Name: _____
Period: _____
Date: _____

Classifying Marine Mammals

Part I

1. Our current system of classification divides living things into a hierarchy, starting with the most general and becoming more specific. In the space below, list the seven levels of classification beginning with the most general.

   _____

   _____

2. Marine mammals belong to the kingdom _____, the phylum _____, and the class Mammalia. All animals in the class Mammalia share five characteristics. What are the five characteristics of mammals?

   1. _____
   2. _____
   3. _____
   4. _____
   5. _____

Part II

Your group will now receive one set of ***Marine Mammal Species Cards***. You will be responsible for creating a classification system for marine mammals using what you know about classification. Examine both the text and the diagrams on all of the cards to familiarize yourself with the marine mammals pictured. After examining the cards, work with your group to create **two or three** orders of marine mammals. Consider both the text and diagrams when grouping the organisms according to similarities.

In your group, come up with a name for each of these orders. In the table below (**Table 1**), write the name of each order, the species included in that order, and a brief description of the characteristics you used to divide them into those orders. (You may not need to use all of the rows provided; that will depend on how your group decided to classify the animals.)

Classifying Marine Mammals

Table 1

Order	Species Included	Characteristics
A:		
B:		
C:		

Now take a look at **Order A**, and again analyze each of the animals in that order. Group the animals from **Order A** into either two or three *families* based on shared characteristics. Name each of the families, and record this information in **Table 2**. Also, include a list of species placed in each family and the characteristics common to the organisms within each family. Continue to break these families into genera, and record the information in **Table 2**.

Once you have recorded all of your taxonomic groupings from **Order A** in **Table 2**, repeat the process for the remaining orders using the additional tables provided.

Classifying Marine Mammals

Table 2

Order A:	
Family	**Genus**
Family Name: Species Included: Characteristics:	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
Family Name: Species Included: Characteristics:	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
Family Name: Species Included: Characteristics:	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:

Classifying Marine Mammals

Table 3

<table>
<tr><th colspan="2">Order B:</th></tr>
<tr><th>Family</th><th>Genus</th></tr>
<tr><td rowspan="3">Family Name:

Species Included:

Characteristics:</td><td>Genus Name:
Species Included:
Characteristics:</td></tr>
<tr><td>Genus Name:
Species Included:
Characteristics:</td></tr>
<tr><td>Genus Name:
Species Included:
Characteristics:</td></tr>
<tr><td rowspan="3">Family Name:

Species Included:

Characteristics:</td><td>Genus Name:
Species Included:
Characteristics:</td></tr>
<tr><td>Genus Name:
Species Included:
Characteristics:</td></tr>
<tr><td>Genus Name:
Species Included:
Characteristics:</td></tr>
<tr><td rowspan="3">Family Name:

Species Included:

Characteristics:</td><td>Genus Name:
Species Included:
Characteristics:</td></tr>
<tr><td>Genus Name:
Species Included:
Characteristics:</td></tr>
<tr><td>Genus Name:
Species Included:
Characteristics:</td></tr>
</table>

Classifying Marine Mammals

Table 4

Order C:	
Family	**Genus**
Family Name: Species Included: Characteristics:	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
Family Name: Species Included: Characteristics:	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
Family Name: Species Included: Characteristics:	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:
	Genus Name: Species Included: Characteristics:

Classifying Marine Mammals

3. There are many ways to classify animals. Pair up with someone from another group. Share your classification system with your partner. In the space below, describe two similarities and two differences between your classification systems.

_____

_____

_____

_____

_____

_____

_____

Part III

Your instructor will now provide you with a ***Marine Mammal Taxonomy*** handout. Remember, taxonomy is the name for the system used to classify living things. This handout includes ALL of the marine mammal species, and shows you one way they have been classified by scientists. In the tables, the scientific name (genus and species) can be found on the left and the common name can be found on the right. You'll notice that some of the orders have been broken down into suborders. These groupings are more specific than orders, but more general than families. Look over the handout and use it to answer the following questions.

4. How many different orders of marine mammals are there? Name them, and give one example of an animal from each order.

_____

_____

_____

_____

5. An animal's scientific name consists of two italicized words: the genus name first (the first letter is capitalized), and then the species name (all lower case).

   a. What is the scientific name of the polar bear? _____

   b. List three species that are found in the same genus. Give both their scientific name and their common name.

   _____

   _____

   _____

Classifying Marine Mammals

6. The largest animal in the world is the blue whale.
   a. What order is the blue whale found in? _____

   b. What family? _____

   c. What is its scientific name? _____

7. Are porpoises dolphins? Are porpoises whales? Explain your answers.

_____

_____

_____

_____

_____

_____

8. Which two species are more closely related, the Northern fur seal and the harbor seal, or the harbor seal and the gray seal? Explain your answer.

_____

_____

_____

_____

_____

_____

9. Examine the organisms of the order Carnivora. As noted on the ***Marine Mammal Taxonomy*** handout, there are other terrestrial species also found in the order Carnivora. Examples include lions, raccoons, dogs, and skunks. This order contains a very diverse group of organisms. Describe at least three characteristics (either physical and/or behavioral) that these organisms have in common, despite all their differences!

_____

_____

_____

_____

_____

_____