the front and back of your first card. Record the card number, genus and species, and common name of the organism in the first column of Data Table #1 in the *Recording Observations* section.

STEP 5

Use the dichotomous keys (provided after Step 7), along with the information on the card to identify the organism's kingdom, phylum, subphylum (if available), and class. Also identify the major phylum characteristics and the class characteristics (if available) for each organism. Record your information in Data Table #1 in the *Recording Observations* section.

Note: *Some organisms may not be classified to their class. Some organisms may not have a subphylum. For organisms with a subphylum, record the subphylum characteristics in the "Phylum Characteristics" column and separate them from the phylum characteristics with a horizontal dotted line.*

STEP 6

Repeat steps 4 and 5 for your remaining cards.

STEP 7

Clean up your work area as directed by your teacher.

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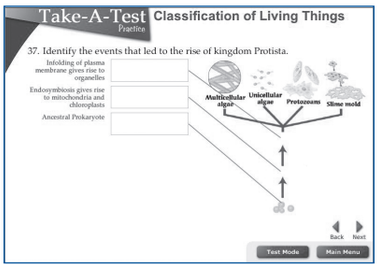
A Closer Look at the Curriculum Resource CD-ROM*…

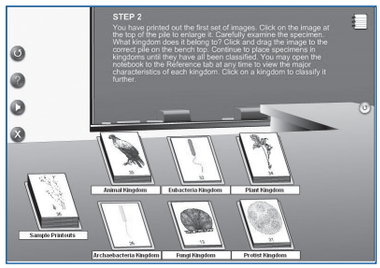
Content Tutorials

- Comprehensive tutorials offering self-paced, individualized lessons through illustrations and animations
- Hyper-linked glossary of key concepts and terms



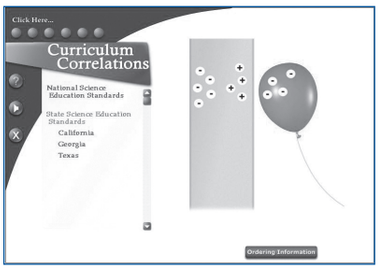
Assessment Monitoring

- Access test questions in either Practice or Test Mode to provide students with exam experience
- Create customized tests and worksheets with various question types, as well as dynamic multimedia tutorials and presentations—saving them on a disk or in web-ready format for easy Internet access



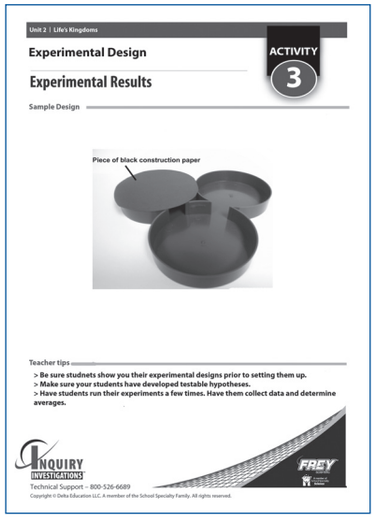
Virtual Laboratory

- Explore the object-based virtual lab environment. The virtual lab allows students to interactively perform every step of a lab activity by manipulating lab equipment on their virtual lab workbench.
- The electronic notebook allows students to record and analyze data.



Correlations to National and selected State Standards

- Key concepts correlated to the National Science Education Standards and 25 selected State standards linked to the Frey Scientific website (**www.freyscientific.com/inquiryinvestigations**)



Experimental Results

- Useful teacher tips for each activity, as well as in-depth experimental data analysis
- Graphs, tables, and images are provided to enhance each activity.

*CD-ROM System Requirements: Windows 2000 or higher, VISTA-compatible, Mac 9.2 or higher (including OSX), 128 MB RAM