



# SHAPE OF LIFE: MARINE ARTHROPODS

- In addition to ruling the ancient seas, arthropods were the first creatures to move onto land.
- What is the secret to an arthropod's success? What is one advantage of having this adaptation?

**Arthropods have jointed legs, which provides them with greater stability, shock absorption, and flexibility.**

- What structures do arthropods have to sense their environment?

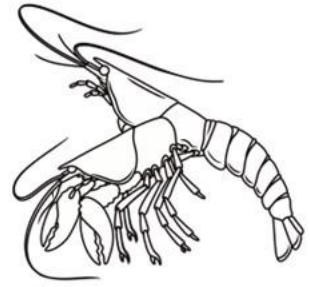
**Arthropods have complex eyes that can see sharp images. They also have antennae.**

- True or false: there are more arthropods in the world's oceans than any other group of animals.

**True**

- What type of skeleton do arthropods have? Describe it.

**Arthropods have an exoskeleton. It is a hard, outer shell that provides protection and support to the internal organs.**



- When must an arthropod leave its exoskeleton behind?

**When the arthropod grows, they must molt their smaller exoskeleton.**

- Does the new exoskeleton develop on the outside or on the inside of the old exoskeleton?

**The new exoskeleton develops on the inside.**

- Which parts of the crab molt?

**The crab develops an entirely new covering, including eyes, legs, and the body!**

- How long does it take the new exoskeleton to harden? 2 days

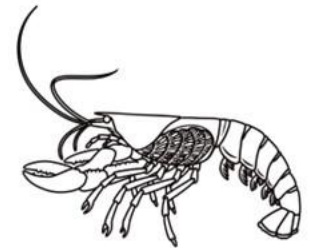
- What structure do arthropods have to breathe? gills (marine arthropods do)

- What is an extreme environment that an arthropod can survive?

**Some arthropods can survive at the bottom of the ocean near hydrothermal vents.**

- Why do horseshoe crabs come on land?

**Horseshoe crabs come on land to lay their eggs on the beach beneath the sand.**

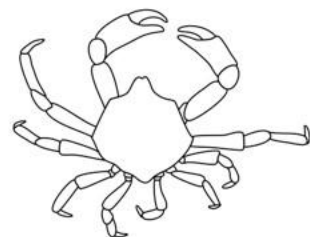


- What adaptations do arthropods who left the sea have?

**Arthropods who have left the oceans have appendages and adaptations for tasting, sensing, grasping, and flight.**

- What are three examples of arthropods that you saw throughout the video?

**A few examples include krill, lobsters, crabs, horseshoe crabs, and sand crabs.**



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### Myth or Fact Challenge

## Phylum Arthropoda

ARTHROPODA MYTH OR FACT #1  
• A tick is an insect. **Myth**

ARTHROPODA MYTH OR FACT #2  
• The animal that kills more humans than any other animal is an arthropod. **Fact**

ARTHROPODA MYTH OR FACT #3  
• Arthropods have an exoskeleton that grows with them as they get larger. **Myth**

ARTHROPODA MYTH OR FACT #4  
• Insects see thousands of identical images with their compound eyes. **Myth**

ARTHROPODA MYTH OR FACT #5  
• 25% of spiders are venomous. **Fact**

ARTHROPODA MYTH OR FACT #6  
• Female bees cannot sting. **Myth**

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### Exhibit Stations

## Classes of Arthropods

CLASS CHELOPODA  
CLASS PNYGONOTIDA  
CLASS ARACHNIDA  
CLASS MAXILLOPODA  
CLASS MALACOSTRACA  
CLASS COLLEMBOLA  
CLASS INSECTA

High School Zoology

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### Zoology Curriculum Map

#### ZOOLOGY PACING GUIDE & LEARNING OBJECTIVES

Unit 1: Zoology Basics  
Unit 2: Taxonomy & Classification  
Unit 3: Subphylum Crustacea  
Unit 4: Phylum Mollusca  
Unit 5: Phylum Platyhelminthes

& Learning Objectives

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