

CBL BIOLOGY: LIFE SCIENCE OPTION

BSCS Green Version 10th edition

Biology An Ecological Approach

Lesson Plan Quarter 1, Week 1, Day 1



Outcomes for Today

Standards Focus: 1fgh 6def

PREPARE

1. Background knowledge necessary for today's reading.

What is an organism?

Are you an organism?

Do living things have any impact on each other?

What impact do humans have on their environment?

2. Vocabulary Word Wall.

Introduce 5 important, useful words from today's reading.

organism ecology biology energy food

- show, say, explain, expand, explode or buzz about the word briefly

- show, say and define the word quickly and add to the word wall

READ

3. Review the vocabulary and concepts previously covered in this chapter.

(Not applicable on day 1)

Start at the beginning of the chapter and review the concepts and vocabulary covered so far

- mention that the setting is our home, planet earth

4. Read directions for investigation/activity.

5. Read text. Ch1 The Web of Life pp.2-7

- Shared Reading RRP: Read, React, Predict every 2-3 pages
 Tape Partner Choral Silent Round Robin Reading

Setting	Characters	pages
Earth	Organisms	6
Young plant	Grasshopper	6
Web	Spider	6
Leaf	Caterpillar	7

RESPOND

6. Fix the facts. Clarify what's important.

Discuss the reading and add 3-5 events to the setting

- discuss the story to *fix the facts*: who, what, when, where, why
- decide on the 3-5 most important concepts and add these to the timeline

Students might mention:

- Plants make food.
- Animals eat plants.
- Animals eat other animals.
- People study the relationships found between living things.
- Biology is the science of life.

7. Post information on the billboard. Add new information to ongoing class projects on the wall.

- new character/concept information can be added to an Open Mind Portrait
- an answer can be added to a question from the KWL Chart
- a new location or change can be added to the chart

EXPLORE

8. Explore today's investigation with inquiry activities.

9. Explore today's simulation with inquiry activities.

10. Collect data and post.

One possible activity:

How we see things

Introduction

Scientists are trained to look at living things and ask questions. Sometimes our own history can impact the way we see things. It has been said that we don't see things as they are but rather we see them as we are. Ask students what this statement means. Share several examples with them. For example, the way people are dressed may tell us something about them or it may tell us more about ourselves.

Investigation Activity

Materials: Paper plates and drawing pens

Provide students with a paper plate. On one side, have students draw a picture of their face and include details of how they see themselves. On the other side, have students draw the face of someone they will never forget.

Other possible activities for a class group or individual

- Bookmark Open Mind Portrait g6 Graphic Organizer
g7 Main Idea Graphic Organizer c1-12 Cubing Postcard Prop
Poster Ad Map Retelling Reader's Theatre Cartoon Rap

Key Questions

Look at all of the posted faces of the people who will not be forgotten. What kinds of characteristics do you see?

Are there more happy or not-so-happy faces?

Who or what is responsible for the facial expressions?

Remember to ask literal structural idea craft author literature life
evaluate and inference questions every day.

Key Paragraph

Animals eat plants, other animals, or both. Organisms are connected to each other in the web of life by their need for energy to live and reproduce. Green plants get energy directly from sunlight and use it to make their food. Animals that eat plants or other animals get the sun's energy indirectly. No matter where the energy comes from, without it, an organism dies.

EXTEND

11. Prompt every student to write a short product tied to today's reading.

All humans must eat. Some humans do not eat any animals or animal products. They are known as vegetarians. Do you know any vegetarians? Write a short paragraph supporting the idea of not eating any animals or animal products.

12. Close with a short summary.

Extend the reading to the students' lives or to the world.

CBL BIOLOGY: LIFE SCIENCE OPTION

BSCS Green Version 10th edition

Biology An Ecological Approach

Lesson Plan Quarter 1, Week 1, Day 2



Outcomes for Today

Standards Focus: 1fgh 6def

PREPARE

1. Background knowledge necessary for today's reading.

Living things are organisms.

The web of life connects living things.

Living things are different and similar in many ways to their characteristic qualities and traits.

2. Vocabulary Word Wall.

Introduce 5 important, useful words from today's reading.

relationship
similarity

representative

complex

difference

- show, say, explain, expand, explode or buzz about the word briefly
- show, say and define the word quickly and add to the word wall

READ

3. Review the vocabulary and concepts previously covered in this chapter.

Start at the beginning and review the concepts covered so far

- mention the setting and main ideas
- point to concept chart as you quickly review it

4. Read directions for investigation/activity.

1.1 (attached to this lesson plan p. 4)

5. Read text.

- Shared Reading RRP: Read, React, Predict every 2-3 pages
 Tape Partner Choral Silent Round Robin Reading

setting	Characters	pages
Your classroom	The other students, teacher, aides	4

RESPOND

6. Fix the facts. Clarify what's important.

Discuss the reading and add 3-5 concepts ideas chart

- discuss the investigation to *fix the facts*: who, what, when, where, why
- decide on the 3-5 most important ideas or concepts and add these to the chart

Students might mention:

There are many differences among organisms.
Some organisms are hard to tell apart.

7. Post information on the billboard. Add new information to ongoing class projects on the wall.

- new character or concept and information can be added to an Open Mind Portrait
- an answer can be added to a question from the KWL Chart
- a new or change can be added to the map

EXPLORE

8. Explore today's investigation with inquiry activities.

One possible activity:

Read Investigation 1.1 Teacher Version attached to the lesson plan. (Page 8)

Other possible activities for a class group or individual

- Bookmark Open Mind Portrait g6 Graphic Organizer
 g7 Main Idea Graphic Organizer c1-12 Cubing Postcard Prop
 Poster Ad Map Retelling Reader's Theatre Cartoon Rap

9. Explore today's simulation with inquiry activities.

10. Collect data and post.

Cards will be collected for next activity.

Bridge to a language building activity

Teach a Mini Lesson using *Write AHEAD* pages # 30 and 31
 [The Write Ahead Activities are on individual work-pages in a separate file]

Student Activity

Look at the pictures on pages 30 and 31 in the text. Have students determine the total number of organisms in each picture. Ask them how they arrived at this figure. Have them do the same with a local population of similar organisms. For example, students could look out the window and determine the number of blades of grass in a plot or people in the street.

Key Questions

Give examples of relationships between living things.

Which of these relationships are good for both, good for one, good for neither?

What is one relationship you have with a living thing other than a human?

Remember to ask literal structural idea craft author literature life
evaluate and inference questions every day.

Key Paragraph

How can we begin to understand the **complex** interrelationships among living things? One place to start is to begin to describe **differences** and **similarities**. Look around the room. How are you different from the other humans here? In what ways are you similar? These must be observable characteristics. One place to begin this process of observing is to identify characteristics of each living thing.

EXTEND

11. Prompt every student to write a short product tied to today's reading.

Remember back to when you looked around the room at the other students for external similarities and differences. Write a short paragraph describing one characteristic you can't measure by just looking at a person but that you admire just the same.

12. Close with a short summary.

Extend the reading to the students' lives or to the world.



Ch. 1 Student Investigation # 1.1 Part I

Your Powers of Observation

Objective: To begin to understand the **relationships** among organisms by describing and listing characteristics of **representative** samples.

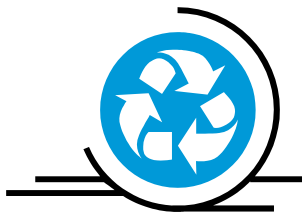
Introduction

How can we begin to understand the **complex** interrelationships among living things?

One place to start is to begin to describe **differences** and **similarities**. Look around the room. How are you different from the other humans here? In what ways are you similar? These must be observable characteristics. One place to begin this process of observing is to identify characteristics of each living thing.

Procedure

You will be looking at examples of living things. You will then write descriptions of these living things by describing similarities and differences on a 3X5 card. Your group will then combine your observations on one card. These cards will be saved for the next activity. Your teacher will direct you in this activity. You will work in small student teams and move to various tables with a variety of specimens. Use descriptive words such as size, color, and shape in describing your organism.



Ch. 1 Student Investigation # 1.1 2-3 periods/days

Your Powers of Observation *Teacher Version*

Note: This activity is a simplified version of the one in the text. You may choose to extend this activity as outlined in the text.

Objective: To begin to understand the relationships among organisms by describing and listing characteristics of representative samples.

Materials: A pair of working eyes, pencil, 3 X 5 index cards, samples of a wide variety of living organisms (including numerous examples from magazine clippings, computer printouts, etc.).

Introduction

Begin with this question. How can you begin to understand the complex interrelationships among living things? One place to start is to begin to describe differences and similarities.

Teacher Note: The examples and specimens used in this study can be as diverse as time and imagination permit. On one end of the spectrum, simple magazine clippings and computer printouts can be used leading up to various specimens from scientific or personal collections.

Directions: Collect representative examples of various living things. Try to include a variety of plants and animals. Place four similar specimens each (label 1-4) of a similar species in individual groups (label A, B, C, etc.) about the classroom. Divide students into small teams of 2-4 students each.

Activity Level I (Day 1)

Direct the students to the various locations within the classroom. Instruct them to individually record specific similarities and differences among the four specimens. Using the descriptions of similarities, have them individually write a description of each group. Note: It is acceptable to use drawings as part of their descriptions. Have students combine their descriptions into one group description so that each student group submits one description for each group of specimens (A, B, C, etc.) on a 3 X 5 index card... After 5-10 minutes have students move to the next table and group of specimens to begin the process again. Do this as time per period permits (generally not more than 4 stations).

Activity Level II (Day 2)

Review the descriptions from the first day and introduce some examples of good descriptive terms from student work on the first day/session. Direct the students to repeat their observations and recordings. Include some new specimens if possible. Create new groupings of students.

Activity Level III (Day 3)

Rearrange the classroom so that the specimens are now mixed up. Mix the student-generated descriptions contained on the 3 X 5 cards among the specimens. Direct yet another new group of students to a specific starting place and have students match descriptions to specimens.

Note: As a follow up, post descriptions and specimen examples on the wall. You may want to have students name their specimens with new names of their creation. (Be careful for hidden meanings, etc.)

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Biology An Ecological Approach
Lesson Plan Quarter 1, Week 1, Day 3



Outcomes for Today

Standards Focus: 1fgh 6def

PREPARE

1. Background knowledge necessary for today's reading.

How do plants make food?
 Why do organisms eat other organisms?
 How do living things gain energy?

2. Vocabulary Word Wall.

Introduce 5 important, useful words from today's reading.

producer **consumer** **decomposer** **community**
microorganism

- show, say, explain, expand, explode or buzz about the word briefly
- show, say and define the word quickly and add to the word wall

READ

3. Review the vocabulary and concepts previously covered in this chapter

Start at the beginning of the chapter and review the concepts and vocabulary covered so far

- mention that organisms interact with other organisms in many ways and these interactions are not in isolation

4. Read directions for simulation (Explore Section 9)

5. Read text Ch1 The Web of Life pp.8-11

- Shared Reading RRP: Read, React, Predict every 2-3 pages
 Tape Partner Choral Silent Round Robin Reading

Setting	Characters	pages
grasses	grasshopper	8-9
raspberry bush	insects	8-9
grass & raspberry bush		
raspberry bush	spider	8-9
above grasses	rabbit	8-9
in the neighborhood of	bird	8-9
grasses and raspberry		
bushes	fox	8-9

RESPOND

6. Fix the facts. Clarify what's important.

Discuss the reading and add 3-5 events to the setting

- discuss the story to *fix the facts*: who, what, when, where, why
- decide on the 3-5 most important concepts and add these to the timeline

Students might mention:

- Grasses make food (producers).
- Grasshoppers eat grasses.
- Birds eat grasshoppers and other insects.
- Rabbits eat raspberries.
- The fox eats both birds and rabbits.
- Microorganisms eat the leftovers and dead plants and animals.
- Nothing is wasted.
- Arrows show the direction of energy flow.

7. Post information on the billboard. Add new information to ongoing class projects on the wall.

- new character/concept information can be added to an Open Mind Portrait
- an answer can be added to a question from the KWL Chart
- a new location or change can be added to the chart

EXPLORE

8. Explore today's investigation with inquiry activities.

9. Explore today's simulation with inquiry activities.

One possible activity:

Understanding food webs and food chains can be a complex task. One way to understand these concepts is through simulations.

Go to the following link:

<http://www.cbc.yale.edu/courseware/ms/index.html>

This is a food web simulation. Have students follow the directions and play the game *Food Web Kerplunk. An Ecosystem Game*. Make sure you try this simulation before the lesson. Have students record their observations for posting on the wall.

10. Collect data and post.

Other possible activities for a class group or individual

Bookmark Open Mind Portrait g6 Graphic Organizer
 g7 Main Idea Graphic Organizer c1-12 Cubing Postcard Prop
 Poster Ad Map Retelling Reader's Theatre Cartoon Rap

Key Questions

How do producers differ from consumers?

How do reproduction and death contribute to the population count?

Why are decomposers important? What would happen if they did not exist in nature?

Remember to ask literal structural idea craft author literature life
 evaluate and inference questions every day.

Key Paragraph

Food webs and food chains tend to keep the numbers of living organisms in balance. The rabbits live off green plants, and many other animals including humans, live off the rabbits. This might appear to be hard on the rabbits, but rabbits produce many offspring in a short time. Imagine how many rabbits there would be if they reproduced without control.

EXTEND

11. Prompt every student to write a short product tied to today's reading.

Some animals eat other animals to live. A few animals eat their own kind. They are referred to as cannibalistic. Is there ever a time when you feel it would be acceptable for humans to eat the flesh of another human? In a short paragraph, explain your reasons and the setting.

12. Close with a short summary.

Extend the reading to the students' lives or to the world.

CBL BIOLOGY: LIFE SCIENCE OPTION
BSCS Green Version 10th edition
Biology An Ecological Approach
Lesson Plan Quarter 1, Week 1, Day 4



Outcomes for Today

Standards Focus: 1fgh 6def

PREPARE

1. Background knowledge necessary for today's reading.

Living things are organisms.

The web of life connects living things.

Living things are different and similar in many ways. They are classified according to their characteristic qualities and traits.

2. Vocabulary Word Wall.

Introduce 5 important, useful words from today's reading.

specimen **living** **non-living** **descriptive** **observation**

- show, say, explain, expand, explode or buzz about the word briefly
- show, say and define the word quickly and add to the word wall

READ

3. Review the vocabulary and concepts previously covered in this chapter.

Start at the beginning and review the concepts covered so far

- mention the setting and main ideas
- point to concept chart as you quickly review it

Mention that organisms are what they eat.

Recall that the study of living things and their relationships with the living and non-living world is called **ecology**.

Biology is the study of living things.

4. Read directions for investigation/activity. 1.1 (attached to this lesson plan p. 4)

Note: This is Activity Level II (*There are three levels in this investigation*) of the investigation as outlined in the Teacher Version attached to this lesson plan. If you have not done Level I, this should be done now.

5. Read text.

- Shared Reading RRP: Read, React, Predict every 2-3 pages
 Tape Partner Choral Silent Round Robin Reading

setting	Characters	pages
Your classroom	The various specimens selected for level II of this activity.	5 (of this lesson plan)

RESPOND

6. Fix the facts. Clarify what's important.

Discuss the reading and add 3-5 concepts ideas chart

- discuss the investigation to *fix the facts*: who, what, when, where, why
- decide on the 3-5 most important ideas or concepts and add these to the chart

Students might mention:

- "I remember this one (individual specimen) from last time."
- "I recognize my terms from the other day."
- There are new living things here.

7. Post information on the billboard. Add new information to ongoing class projects on the wall.

- new character or concept and information can be added to an Open Mind Portrait
- an answer can be added to a question from the KWL Chart
- a new or change can be added to the map

EXPLORE

8. Explore today's investigation with inquiry activities.

One possible activity:

Read Investigation 1.1 (Teacher Version Level II will be done for this lesson) attached to the lesson plan. (Page 17)

Other possible activities for a class group or individual

Bookmark Open Mind Portrait g6 Graphic Organizer

g7 Main Idea Graphic Organizer c1-12 Cubing Postcard Prop

Poster Ad Map Retelling Reader's Theatre Cartoon Rap

9. Explore today's simulation with inquiry activities.

10. Collect data and post.

Cards will be collected for next activity.

Bridge to a language building activity

Teach a Mini Lesson using *Write AHEAD* page# 34

[The Write Ahead Activities are on individual work-pages in a separate file]

Student Activity

Observe the two illustrations on page 34. Figure 2.5

Ask students to explain what is going on based only on what they can see in the illustration. Ask students which one of the cages is currently more like "their world" and why. (This could also be a writing prompt.)

Key Questions

How have your powers of observation changed since the last time you did this activity?

What is easier, writing a clear description or selecting the specimen another team has described? Why?

What are some key descriptive words you have learned/used in this investigation?

Remember to ask literal structural idea craft author literature life
 evaluate and inference questions every day.

Key Paragraph

You will be looking at examples of living things. You will then write descriptions of these living things by describing similarities and differences on a 3X5 card. Your group will

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www.scu.edu/character

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then combine your observations on one card. These cards will be saved for the next activity. Your teacher will direct you in this activity. You will work in small student teams and move to various tables with a variety of specimens. Use descriptive words such as size, color, and shape in describing your organism.

EXTEND

11. Prompt every student to write a short product tied to today's reading.

Select one of the specimens you described in today's activity. Write a little story from the specimen's point of view about how they felt being inspected, poked, prodded, and described. You might want to open with a statement such as, "Hello, I am Gerry Geranium. Today I was put on display. A bunch of large humanoid....."

12. Close with a short summary.

Extend the reading to the students' lives or to the world.



Ch. 1 Student Investigation # 1.1 Part I

Your Powers of Observation

Objective: To begin to understand the **relationships** among organisms by describing and listing characteristics of **representative** samples.

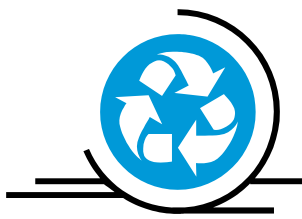
Introduction

How can we begin to understand the **complex** interrelationships among living things?

One place to start is to begin to describe **differences** and **similarities**. Look around the room. How are you different from the other humans here? In what ways are you similar? These must be observable characteristics. One place to begin this process of observing is to identify characteristics of each living thing.

Procedure

You will be looking at examples of living things. You will then write descriptions of these living things by describing similarities and differences on a 3X5 card. Your group will then combine your observations on one card. These cards will be saved for the next activity. Your teacher will direct you in this activity. You will work in small student teams and move to various tables with a variety of specimens. Use descriptive words such as size, color, and shape in describing your organism.



Ch. 1 Student Investigation # 1.1 2-3 periods/days

Your Powers of Observation *Teacher Version*

Note: This activity is a simplified version of the one in the text. You may choose to extend this activity as outlined in the text.

Objective: To begin to understand the relationships among organisms by describing and listing characteristics of representative samples.

Materials: A pair of working eyes, pencil, 3 X 5 index cards, samples of a wide variety of living organisms (including numerous examples from magazine clippings, computer print outs, etc.).

Introduction

Begin with this question: How can you begin to understand the complex interrelationships among living things? One place to start is to begin to describe differences and similarities.

Teacher Note: The examples and specimens used in this study can be as diverse as time and imagination permit. On one end of the spectrum, simple magazine clippings and computer printouts can be used leading up to various specimens from scientific or personal collections.

Directions: Collect representative examples of various living things. Try to include a variety of plants and animals. Place four similar specimens each (label 1-4) of a similar species in individual groups (label A, B, C, etc.) about the classroom. Divide students into small teams of 2-4 students each.

Activity Level I (Day 1)

Direct the students to the various locations within the classroom. Instruct them to individually record specific similarities and differences among the four specimens. Using the descriptions of similarities, have them individually write a description of each group. Note: It is acceptable to use drawings as part of their descriptions. Have students combine their descriptions into one group description so that each student group submits one description for each group of specimens (A, B, C, etc.) on a 3 X 5 index card... After 5-10 minutes have students move to the next table and group of specimens to begin the process again. Do this as time per period permits (generally not more than 4 stations).

*** Activity Level II (Day 2) (For this lesson plan)**

Review the descriptions from the first day and introduce some examples of good descriptive terms from student work on the first day/session. Direct the students to repeat their

observations and recordings. Include some new specimens if possible. Create new groupings of students.

Activity Level III (Day 3)

Rearrange the classroom so that the specimens are now mixed up. Mix the student-generated descriptions contained on the 3X5 cards among the specimens. Direct yet another new group of students to a specific starting place and have students match descriptions to specimens.

Note: As a follow up, post descriptions and specimen examples on the wall. You may want to have students name their specimens with new names of their creation. (Be careful for hidden meanings, etc.)

CBL BIOLOGY: LIFE SCIENCE OPTION
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Biology An Ecological Approach
Lesson Plan Quarter 1, Week 1, Day 5



Outcomes for Today

Standards Focus: 1fgh 6def

PREPARE

1. Background knowledge necessary for today's reading.

Descriptive words create "mental pictures."

Life on earth is very diverse.

Living things are different and similar in many ways to their characteristic qualities and traits.

2. Vocabulary Word Wall.

Introduce 4 important, useful words from today's reading.

arachnid

web

visible

create

- show, say, explain, expand, explode or buzz about the word briefly
- show, say and define the word quickly and add to the word wall

READ

3. Review the vocabulary and concepts previously covered in this chapter.

Start at the beginning and review the concepts covered so far

- mention the setting and main ideas
- point to concept chart as you quickly review it

Events that affect one living thing can affect others.

Life is connected.

Ecology and biology are sciences of life.

4. Read directions for investigation/activity 1.1 (attached to this lesson plan p. 4)

Note: This is Activity Level III (*There are three levels in this investigation.*) of the investigation as outlined in the Teacher Version attached to this lesson plan. If you have not done Level I or II, this should be done now.

5. Read text.

- Shared Reading RRP: Read, React, Predict every 2-3 pages
 Tape Partner Choral Silent Round Robin Reading

setting	Characters	pages
Your classroom	The various specimens selected for level II of this activity.	5 (of this lesson plan)

RESPOND

6. Fix the facts. Clarify what's important.

Discuss the reading and add 3-5 concepts ideas chart

- discuss the investigation to *fix the facts*: who, what, when, where, why
- decide on the 3-5 most important ideas or concepts and add these to the chart

Students might mention:

Humans always have an impact on their world.
 There are more living things than I realized.
 Life is complex.

7. Post information on the billboard. Add new information to ongoing class projects on the wall.

- new character or concept and information can be added to an Open Mind Portrait
- an answer can be added to a question from the KWL Chart
- a new or change can be added to the map

EXPLORE

8. Explore today's investigation with inquiry activities.

One possible activity:

Read Investigation 1.1 (Teacher Version Level II will be done for this lesson.) attached to the lesson plan. (Page 23)

As a culminating activity to these observations and descriptions, have students create their own organism using any combination of characteristics from a variety of specimens they have observed. Review the term adaptation and have students explain the adaptations possessed by their creature. All that is needed is simple construction paper and drawing pens. Instruct the students to be creative with their creations. "Created organisms" can be posted, grouped, and discussed. This could be a good extended activity to produce "works of art" to be displayed.

Other possible activities for a class group or individual

- Bookmark Open Mind Portrait g6 Graphic Organizer
 g7 Main Idea Graphic Organizer c1-12 Cubing Postcard Prop
 Poster Ad Map Retelling Reader's Theatre Cartoon Rap

9. Explore today's simulation with inquiry activities.

10. Collect data and post.

Created student organisms/creatures will be posted.

Bridge to a language building activity

Teach a Mini Lesson using *Write AHEAD* page# 766

The Write Ahead Activities are on individual work-pages in a separate file]

Student Activity

Observe the illustrations on page 766. Appendix Four

Ask students to explain what they know (prior information) about the various animals.

Ask them why they know about the Arachnids? (spiders, ticks, mites, scorpions, etc.)

Key Questions

How have your powers of observation changed since the last time you did this activity?

In describing individual people, are we more likely to use descriptive words or opinions? Why is this so?

What ideas did you take into consideration in the construction of your “creature”?

Remember to ask literal structural idea craft author literature life evaluate and inference questions every day.

Key Paragraph

Like other animals, humans are part of the web of life. We are reminded of that whenever our actions have visible effects on our surroundings.

EXTEND

11. Prompt every student to write a short product tied to today’s reading.

Instruct students to draw a picture of how they fit into “their web of life.” Ask them to write a paragraph from the perspective of one of the organisms in their drawing on how the human has impacted their world. For example, there is a chicken who lays eggs which end up in a breakfast burrito at McDonalds.

12. Close with a short summary.

Extend the reading to the students' lives or to the world.



Ch. 1 Student Investigation # 1.1 Part I

Your Powers of Observation

Objective: To begin to understand the **relationships** among organisms by describing and listing characteristics of **representative** samples.

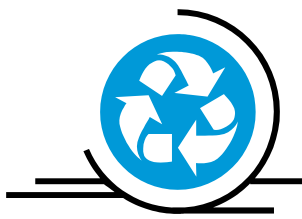
Introduction

How can we begin to understand the **complex** interrelationships among living things?

One place to start is to begin to describe **differences** and **similarities**. Look around the room. How are you different from the other humans here? In what ways are you similar? These must be observable characteristics. One place to begin this process of observing is to identify characteristics of each living thing.

Procedure

You will be looking at examples of living things. You will then write descriptions of these living things by describing similarities and differences on a 3X5 card. Your group will then combine your observations on one card. These cards will be saved for the next activity. Your teacher will direct you in this activity. You will work in small student teams and move to various tables with a variety of specimens. Use descriptive words such as size, color, and shape in describing your organism.



Ch. 1 Student Investigation # 1.1 2-3 periods/days

Your Powers of Observation *Teacher Version*

Note: This activity is a simplified version of the one in the text. You may choose to extend this activity as outlined in the text.

Objective: To begin to understand the relationships among organisms by describing and listing characteristics of representative samples.

Materials: A pair of working eyes, pencil, 3 X 5 index cards, samples of a wide variety of living organisms (including numerous examples from magazine clippings, computer print outs, etc.).

Introduction

Begin with this question: How can you begin to understand the complex interrelationships among living things? One place to start is to begin to describe differences and similarities.

Teacher Note: The examples and specimens used in this study can be as diverse as time and imagination permit. On one end of the spectrum, simple magazine clippings and computer printouts can be used leading up to various specimens from scientific or personal collections.

Directions: Collect representative examples of various living things. Try to include a variety of plants and animals. Place four similar specimens each (label 1-4) of a similar species in individual groups (label A, B, C, etc.) about the classroom. Divide students into small teams of 2-4 students each.

Activity Level I (Day 1)

Direct the students to the various locations within the classroom. Instruct them to individually record specific similarities and differences among the four specimens. Using the descriptions of similarities have them individually write a description of each group. Note: It is acceptable to use drawings as part of their descriptions. Have students combine their descriptions into one group description so that each student group submits one description for each group of specimens (A, B, C, etc.) on a 3 X 5 index card... After 5-10 minutes have students move to the next table and group of specimens to begin the process again. Do this as time per period permits (generally not more than 4 stations).

Activity Level II (Day 2)

Review the descriptions from the first day and introduce some examples of good descriptive terms from student work on the first day/session. Direct the students to repeat their observations and recordings. Include some new specimens if possible. Create new groupings of students.

*** Activity Level III (Day 3) (For this lesson plan)**

Rearrange the classroom so that the specimens are now mixed up. Mix the student-generated descriptions contained on the 3X5 cards among the specimens. Direct yet another new group of students to a specific starting place and have students match descriptions to specimens.

Note: As a follow up, post descriptions and specimen examples on the wall. You may want to have students name their specimens with new names of their creation. (Be careful for hidden meanings, etc.)