

SECTION | MULTICELLULAR ORGANISMS MEET THEIR NEEDS IN DIFFERENT WAYS.

**2.1** Reading Study Guide

**BIG IDEA** Multicellular organisms live in and get energy from a variety of environments.

**KEY CONCEPT** Multicellular organisms meet their needs in different ways.

**Review**

All organisms are organized, grow, respond, and reproduce.

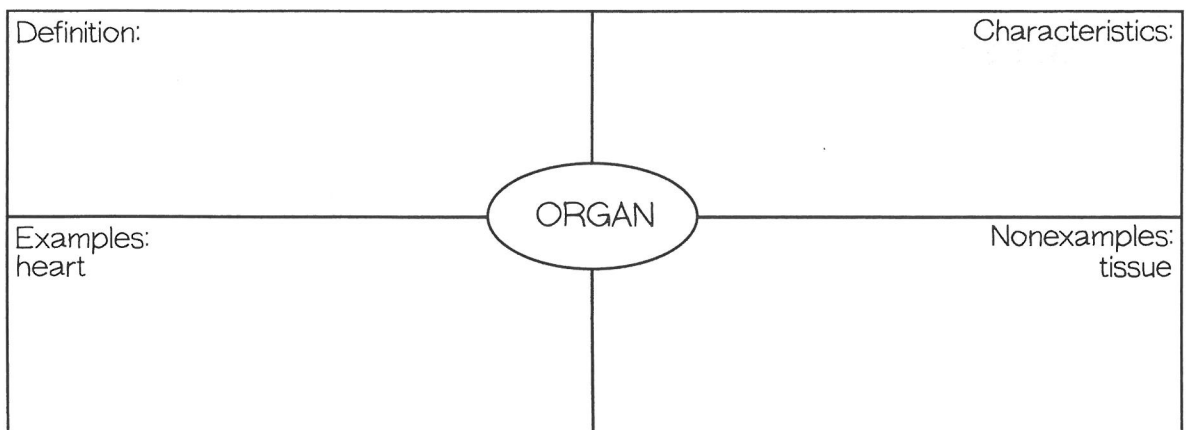
**Take Notes****I. Multicellular organisms have cells that are specialized. (p. 43)**

1. Fill in the main idea and detail notes about multicellular organisms.

MAIN IDEAS	DETAIL NOTES
1. Multicellular organisms have cells that are specialized.	A. Different jobs are done by different cells.  B.  C.
2. The plant, animal, and fungi kingdoms are made almost entirely of multicellular organisms.	A.

**A. Levels of Organization (p. 44)**

2. Fill in the four square diagram for *organ*.



**B. Organ Systems and the Organism (p. 45)**

3. Fill in the main idea and detail notes with details about organ systems.

MAIN IDEAS	DETAIL NOTES
1. In almost all multicellular organisms, different organ systems take care of different needs.	A. B. C.
2. Different organ systems work together.	A.

4. Does the picture at right show a type of tissue, one organ, or one organ system? Explain.

\_\_\_\_\_

\_\_\_\_\_



Human Heart

**II. Multicellular organisms are adapted to live in different environments. (p. 46)**

5. What types of adaptations can animals develop to aid them in survival?

\_\_\_\_\_

\_\_\_\_\_

**III. Sexual reproduction leads to diversity. (p. 48)**

6. What is sexual reproduction? \_\_\_\_\_

\_\_\_\_\_

7. Fill in the main idea and detail notes about sexual reproduction.

MAIN IDEAS	DETAIL NOTES
1. Sexual reproduction leads to diversity.	A. There are different possibilities in how offspring will grow and develop.
2. Two different cellular processes are involved in sexual reproduction.	A. meiosis— B. fertilization—

SECTION | PLANTS ARE PRODUCERS.

**2.2 Reading Study Guide A**

**BIG IDEA** Multicellular organisms live in and get energy from a variety of environments.

**KEY CONCEPT** Plants are producers.

**Vocabulary**

**photosynthesis** the process used by plants to convert the energy from sunlight into chemical energy

**autotroph** an organism that does not need an outside source of food

**cellular respiration** occurs when a cell breaks down sugars and releases energy

**stimulus** something that makes an organism respond

**Review**

1. Circle the word that completes the sentence correctly.

(Sexual/Asexual) reproduction leads to genetic diversity.

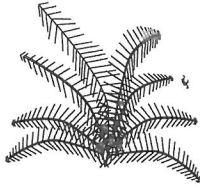
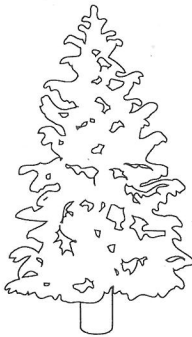
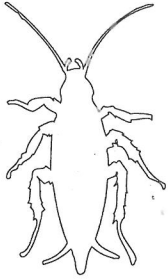
Organisms have (mutations/adaptations) that make them suited to their environment.

(Unicellular/Multicellular) organisms have organs and systems.

**Take Notes**

- I. **Plants capture energy from the Sun. (p. 51)**
2. Fill in the main idea and detail notes for the main idea shown.

MAIN IDEA	DETAIL NOTES
1. Plants capture energy from the Sun.	<p>A. The Sun provides the energy for almost all organisms to live.</p> <p>B. Energy from the Sun cannot drive _____ directly.</p> <p>C. Light energy must be changed into _____.</p> <p>D. Plants capture energy from the Sun and _____.</p>

**A. Producing Sugars and Storing and Releasing Energy (pp. 52-53)**3. Circle the *autotrophs*.**II. Plants are adapted to different environments. (p. 53)**

4. Fill in the main idea and detail notes with details about plant adaptations.

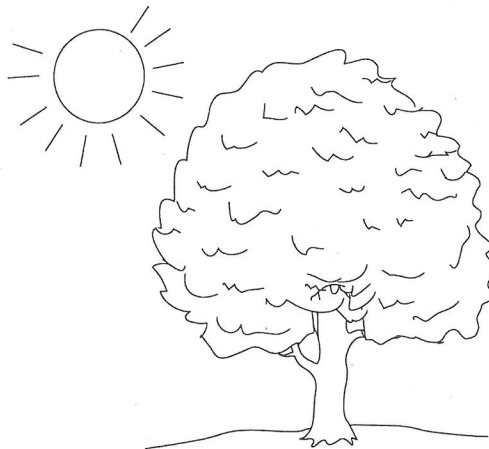
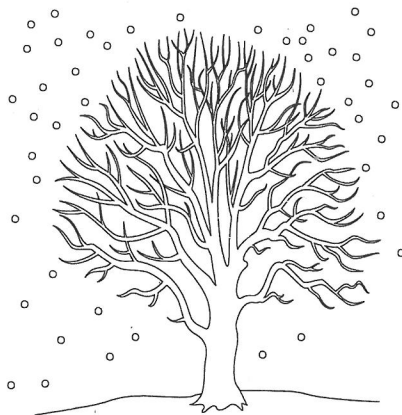
MAIN IDEAS	DETAIL NOTES
1. Some plants have reproductive adaptations.	A. The seeds of some plants sprout very quickly.
2. Some plants have adaptations that protect them.	A. Some plants give off odors or produce harmful _____.

**III. Plants respond to their environment. (p. 55)**

5. Give one example of a stimulus. \_\_\_\_\_

**A. Gravity, Touch, and Light (pp. 55-56)**6. How do plants respond to light? \_\_\_\_\_  
\_\_\_\_\_**IV. Plants respond to seasonal changes. (p. 57)**

7. Circle the tree that is getting less sunlight to use for photosynthesis.



## SECTION

ANIMALS ARE CONSUMERS.

**2.3 Reading Study Guide A**

**BIG IDEA** Multicellular organisms live in and get energy from a variety of environments.

**KEY CONCEPT** Animals are consumers.

**Vocabulary**

**consumer** an organism that needs to get energy from other organisms

**heterotroph** an organism that feeds on or consumes other organisms

**behavior** an observable response to a stimulus

**predator** an animal that hunts other animals for food

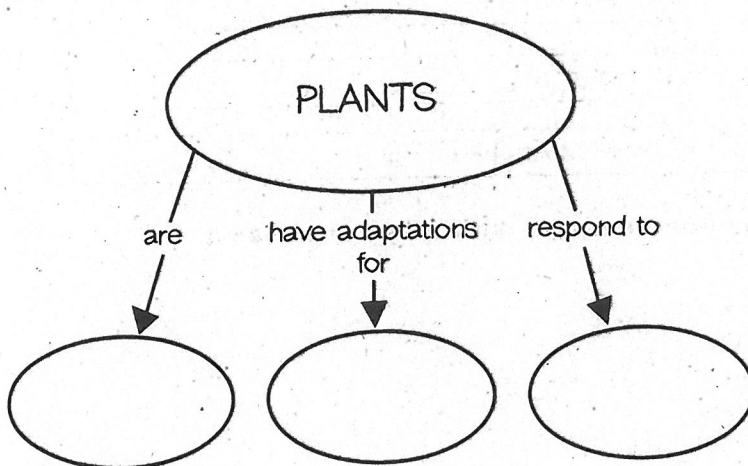
**prey** an animal that is hunted by another animal for food

**migration** movement to a different region in response to environmental changes

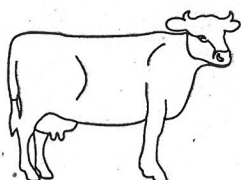
**hibernation** a sleeplike state that lasts for an extended time period

**Review**

1. Fill in the concept map for *plants*.

**Take Notes**

1. **Animals obtain energy and materials from food. (p. 58)**
2. Circle the heterotrophs below.



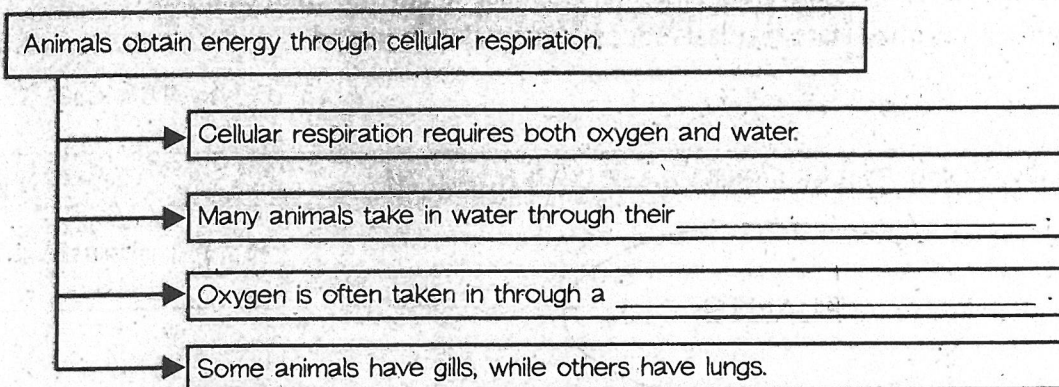
**A. What Animals Eat and Processing Food (pp. 59-60)**

3. Fill in the main idea and detail notes to describe the main idea shown.

MAIN IDEA	DETAIL NOTES
1. The type of food that an organism eats classifies it as one of three types.	A. herbivores—animals that feed on plants or algae B. carnivores— C. omnivores—

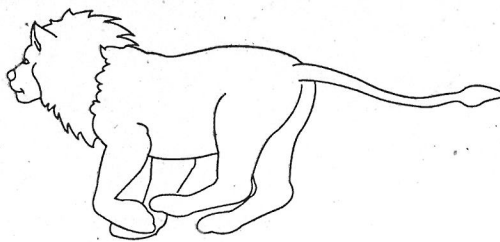
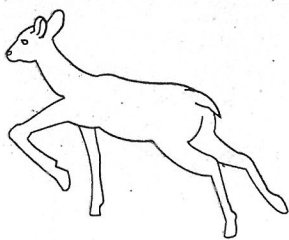
**B. Releasing and Storing Energy (p. 61)**

4. Fill in the supporting main ideas chart for the main idea shown.



**II. Animals interact with the environment and with other organisms. (p. 62)**

5. Circle the *prey* in the scene below.



**III. Animals respond to seasonal changes. (p. 64)**

6. Circle animals that migrate. Draw a square around animals that hibernate.



Frog



Monarch Butterfly

SECTION MOST FUNGI ARE DECOMPOSERS.

**2.4 Reading Study Guide A**

**BIG IDEA** Multicellular organisms live in and get energy from a variety of environments.

**KEY CONCEPT** Most fungi are decomposers.

**Vocabulary**

**hyphae** threadlike structures formed by the network of cells that make up fungi

**spore** a single reproductive cell that is able to grow into a new organism

**lichen** a network of fungi and algae that live together as one organism

**Review**

1. If the sentence is true, write "T." If the sentence is false, replace the underlined word to make the sentence true.

Animals get energy by producing other organisms. \_\_\_\_\_

Plants and animals interact with the environment. \_\_\_\_\_

Plants transform sunlight into nuclear energy. \_\_\_\_\_

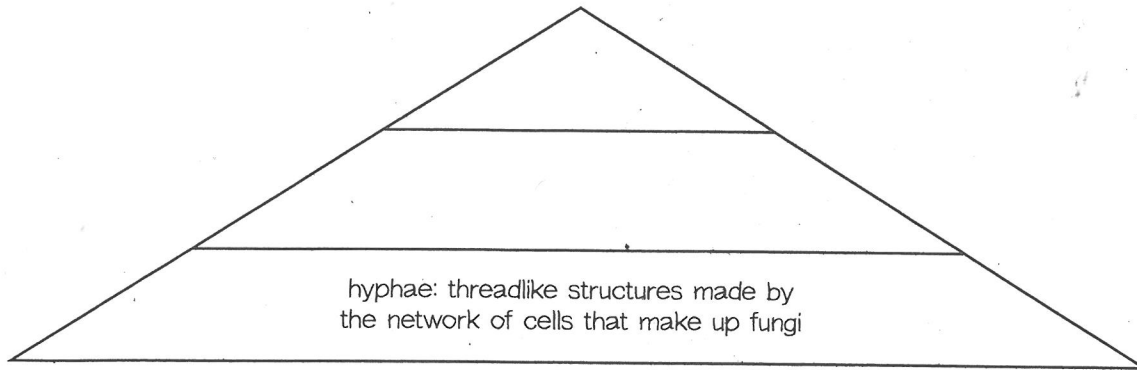
**Take Notes**

1. **Fungi absorb materials from the environment. (p. 66)**
2. Fill in the main idea and detail notes for the main idea shown.

MAIN IDEA	DETAIL NOTES
1. Fungi absorb materials from the environment.	A. Most fungi are decomposers. B. Fungi break down _____ _____ C. Fungi absorb nutrients and leave behind _____ D. Fungi are heterotrophs.

**A. Characteristics of Fungi and Reproduction (p. 67)**

3. Fill in the word triangle diagram for *hyphae*.

**II. Fungi include mushrooms, molds, and yeasts. (p. 68)**

4. The mushroom pizza shown below has been left in the refrigerator too long.

How was *yeast* used in the pizza?

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Where is the *mold* on the pizza?

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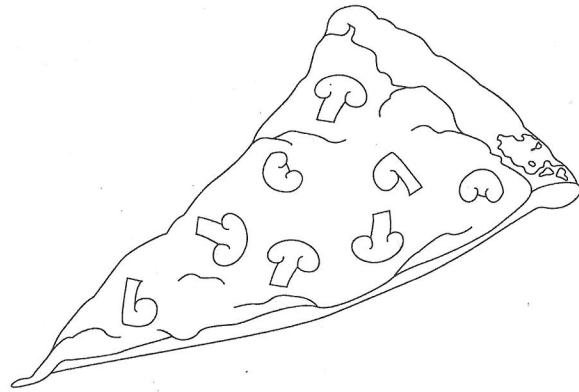
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How are *mushrooms* used on the pizza?

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**A. Mushrooms, Molds, and Yeasts (pp. 68–69)**

5. Fill in the main idea and detail notes with details about molds.

MAIN IDEAS	DETAIL NOTES
1. Not all food molds are bad.	A. Some cheeses are made using molds. B. Soy sauce is made using _____.
2. Many molds cause disease.	A. Fungal molds cause athlete's foot. B. Molds cause _____.
3. Some molds are used to treat diseases.	A. An antibiotic that comes from the <i>Penicillium</i> fungus is _____.

**III. Fungi can be helpful or harmful to other organisms. (p. 70)**

6. What is one example of how fungi can be harmful?

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