



Classification Challenge

Student Activity



Name _____

Class _____

Open the TI-Nspire document *Classification_Challenge.tns*.

Move to pages 1.2 – 1.3.

1. Read through pages 1.2 and 1.3 in the .tns file as well as the background information stated below.



Ever wonder how organisms are classified? Whenever a new species is discovered, it must be placed into orderly groups based on similar characteristics. This process is known as **taxonomy**, which is the science of describing, naming and classifying organisms. **Classification** of organisms has been going on for a long time (since 350BC!). Aristotle began classifying organisms into groups based on many simple characteristics such as if they laid eggs or not. In this activity, it's your job to be the **taxonomist!**

Activity 1: Key Vocabulary

Move to page 1.4.

2. You will see a list of vocabulary words on the right hand side of the page. Each one of the words represents one of the eight major taxonomy "ranks." Your job will be to drag and drop the words onto the left side of the page in order from **largest** group of organisms to **smallest** group of organisms.



Once the task is completed, you will then be given either a **smiley face** or a **“no” face** depending on whether your answers are correct or not. You can select the **Reset** button on the screen to try again.



Tech Tip: The text will drag to the right of your finger as you slide it across the screen. Be sure to drag the text all the way to the correct position so that you do not drop it in the incorrect position by accident.

Move to pages 1.5 and 1.6. Answer questions 1 and 2 below and/or in the .tns file.

Q1. Which taxonomic rank has the *largest* amount of organisms placed in it?

- A. Phylum
- B. Species
- C. Class
- D. Kingdom
- E. Genus



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Q2. Which taxonomic rank has the *smallest* amount of organisms placed in it?

- A. Kingdom
- B. Species
- C. Family
- D. Genus
- E. Class

Q3. Fill in the table with all of the seven major taxonomy classifications ranked in order from Largest to Smallest.

Levels of Classification

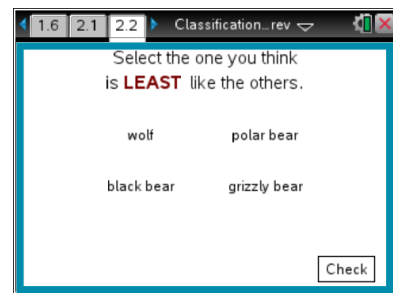
Activity 2: If It Doesn't Fit...

Move to page 2.1.

3. Read the descriptions and instructions on page 2.1 for the simulation on page 2.2.

Move to page 2.2.

4. In this activity you will select which organism fits LEAST with the others in the list. There are many possibilities, so be prepared to defend your answer in class. Once you make your selection, then select . If you select the correct choice a **smiley face** will be displayed. If not, you will see a **"no" face**.



Continue through this simulation by selecting the Next button.

Make sure you answer all 12 of the scenarios before you move onto page 3.1. You will know you have answered all 12 of them when your score pops up on the screen.

You may go back to view your choices, but once you select the Check button you will not be allowed to change your answers.



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Q4. Circle your selection for each scenario and then record your justification for your selection.

1.	grizzly bear	polar bear	wolf	black bear
Answer Justification:				
2.	oak tree	maple tree	pine tree	birch tree
Answer Justification:				
3.	black lab	Felis catus	beagle	Australian shepherd
Answer Justification:				
4.	mushroom	mold	yeast	moss
Answer Justification:				
5.	segmented worms	roundworms	insects	flatworms
Answer Justification:				
6.	sea turtle	green tree frog	American toad	tiger salamander
Answer Justification:				
7.	lizard	alligator	frog	
Answer Justification:				
8.	box turtle	frog	snake	
Answer Justification:				
9.	yeast	worms	sponges	insects
Answer Justification:				
10.	kangaroo	panda	brown bear	black bear
Answer Justification:				
11.	shark	trout	penguin	minnows
Answer Justification:				



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12.	whale	human	dolphin	trout
Answer Justification:				

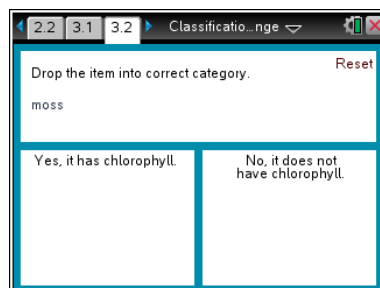
Activity 3: Sorting Challenge

Move to page 3.1.

5. Read the descriptions and instructions on page 3.1 for the simulations on page 3.2 and 4.1.

Move to pages 3.2 and 4.1.

6. On the top of page 3.2, you will see a specific organism that you will have to *drag and drop* into one of the correct categories below. Once you drag and drop the first one into a category, another one will appear.



If you make a mistake, you can select the reset button on the top right corner of your screen. A **smiley face** or a **“no” face** will appear depending on whether or not you responded correctly.

Page 3.2 and page 4.1 each have a sorting challenge. Good Luck!

Q5. As you go through the simulation, circle the organisms that have chlorophyll in the table below.

Page 3.2	algae	ferns	flowering plants	fungi	moss
Justification:					

Q6. As you go through the simulation, circle the organisms that reproduce by seeds in the table below.

Page 4.1	algae	ferns	flowering plants	moss	fungi
Justification:					

Move to pages 5.1 and 5.2. Answer questions 7 and 8 below and/or in the .tns file.

Q7. Which organism (of the ones listed on pages 3.2 and 4.1) has chlorophyll AND reproduces by seeds?

- A. moss
- B. algae
- C. ferns
- D. flowering plants
- E. fungi



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Q8. In this activity, you used characteristics like chlorophyll and seeds to classify plants. What characteristics do you think scientists use to classify animals?