

Invertebrate Classification

Purpose:

This lesson serves to introduce students to the animal kingdom. Students will outline the characteristics of the animal kingdom, distinguish between invertebrates and vertebrates, and identify specimens belonging to major invertebrate animal phyla and classes.

VA SOLs:

BIO. 4. The student will investigate and understand relationships between cell structure and function. Key concepts include the following:
b. Exploring the diversity and variation of eukaryotes

BIO. 5. The student will investigate and understand life functions of archaebacteria, monerans (eubacteria), protists, fungi, plants, and animals (including humans). Key concepts include the following:
a. How their structures and functions vary between and within the kingdoms
c. Analyses of their responses to the environment

BIO. 7. The student will investigate and understand bases for modern classification systems. Key concepts include the following:
a. Structural similarities in organisms
b. Systems of classification that are adaptable to new scientific discoveries

Materials and Resources:

PowerPoint, notes outline

Animal specimens, lab sheet

“Life Science: Invertebrates” video, from www.unitedstreaming.com

Classroom Management and Safety Issues:

There are no specific classroom management and safety issues for this lesson.

Procedures:

Engage (5 minutes)

1. The teacher and students will discuss the recent discovery of the “furry lobster.” This serves to peak student interest in the animal kingdom as well as illustrate that classification systems are continuously updated.

Explore (90 minutes)

2. Students will classify various specimens using invertebrate dichotomous keys, identifying major animal phyla and classes. Students will complete the corresponding lab activity sheets.

Explain (45 minutes)

3. Students will complete an outline that corresponds to a PowerPoint, which covers animal kingdom characteristics as well as major animal phyla and classes.

Elaborate (45 minutes)

4. Students will watch the United Streaming video titled “Life Science: Invertebrates.” Students will then play a bonus game in which they can earn points for each correct phylum and class identification for 40 different animals.

Evaluate

5. The specimen lab sheets will be collected and checked for accuracy and completion.