



World's Most Awesome Invertebrate

Video Title: This lesson is not connected to a specific video title. Students will be searching shapeoflife.org for video in the Phyla category: *Sponges; Cnidarians; Flatworms; Annelids, Marine Arthropods; Terrestrial Arthropods; Molluscs; Echinoderms;* and *Chordates* to support their evidence.

Activity Subject: Invertebrate biodiversity

Grade Level: 7 – 12 grades

Introduction

After note taking during the phyla episodes of the shapeoflife.org, student pairs will randomly pick an invertebrate from the hat. After doing more in-depth research on their chosen invertebrate, student pairs will design and create a flyer that will promote the invertebrate's special abilities. Furthermore, the students will find at least one video clip of their invertebrate from the shapeoflife.org website to present to the class as evidence of their claims. Finally the student pair will argue why their invertebrate should be crowned the "World's Most Awesome Invertebrate."

Assessments

Research, creation of digital flyers, choosing a video clip, and arguing for their invertebrate.

Time

Two classes for research and flyer design (could include homework).

Two classes for the presentation and defense of the flyers (assuming 50 minute classes and a class size of 32 students).

Group Size

Pairs of students

COMMON CORE STATE STANDARDS: LITERACY IN SCIENCE

CCSS.ELA-Literacy.RST.6-8.1 - Cite specific textual evidence to support analysis of science and technical texts.

NEXT GENERATION SCIENCE STANDARDS PERFORMANCE EXPECTATIONS:

Students who demonstrate understanding can:
MS-LS4-2 - Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

Disciplinary Core Idea:

MS-LS1.A - Structure and Function: In multicellular organisms, the body is a system of multiple interacting subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions.

Learning Objectives:

Students will appreciate the biodiversity of invertebrates and their special adaptations. They will also consider the differences and similarities among invertebrates.



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Materials, Preparation and Procedure

Materials and Preparation:

- Video in the Phyla category: *Sponges; Cnidarians; Flatworms; Annelids, Marine Arthropods; Terrestrial Arthropods; Molluscs; Echinoderms; and Chordates*
- Access to the internet
- Memory stick or other method to save work
- Printer to print out flyers
- Display space for flyers (called Invertebrate Gallery)
- Prizes for the winners

Procedure:

1. Prior to this assignment students will have taken notes in their science notebooks on invertebrate organisms while watching some or all of the Phyla videos. (Alternatively, students can first be assigned an invertebrate and then, in pairs, can view the video shorts independently, targeting their organism.)
2. From a container filled with invertebrate names, pairs of students randomly choose their focus invertebrate.
3. The student pairs then do further research on their invertebrates, documenting their sources and following the guidelines on the Invertebrate Research Worksheet.
4. Next the pairs search for video clips that capture their invertebrate's special ability. Students can search the Shapeoflife.org website or other sites as needed.
5. Student pairs design a digital flyer (8 ½" x 11") that promotes their invertebrate for the title of "World's Most Awesome Invertebrate."
6. Each pair of students will be given up to six minutes to present their flyer to the class, showing the class their video clips and arguing the case for their invertebrate to be crowned the winner.
7. All flyers are displayed in the "Invertebrate Gallery."
8. Winners are chosen either by the teacher or by class vote.
9. The winning invertebrate could be announced over the PA system, published on the school website or written up in the school newspaper.



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Invertebrate Candidates

Teachers cut these candidates out and put in container or hat for students to choose an invertebrate.

Dragonfly

Millipede

Lobster

Squid

Nautilus

Crab

Abalone

Octopus

Sea Star

Sea Urchin

Jellyfish

Leech

Marine Annelid

Earthworm

Sponge

Sea Anemone

Flatworm

Tunicate

Sea Cucumber

Coral



World's Most Awesome Invertebrate - Student Edition

Invertebrate Research Worksheet

Student Name: _____ Student Name: _____ Date: _____

1. Name of your invertebrate:
2. Phylum of your invertebrate:
3. Where does your invertebrate live?
4. How does your invertebrate move?
5. What other organisms, live or extinct, have the some of the same characteristics as your organism?
6. Why might very different organisms share some of the same characteristics?

Name 3 to 5 special characteristics of your invertebrate:

- 1.
- 2.
- 3.
- 4.
- 5.

Why would you promote your invertebrate as the "World's Most Awesome Invertebrate"?

Write your 3 references for this research:

- 1.
- 2.
- 3.



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Flyer and Video Directions

Flyer Directions:

Have a fun time designing your original invertebrate flyers. When printed, flyers should be 8½" x 11" (standard paper size).

Be sure to include the following on your flyer:

- Title of "World's Most Awesome Invertebrate"
- Name of your invertebrate
- Picture(s) of your invertebrate
- Phylum of your invertebrate
- One or more special characteristics
- Bullets instead of sentences
- At least three colors

Your flyer should be:

- Neat and organized
- Edited (free of spelling and grammatical errors)
- Original
- Scientifically accurate

Video Directions:

Find one or two video clips that support your claim that your invertebrate is the world's most awesome invertebrate. Clips should not exceed two minutes.