High School Science Virtual Learning

College Biology
Chapter 17 Recap Part 1

May 18, 2020

High School College Biology
Lesson: May 18, 2020

Objective/Learning Target:

Students will be able to discuss the Origins of Animal Diversity and identify the key characteristics that distinguish Sponges, Cnidarians, Molluscs, Flatworms, Annelids, Roundworms, and Arthropods.

Let’s Get Started:

1. What domain to animals belong to?

2. What mode of nutrition distinguishes animals from fungi, both of which are heterotrophs?

Answers:

1. Eukarya

2. Ingestion (eating)

Lesson Activity:

1. Read over pages 1-21 of the Chapter 17 Notes. (Linked Here)

2. Watch this Crash Course video on Sponges.
   Watch this Crash Course video on Annelids and Arthropods.

Practice:

1. What are some characteristics that all animals share with one another?

2. The Cambrian period from 525 to 535 million years ago is referred to as the Cambrian Explosion. Why?

3. What are invertebrates? What percentage of the animal kingdom do they represent? How is this number possible?

Practice Answers:

1. All animals are eukaryotic, multicellular, heterotrophic organisms that obtain their nutrients by eating and are capable digesting their food in their bodies.
2. During this time they are so many new body plans and phyla that show up in the fossil record. A great deal more than most time periods in history.
3. Invertebrates are organisms without a backbone. They make up a staggering 95% of the animal kingdom. Most invertebrates are found in the ocean and since the ocean covers 3/4 of the planet, that is how it is possible.

More Practice:

1. Classify these molluscs: A garden snail is an example of a _____; a clam is an example of a _____; a squid is an example of a _____.
2. Identify which of the following categories includes all others in the list:
   arthropod,arachnid, insect, butterfly, crustacean, millipede
3. The body plan of an annelid displays _____, meaning that the body is divided into a series of repeated regions.

More Practice:

4. In what fundamental way does the structure of a sponge differ from that of all other animals?

5. In what fundamental way does the body plan of a cnidarian differ from that of other animals?

More Practice Answers:

1. gastropod; bivalve; cephalopod
2. Arthropod
3. Segmentations
4. A sponge has no tissues
5. The body of a cnidarian is radially symmetric

Review Tools:

-Kahoot 1

-Kahoot 2

-Bozeman Science Video about animals