

## INTERTIDAL MARINE BIOLOGY LAB SHEETS

### Phylum Cnidaria

1. Give some examples of Cnidarians.



2. List some features of Cnidarians.

3. Use your pinky finger to touch a sea anemone's tentacle. How does it feel?

What causes this feeling?

How does this benefit the sea anemone?

4. Cnidarians occur in two main body forms. Name and compare these two body forms.

5. Some Cnidarians alternate between the two body forms at different stages of their life.

This is called \_\_\_\_\_.

6. Would you normally expect to find a healthy jellyfish in the intertidal zone at low tide? Why or why not?

Is it safe to touch the tentacles of this jellyfish? Why or why not?

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### Phylum Echinodermata



1. List some features of echinoderms

2. Compare the mouth parts of any two echinoderms on display.

Based on your observations, hypothesize what type of food the animals eat and how they might eat it.

3. Complete the following table using drawings or descriptions of each feature.

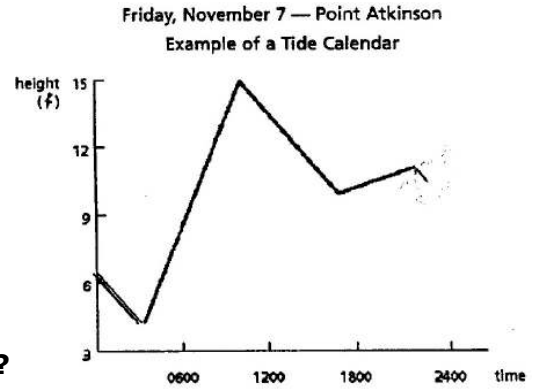
Animal	Hard Skeletal Elements	Tube Feet (draw these)	Pentaradial Symmetry	Mode of Defense
Sea Star				
Sea Urchin				
Sea Cucumber				
Sand Dollar				

## INTERTIDAL MARINE BIOLOGY LAB SHEETS

### Intertidal Ecology

1. What causes the tides?

2. Using the tide calendar and tidetable provided:  
When do the high tides occur on Friday, November 7th?



Example of a Tidetable

day	time	height (m)
<b>6</b>	0250	3.7
	1025	14.8
	1630	10.3
TH	2040	11.8
<b>7</b>	0345	4.3
	1120	14.9
	1745	9.9
VE	2155	11.4

When do the low tides occur on Friday, November 7th?

3. Complete the following table:

	Some Representative Animals	Stresses of Living Here	Advantages of Living Here
<b>Splash Zone</b>			
<b>Intertidal Zone</b>			
<b>Subtidal Zone</b>			

4. Note some generalized differences between the animals living in the Splash/High Intertidal Zones and those that live in the Low Intertidal/Subtidal Zones.

5. How do people affect the lives of animals in the Intertidal and Subtidal Zones?

**INTERTIDAL MARINE BIOLOGY LAB SHEETS**

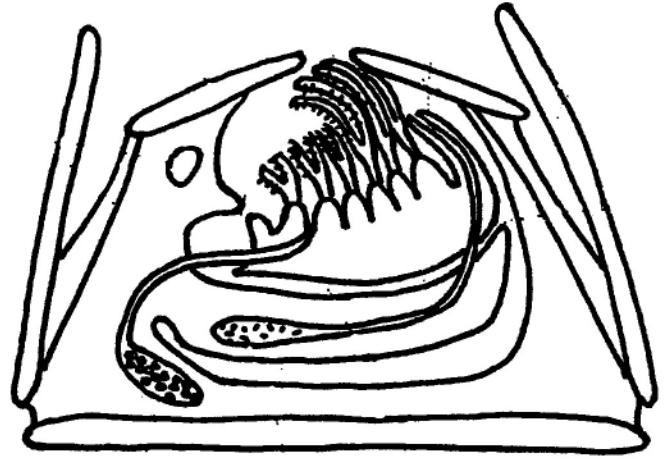
**Phylum Arthropoda**

**1. List some features of arthropods.**

**2. Identify one of the live arthropods on the table using a dichotomous key. Write down both the common and scientific names.**

**Common Name**

**Scientific Name**



**3. Look at the barnacle cross-section above. Label the features that indicate that it is an arthropod.**

**4. Observe various crustacean specimens on display, and fill out the following table.**

<b>Crustacean</b>	<b>Walking Legs (number)</b>	<b>Describe Pincers</b>	<b>Preferred Habitat</b>
<b>Dungeness Crab (True Crab)</b>			
<b>Puget Sound King Crab (Lithode Crab)</b>			
<b>Bering Hermit Crab</b>			
<b>Spot Prawn</b>			

**5. Identify two benefits of having an exoskeleton.**

**6. Identify two disadvantages of having an exoskeleton.**

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### Phylum Mollusca

1. Match the Class (center column) with any features on the left that represent that group, and with any animals on the right that belong to the group

Head-footed

Two shells

Radula

Beak

Muscular foot

Eight plates

Mantle

Stomach-footed

Filter feeders

Eight or more arms

**Gastropoda**

**Bivalvia**

**Polyplacophora**

**Cephalopoda**

Squid

Snail

Chiton

Oyster

Nudibranch

Scallop

Octopus

Limpet

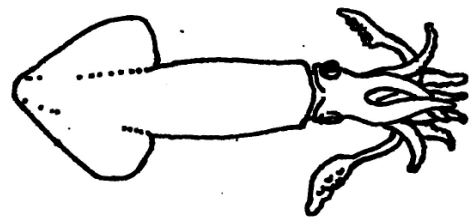
2. How do the following animals protect themselves?

Chiton

Nudibranch

Snail

Squid



**Proportion of Invertebrate Species Compared to Vertebrate Species**

