



Ocean Motion

Pre-class Activity



Shoe Sort

Introduction:

Before studying taxonomy and nomenclature of living things in the Ocean Motion class, students can first learn to classify shoes into kingdoms, phyla, classes, etc. After they learn how to classify shoes, students will understand why and how living things are classified.

Procedure:

1. Have each student take off one of their shoes and toss it into a pile in the center of the room.
2. Ask for three volunteers and inform the class that the volunteers will need their assistance in this activity.
3. Have a fourth volunteer go to the chalkboard to draw the classification scheme as the activity progresses.
4. Ask the class how you would divide the shoes into groups, based on similarities. If they attempt to produce more than 3 groups of shoes, limit them to 3. Ex: Students may divide them into sandals, boots, and tennis shoes. After the three "Kingdoms" are decided, put these three kingdoms at the top of the chalkboard, and put all the shoes into three piles. (No shoe is to be left alone in a kingdom; force the shoe into one of those three categories or whatever categories the students choose.)
5. Ask the class to divide one of the categories into subcategories. For example, with boots there maybe be those with pointed toes and round toes. These are "phyla." Draw the phyla on the board.
6. Continue until every shoe is a species all by itself. After this lesson, discuss the taxonomy and classification of living things into kingdoms, phyla, classes, etc. Make sure the scheme on the board follows scientific classification precisely (kingdom, phylum, class, order, family, genus, and species).
7. This activity can be reinforced by students classifying rocks and minerals (if you have some handy), marbles, or even toys. It is a wonderful hands-on activity to get kids of all ages to understand how life (and other things) are organized and made easier to understand.
8. You can have the students come up with their own mnemonic devices – that helps them remember the taxonomic classification system better. For example: **K**ids **P**refer **C**andy **O**ver **F**ried **G**reen **S**pinach is a way to remember scientific classification (**K**ingdom, **P**hylum, **C**lass, **O**rders, **F**amily, **G**enus, **S**pecies).



Ocean Motion Post-class Activity



Ocean Motion, Stand up!

Introduction: If you have ever played Seven Up, Stand Up this is a great twist to the old game. It is a great activity that gets the students involved with playing a game, but also testing their knowledge.

Directions:

- 1) Have all students sit at their desks and lay their heads in their hands. No peeking!!! Going around the room and pick 3 students to be the ‘ITS’. Tell them that if you tap their shoulder, they are to quietly go to the front of the room. Make sure all the other students are keeping their heads down.

- 2) When the ‘ITS’ have made it to the front, tell the other students that the game has now begun and for them to keep their heads down and quiet. The three ITS will go around and tap one student on the shoulder and then return to the front. Once the ITS have returned to the front, hand each of them a card with an Ocean Motion vocabulary word on it. The other students may raise their heads when told to.

- 3) The students that were tapped must stand up and try to guess which IT tapped them. If they choose the right ‘IT’ that tapped them, they can become the next ITS **ONLY** if they correctly define their ITS vocabulary term. It is recommended that the vocabulary terms be on small index cards for easy handling.

Vocabulary Terms:

*For the Phyla, you can have the students define one distinguishing characteristic of that phyla.

<u>Phyla:</u>	<u>Fish dissection:</u>	<u>Shrimp dissection:</u>	<u>Squid dissection:</u>
Chordata	Lateral Line	Rostrum	Buccal Mass
Arthropoda	Counter Shading	Exoskeleton	Siphon
Mollusca	Scales	Telson	Mantle
Cnidaria	Swim Bladder	Pereopoda	Chromatophores
Echinodermata	Gills	Antennules	Pen