

Activity Four

Invertebrate Critter Cards

Episode Title: “Life on the Move” (Cnidarians), “Explosion of Life” (Annelids), “The Conquerors” (Arthropods), “Survival Game” (Molluscs), “Ultimate Animal” (Echinoderms)

Activity Subject: Body plans and parts, diversity

Grade Level: 3-12

National Science Education Standards:

Standards are noted as (standard:benchmarks).

Grades 3-5

Life Sciences (7:2)

Grades 6-8

Life Sciences (4:5), (5:5), (7:1,4,5)

Grades 9-12

Life Sciences (7:7)

Learning Objectives: Students explore how animals are classified and the characteristics and common representatives of five major invertebrate phyla: cnidarians, annelids, arthropods, molluscs, and echinoderms.

Assessment: Students sort animal cards (provided) into the groups (phyla) to which they belong, and explain the critical characteristics that qualify each animal for its group. See “Procedure” # 6 and # 7 below for additional assessment options.

Time: Minimum six class periods to view the five episodes and complete the activity

Group Size: Entire class views videos and contributes to discussion; individual students or pairs or small teams of students conduct activity.

Materials and Preparation

Duplicate the accompanying “Invertebrate Critter Card” page for individual students, or for pairs or groups of students. Provide scissors for the students to cut apart the invertebrate cards.

Procedure

- 1) View the five episodes covered in this activity with your students.
- 2) At the completion of each episode, review with students how animals are classified and the characteristics that determine the phylum featured. Refer to “Introduction to Episodes and Phyla,” paying particular attention to the body plan features outlined.
- 3) Determine the group size for the activity that will work best for your class.

4) Have students cut apart the cards and phylum headers provided, then turn the cards face down and shuffle them.

5) Have students draw one card at a time and place it below the correct phylum header. Students in pairs alternate turns, drawing and placing cards; students in groups rotate turns.

6) Have students fill in the following sentence about each card (request verbal or written responses):

This _____ is
a(n) _____ because it has

_____.

or

This (critter name) is a(n) (phylum) name because it has (these characteristics.) (**Example:** This earthworm is an annelid because it has segmentation and a flow-through gut.)

7) When completed, collect all cards and if additional review or assessment is desired, hold up one picture card at a time from among those provided, covering the name of the animal with your fingers. Ask students to name: the animal, the group, the characteristics of that group, and other animals in the same group. Request verbal or written responses.

See following page for Invertebrate Critter Cards.

Answer Key:

Cnidarians-jellyfish, coral, sea anemone, hydra, siphonophore

Annelids-earthworm, worm, tubeworm, leech

Molluscs-slug, squid, octopus, clam, chiton, snail

Echinoderms-sea cucumber, sea urchin, sea star, sand dollar, brittle star

Arthropods-spider, butterfly, millipede, pillbug, crab

CNIDARIANS
Phylum Cnidaria

ANNELIDS
Phylum Annelida

MOLLUSCS
Phylum Mollusca

ECHINODERMS
Phylum Echinodermata

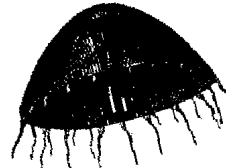
ARTHROPODS
Phylum Arthropoda



sea cucumber



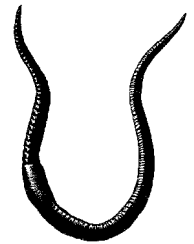
spider



jellyfish



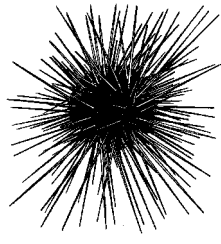
slug



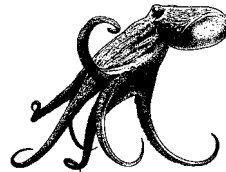
earthworm



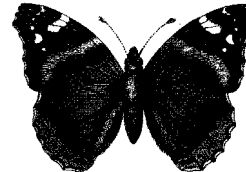
squid



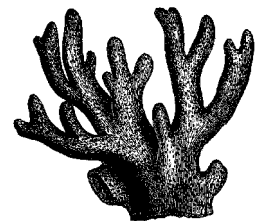
sea urchin



octopus



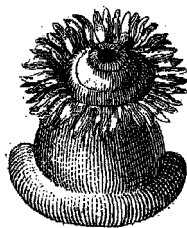
butterfly



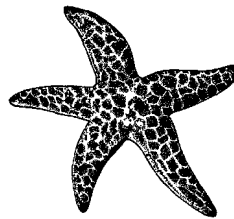
coral



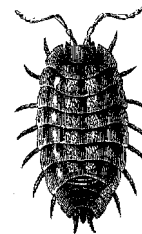
millipede



sea anemone



sea star



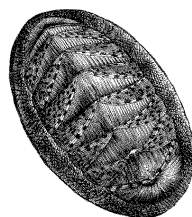
pillbug



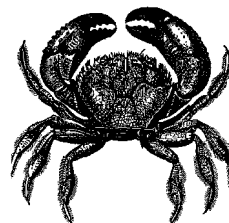
clam



worm



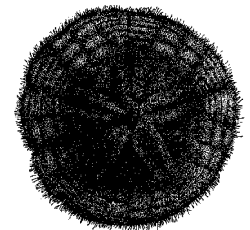
chiton



crab



snail



sand dollar



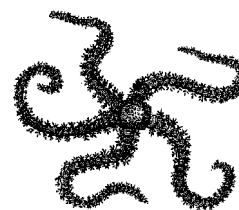
hydra



siphonophore



tube worm



brittle star



leech