

Demonstrate how animals are sorted into groups & how vertebrates are sorted into groups.

CONTEXT CLUES:

For years most scientists thought of sponges as plants, but now they know differently. There are exceptions to every rule, and sponges are that weird exception.

Exceptions means: A) rules B) groups C) exclusions

DICTIONARY SKILLS: stingers/tentacles/photosynthesis/filtering

(1) Cnidarians are a group of invertebrates that include jellyfish, sea anemones, and coral. All Cnidarians live in the water and most have stingers at the end of long tentacles. This particular type of animal is a very simple one, but it is still an animal. Cnidarians have no backbone, they consume other organisms for energy, they breathe oxygen, and they have organs.

*Describe the Cnidarians. _____

(2) Sea cucumbers and starfish are echinoderms. These animals have no backbone, but do have spiny skin. Echinoderm comes from the Greek language and means "spiny skin." Again, all echinoderms share common characteristics: no backbone and spiny skin.

*What do sea cucumbers, jellyfish, starfish, coral, and sea anemones have in common?

(3) The simplest of all invertebrates is the sponge. Sponges live in the water, but have no organs. If animals have organs, then why are sponges considered animals? Why aren't sponges considered plants? Well, they aren't plants because they cannot make their own food. ALL plants make their own food using photosynthesis. Sponges consume other organisms by filtering the water through themselves. For years most scientists thought of sponges as plants, but now they know differently. There are exceptions to every rule, and sponges are that weird exception.

*Why are sponges considered animals? _____

(4) Invertebrates are animals without a backbone. Invertebrates are divided into six categories of animals that look and act very differently, but they all have that one thing in common: they lack a backbone. Over 95% of all animals on Earth fit into one of these groups: Arthropods, Cnidarians, Mollusks, Worms, Echinoderms, or Sponges.

*What do all invertebrates have in common? _____

PARTS OF SPEECH: Conjunctions and Prepositions are joining words. The most common conjunctions are **and, but, or,** and sometimes **for, nor, yet,** and **so.** A preposition links a noun or pronoun and shows its relationship to some other word in the sentence. The most common prepositions are: **at, by, for, from, to, in, before, after, over, of, on, under, until, with, since,** etc. Underline the prepositions in the sentences and circle the conjunctions.

1. Sponges live in the water but have no organs. (1p) (1c)
2. There are exceptions to every rule and sponges are that weird exception. (1p) (1c)
3. Over 95% of all animals on Earth fit into one of these groups: Arthropods, Cnidarians, Mollusks, Worms, Echinoderms, or Sponges. (5p) (1c)

PARTS OF SPEECH: Adverbs - Circle the number of the sentence that contains an adverb.

1. Invertebrates are animals without a backbone.
2. The simplest of all invertebrates is the sponge.
3. For years most scientists thought of sponges as plants, but now they know differently.
4. Sponges consume other organisms.

SENTENCE SKILLS PRACTICE: Kinds of sentences

A declarative sentence makes a statement. An interrogative sentence asks a question. An imperative sentence gives a command. Put the correct punctuation at the end of the sentence and identify the kind of sentence.

1. The simplest of all invertebrates is the sponge ____ _____
2. Invertebrates are animals without a backbone ____ _____
3. What do all invertebrates have in common ____ _____
4. Make your own food ____ _____

S5L1.a Demonstrate how animals are sorted into groups & how vertebrates are sorted into groups.

Invertebrates

Arthropods

Jointed parts and an exoskeleton

- spiders
- lobsters
- crabs

Worms

Elongated, soft body

- earthworms
- flatworms
- fire worms

Echinoderms

Spiny skin

- starfish
- sea urchins
- feather stars

Mollusks

Soft bodies & shells

- snails
- clams
- sea slugs

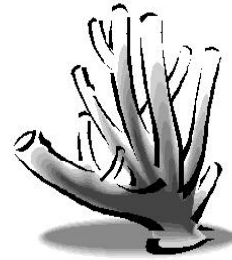
Cnidarians

Simple life form, mouth, stinger

- jellyfish
- sea anemones
- coral

Sponges

Almost plant-like, no tissue or organs



Vertebrates

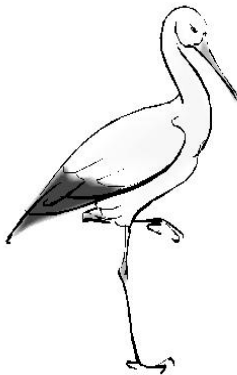
Fish

Cold blooded

Gills

Scales

Lay eggs in water



Amphibians

Cold blooded

Live near water

Smooth, moist skin

Lay eggs in water

- frogs
- toads

Reptiles

Cold blooded

Dry skin

Lay eggs on land

- snakes
- turtles
- alligators

Birds

Warm blooded

Feathers & wings

Beaks

Mammals

Warm blooded

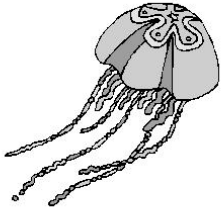
Large brain

Live birth

Milk from mother

Hair or fur

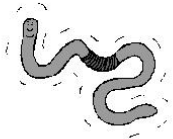
Match each Invertebrate with the category it belongs in.



Worms



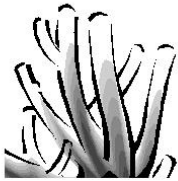
Arthropods



Mollusks



Cnidarians



Sponges



Echinoderms

