

## Unit 1 Scientific Method and Taxonomy Review Day Stations

### Station 1: Taxonomy

[Interpreting Graphics Worksheet](https://www.biologycorner.com/worksheets/taxonomy_interpret.html) (Use this address if the link doesn't work:  
[https://www.biologycorner.com/worksheets/taxonomy\\_interpret.html](https://www.biologycorner.com/worksheets/taxonomy_interpret.html))

### Station 2: Six Kingdoms ( online computer animated activity)

[Online review of Six Kingdoms](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E07/E07.swf) (Use this address if the link doesn't work:  
[http://www.glencoe.com/sites/common\\_assets/science/virtual\\_labs/E07/E07.swf](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E07/E07.swf))

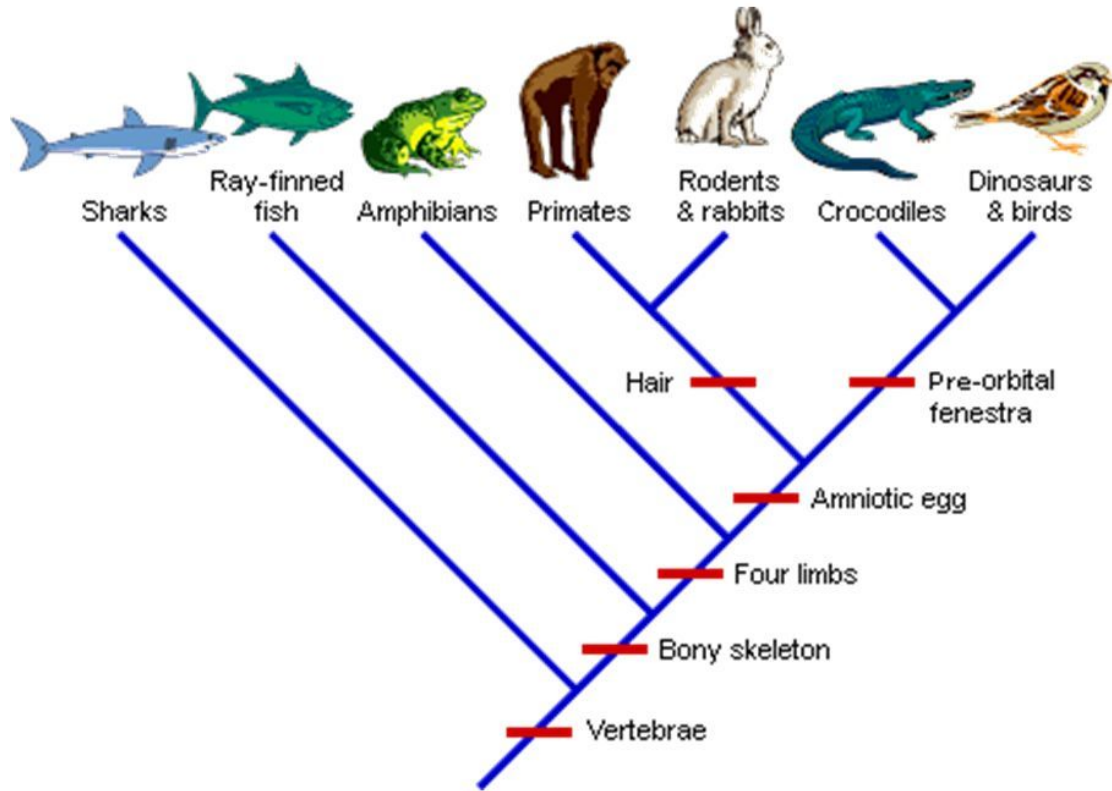
### Station 3: Characteristics of Life

[Go to this link on your device.](http://www.ck12.org/biology/Characteristics-of-Life/) Use this address if the link doesn't work:  
<http://www.ck12.org/biology/Characteristics-of-Life/>

Scroll down to find Mind Map. Explore the Mind Map links to videos, sites and animations to review Characteristics of Life. Draw the mind map on your review paper.

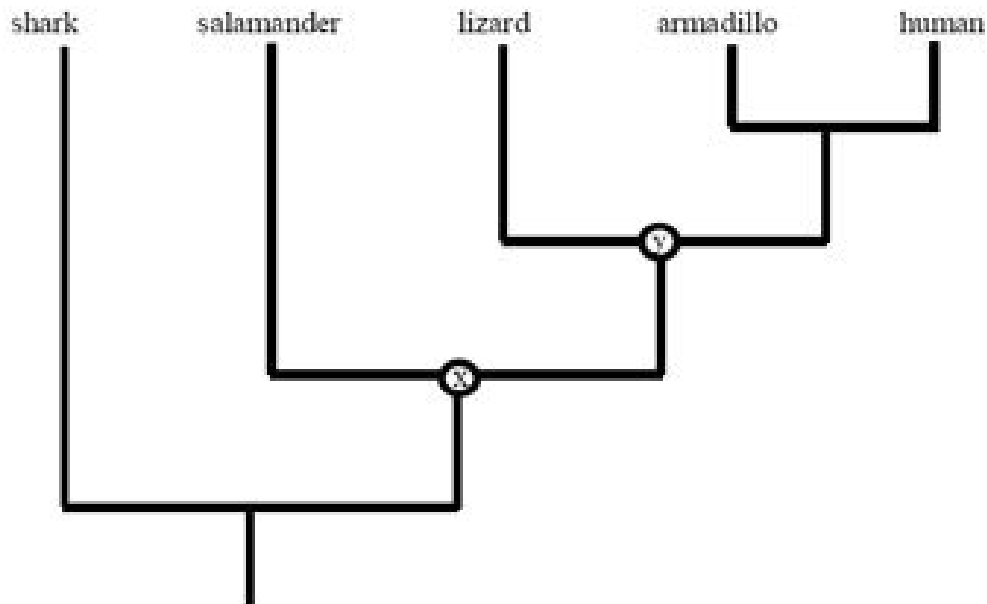
Once you have reviewed. Take the 11 question quiz at the station. Write answers on your review sheet. When everyone has finished the quiz. Ask the teacher for a key.

**Station 4: Station 4: Diagrams**



1. What organisms are the most related according to this diagram?
2. According to this diagram, what organism is the least similar from the others?
3. Which organism group is the most closely related?

Amphibians and Primates      OR      Rodents and Primates



1. Which letter, X or Y identifies the common ancestor of the salamander and lizard?
2. According to the diagram what organism evolved first from the group listed?
3. Which two organisms would share the most levels in the Classification System?  
 Shark and Lizard                      OR                      Armadillo and Human

**Station 5: Dichotomous Keys**

**Honors:** Students will create a dichotomous key using the items left by the discretion of the teacher... ideas are... old shoes, writing utensils, science lab materials, candy etc.

**Academic:** Students will complete the worksheet using the Dichotomous Key given.







## Identifying Aliens with a Dichotomous Key

Look carefully at the aliens pictured below. Use the dichotomous key to find the scientific name for each one.



- 1 a. Mouth open ..... go to 2  
b. Mouth not open ..... go to 4
- 2 a. Arms ..... go to 3  
b. No Arms ..... *Alienus quadlegicus*
- 3 a. Hairy ..... *Alienus hairicus*  
b. Not hairy ..... *Alienus tritoothicus*
- 4 a. No horns ..... go to 5  
b. Horns ..... *Alienus stripicus*
- 5 a. No legs ..... *Alienus blobicus*  
b. Legs ..... *Alienus fuzzicus*

Write your answers below.

Each of these aliens belongs to the same genus. What is their genus? \_\_\_\_\_

Look at the species name for each alien. How do you think these names were chosen?

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Graphics by Scrapin Doodles  
<http://www.scrapin-doodles.com/>

File by Tricia Sheri-Hunt  
<http://bookstoday.blogspot.com/>

### Station 6: THROW BACK STATION: Scientific Method

Academic: Read and Identify IV, DV, constants and controls

Use PDF I shared with you.... PAGE 3 only for Academic students

Honors: Create Hypothesis' and create controlled experiments.

**Experimental Design Honors** \_\_\_\_\_ **Name** \_\_\_\_\_

**Scientific Method** \_\_\_\_\_ **Block** \_\_\_\_\_ **Date** \_\_\_\_\_

**\*\*Practice: Write a hypothesis for each of the statements and identify the variables, control group, and experimental group.**

**1. Cigarette smoking increases the risk of lung cancer.**

**Hypothesis: If** \_\_\_\_\_ **, then** \_\_\_\_\_

**Independent Variable:** \_\_\_\_\_ **Dependent Variable:** \_\_\_\_\_

**Control Group:** \_\_\_\_\_ **Experimental Group:** \_\_\_\_\_

**2. Eating breakfast increases performance in school.**

**Hypothesis: If** \_\_\_\_\_ **, then** \_\_\_\_\_

**Independent Variable:** \_\_\_\_\_ **Dependent Variable:**

\_\_\_\_\_

**Control Group:** \_\_\_\_\_ **Experimental Group:** \_\_\_\_\_

**3. Hummingbirds are attracted to the color red.**

**Hypothesis: If** \_\_\_\_\_ **, then** \_\_\_\_\_

**Independent Variable:** \_\_\_\_\_ **Dependent Variable:** \_\_\_\_\_

**Control Group:** \_\_\_\_\_ **Experimental Group:**

\_\_\_\_\_

**Situations: Read the situation below and design an experiment.**

**John Smith has been hired by the city of Virginia Beach to investigate the recent shark attacks off the resort's coast. He has a budget of \$40,000, a 25 foot boat, and three graduate student assistants to help him. A helicopter has also been donated by a local television station, should he need one.**

**\* \* \***

**1. List 2 hypotheses John and his crew may have come up with for the recent shark attacks.**

**a. If \_\_\_\_\_, then \_\_\_\_\_**

**b. If \_\_\_\_\_, then \_\_\_\_\_**

**2. What materials will John need to perform this experiment (How will they spend the \$40,000?).**

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**3. Where should they perform the experiment (Hint: Where do sharks like to live)? \_\_\_\_\_**

**4. Pick one of the two hypotheses and determine the following:**

**a. Control Group:**

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**b. Experimental Group:**

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**c. Dependent Variable:**

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**d. Independent Variable: \_\_\_\_\_**

**5. What type of data do you think John will collect (What will be the results of the experiment)?**

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**6. What conclusions will John be able to make from the results of the experiment?**

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**Read the following situation and answer the following questions.**

**Suzie Q wants to know the effect of different colors of light on the growth of plants. She believes that plants can survive best in white light. She buys 5 ferns of the same species, which are all approximately the same age and height. She places one in white light, one in blue light, one in green light, one in red light and one in the closet. All of the ferns are planted in Miracle-Grow and given 20 mL of water once a day for 2 weeks. After the two weeks, Suzie observes the plants and makes measurements.**

**Hypothesis: If \_\_\_\_\_, then \_\_\_\_\_**

**Independent Variable: \_\_\_\_\_ Dependent Variable: \_\_\_\_\_**

**Control Group: \_\_\_\_\_ Experimental Group: \_\_\_\_\_**

**Constants: \_\_\_\_\_**

**-**

**What types of measurements can Suzie make on the plants to determine how they did in different types of light?** \_\_\_\_\_