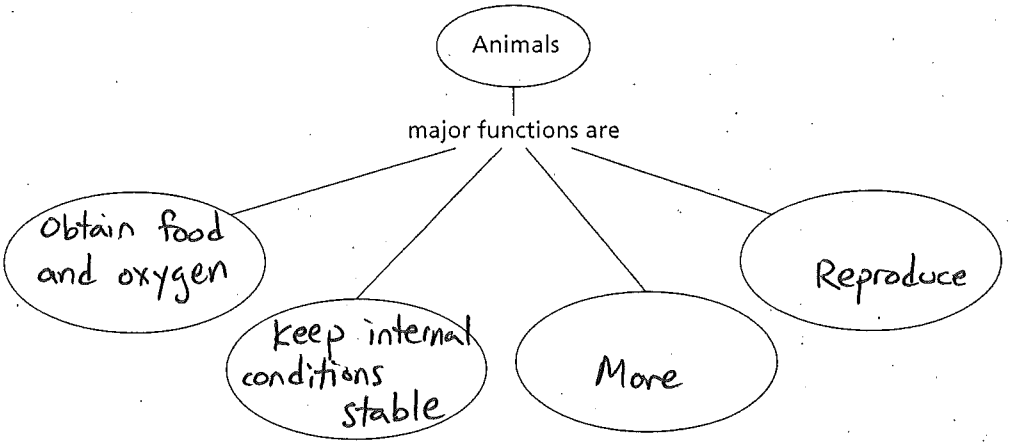
Name KEY Date _____ Class _____

What Is an Animal?

Understanding Main Ideas

Fill in the blank ovals to complete this concept map.

1–4.



Building Vocabulary

From the list below, choose the term that best completes each sentence.

cells	vertebrates
adaptations	asexual reproduction
phyla	fertilization
organ	invertebrate

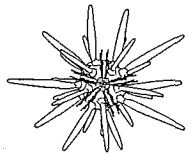
5. A group of several different tissues is called a(n) organ.
6. Biologists classify animals into major groups called phyla.
7. fertilization is the joining of an egg cell and a sperm cell.
8. vertebrates are animals that have a backbone.
9. cells are the basic units of structure and function in living things.
10. Structures or behaviors that allow animals to perform the basic functions in their environments are called adaptations.
11. An animal without a backbone is called a(n) invertebrate.
12. asexual reproduction is the process by which a single organism produces a new organism identical to itself.

Name _____ Date _____ Class _____

Animal Symmetry

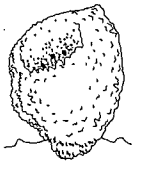
Understanding Main Ideas

Classify the following animals as having no symmetry, bilateral symmetry, or radial symmetry. If the animal has only one line of symmetry, draw the line. Write your responses on the lines below the animals.

1. 

Sea Urchin

Radial

2. 

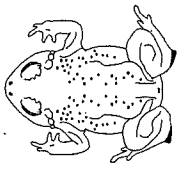
Sponge

No Symmetry

3. 

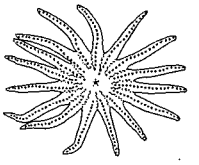
Beaver

Bilateral

4. 

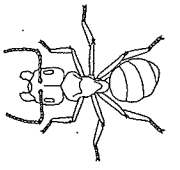
Frog

Bilateral

5. 

Sea Star

Radial

6. 

Ant

Bilateral

Building Vocabulary

From the list below, choose the term that best completes each sentence.

many	radial symmetry
bilateral symmetry	one

7. If an animal has a head end and a tail end, it has bilateral symmetry.
8. All animals with radial symmetry live in water.
9. Animals with radial symmetry have many line(s) of symmetry that go(es) through a central point.
10. Animals with bilateral symmetry have one line(s) of symmetry that divide(s) them into two parts.

Name _____ Date _____ Class _____

Sponges, Cnidarians, and Worms • *Review and Reinforce*

Sponges and Cnidarians

Understanding Main Ideas

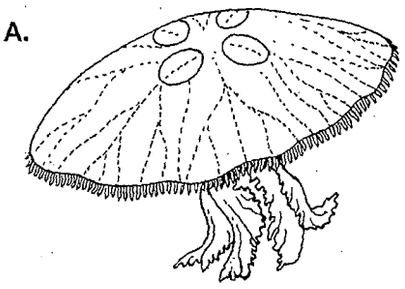
Answer the following questions on a separate sheet of paper.

1. What function does water perform for sponges? carry food & oxygen, takes away waste. Aids in reproduction
2. How does a sponge defend itself? spikes within its skeleton
3. Describe two methods of sponge reproduction. Asexual - budding
   Sexual - Egg & sperm released. Larva forms.
4. In the diagram, identify the two different body plans of cnidarians. Where is the mouth on each? Which animal probably swims?
   Mouth is between the tentacles for both.

Mouth opens down.

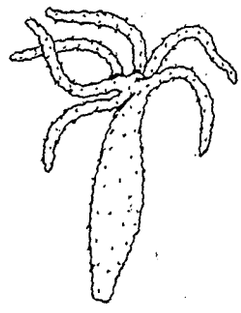
Swims

A.



Body Plan: Medusa

B.



Body Plan: Polyp

Mouth opens up.

5. How do cnidarians reproduce? Polyps can do budding (asexual). Or they reproduce sexually releasing egg & sperm cells into the water. Some go through both in their life cycle
6. Describe how a coral reef is formed.
   Coral polyp attachs to solid surface. It forms a hard skeleton around its soft body. More & more formed asexually & reef grows.

Building Vocabulary

Write an answer for each of the following questions in the spaces provided.

7. Explain what cnidarians are by describing how they feed and what kind of environments they live in. Give three examples.
   Use stinging cells to capture food. Tentacles bring food to its mouth. Most live in oceans. Some live in freshwater
   Examples: Jellyfish, corals, sea anemones, Portuguese Man o' War

8. What is a larva?
   Immature form of an animal that looks very different from the adult

Name _____ Date _____ Class _____

Sponges, Cnidarians, and Worms ▪ *Review and Reinforce*

Worms

Understanding Main Ideas

If the statement is true, write true. *If it is false, change the underlined word or words to make the statement true.*

F 1. Three major phyla of worms are flatworms, roundworms, and ~~tube worms~~. segmented worms.

F 2. Worms reproduce ~~only~~ through sexual reproduction. and asexual rep.

T 3. Worms are the simplest organism with a brain.

T 4. Planarians are nonparasitic flatworms.

F 5. Tapeworms are parasitic ~~segmented worms~~. flatworms

T 6. Planarians have one opening in their digestive system.

F 7. Roundworms have a ~~two-way~~ one-way digestive system.

T 8. Worms have bilateral symmetry.

T 9. Earthworms are segmented worms.

F 10. Earthworms have a(n) ~~open~~ closed circulatory system.

T 11. Earthworms must keep their skin moist.

Building Vocabulary

Match each term to its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

b 12. scavenger

e 13. anus

a 14. parasite

d 15. free-living organism

c 16. host

a. Organism that gets its food from living in or on another organism

b. Organism that feeds on dead or decaying material

c. Organism in or on which another organism lives and gets its food from

d. An organism that does not live in or on other organisms

e. Opening through which wastes exit in a one-way digestive system

Name _____ Date _____ Class _____

Mollusks

Understanding Main Ideas

Complete the table below with information about mollusks.

	Gastropods	Bivalves	Cephalopods
Common Example	Snail, Slug	Clam	Squid
How do they eat?	Radula, can be herbivores, scavengers or carnivores	Filter Feeders	carnivores capture w/ tentacles.
How do they move?	Creeping by oozing on mucus	Larvae float/swim Adults sessile or move slowly w/ foot	Jet Propulsion
Do they have a shell?	Single or None	2 shells	some - external some - internal some - none
Adaptations of their feet	Crawling	Digging	Catching Prey

Building Vocabulary

From the list below, choose the term that best completes each sentence.

omnivore	cephalopod	bivalve
radula	gills	gastropod

1. A row of tiny teeth found in gastropods and cephalopods is called a radula.
2. The most intelligent group of mollusks is the cephalopod group.
3. A(n) omnivore eats both plants and animals.
4. A bivalve is a two-shelled mollusk.
5. A snail is a gastropod.
6. Most water-dwelling mollusks have gills, organs that remove oxygen from water.

Name _____ Date _____ Class _____

Arthropods

Understanding Main Ideas

Read each description. Decide which animal group best fits each question. Write your answers on a separate sheet of paper.

1. They are invertebrates with an exoskeleton, segmented body, and jointed appendages. They have an open circulatory system and reproduce sexually. Their name comes from the Greek for "joint-leg." What are they? Arthropods
2. They have highly segmented bodies with one pair of legs attached to each segment. They are predators with venom. Some of them have more than 100 segments. What are they? Centipedes
3. They all have two body sections and eight legs. Some of them are predators with fangs or a stinger; others are parasites. None of them have antennae. What are they? Arachnids
4. They have segmented bodies with two pairs of legs on each segment. Most eat decaying leaves. They curl up into a ball when something disturbs them. What are they? Millipedes

Building Vocabulary

From the list below, choose the term that best completes each sentence. Use each term only once.

abdomen	exoskeleton	molting
antennae	metamorphosis	

5. An arthropod's exoskeleton protects it and keeps it from drying out.
6. The heads of some arthropods have antennae, which contain sense organs.
7. Some animals go through a process called metamorphosis during their life cycle in which their bodies undergo dramatic changes in form as they develop.
8. The hind body section of an arachnid is called its abdomen.
9. The process of shedding an outgrown exoskeleton is called molting.

Name _____ Date _____ Class _____

Insects

Understanding Main Ideas

Answer the following questions.

1. How many body sections does an insect have? 3
   Sketch an insect on a separate sheet of paper. Name and label the body parts on your sketch.
2. How many legs does an insect have? 6 Show them on your sketch.
3. List two other features that most insects have. Show them on your sketch, and label them.
   Antennae, Wings
4. Name two ways that insect mouthparts are used for feeding.
   sponge-like mouthparts for lapping
   coiled tube for sucking (nectar)
   Sharp edged for cutting/chewing

Building Vocabulary

From the list below, choose the term that best completes each sentence.

thorax	nymph	gradual metamorphosis
complete metamorphosis	pupa	

5. The wings and legs of an insect are attached to the thorax.
6. The four stages of complete metamorphosis in order are egg, larva, pupa, and adult.
7. In the pattern of development known as gradual metamorphosis, the young insect, called a nymph, looks much like a miniature adult.

Name _____ Date _____ Class _____

Echinoderms

Understanding Main Ideas

Write the letter of the correct answer on the line at the left.

C 1. Which of the following is *not* a characteristic of echinoderms?
   a. 5-part radial symmetry
   b. endoskeleton
   c. live in freshwater
   d. water vascular system

a 2. Which of the following is *not* an echinoderm?
   a. fiddler crab
   b. brittle star
   c. sea urchin
   d. sea cucumber

d 3. Which of the following is *not* a function of tube feet?
   a. move along ocean floor
   b. catch food
   c. grip surfaces
   d. digest food

C 4. The life cycle of an echinoderm includes all of the following *except*
   a. eggs
   b. metamorphosis
   c. asexual reproduction
   d. fertilization

Answer the following.

5. Describe how a sea star captures its food.
Grasps a clam with all 5 arms using its tube feet to grip. Pulls the clam open & forces its stomach out its mouth and digests the clam in the clam's shells. Then sucks in the partially digested clam.

Building Vocabulary

Fill in the blank to complete each statement.

6. The water vascular system consists of fluid-filled tubes within the echinoderm's body.
7. An echinoderm has a(n) endoskeleton that supports its body.
8. Animals in the Echinodermata phylum are radially symmetrical invertebrates that live on the ocean floor.