

Observing the Characteristics of Life

Name: _____

Hour: _____ Points Possible ____/ 35

Learning Target: St5obj1c Defend the importance of observation in scientific classification.

In this activity, you'll identify observable characteristics of life in videos of various organisms and describe those characteristics.

Review:






What are six easily observable characteristics of living things?

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



Warm up exercise:

1. Complete the table below by writing **yes** or **no** in the columns of each characteristic to indicate if the object/thing is living/once living or nonliving. A living thing should have all of the six characteristics.

Object/Thing	Have cells	Respond to stimuli	Grow and develop	Use energy	Reproduce	Have DNA	Is the object/thing living/once living or nonliving?
Rock 							
Tiger 							
River 							
Sunflower 							
Dirt 							

2. Why is a computer considered to be a nonliving thing?

Directions to Computer Activity:

Complete the chart on the back of this paper by going to the online classification calendar, finding today's date and opening up a web based version of this worksheet. This will give you access to the active video links needed to complete the chart on the back of this paper. Click on each video link in the category box to link to each video. Read the introduction to each video and watch it. Complete the chart as directed.

Characteristics of Life Data Table

Category	Video Link (Put your cursor on the link. Hit the control key on your keyboard. Wait for the hand to appear and right click on your mouse once).	Characteristics of Life (List at least 1 for each)	Draw a picture of what you observed
1. C. elegans (<i>Caenorhabditis elegans</i>) Video: Using Energy (movement) <i>C. elegans</i>	http://www.exploratorium.edu/imaging_station/students/c_elegans.html		
2. Sea Urchins (<i>Lytechinus pictus</i>) Video: Sea urchin cell division	http://www.exploratorium.edu/imaging_station/students/sea_urchins_div.html		
3. Sea Urchins (<i>Lytechinus pictus</i>) Video: Sea urchin fertilization	http://www.exploratorium.edu/imaging_station/students/sea_urchins_fert.html		
4. Blood Cells Video: Human white blood cells	http://www.exploratorium.edu/imaging_station/students/blood_cells.html		
5. Cellular Structure and Function Video: <i>Elodea</i> leaf cells	http://www.exploratorium.edu/imaging_station/students/cell_struct_funct.html		
6. Stem Cells Videos: Compare Mouse embryonic stem cells – movie 1 with Heart cells grown from mouse embryonic stem cells – movie 1	http://www.exploratorium.edu/imaging_station/students/stem_cells.html		
7. Cell Motility Video: Crawling <i>Amoeba</i>	http://www.exploratorium.edu/imaging_station/students/cell_motility.html		
8. Zebrafish (<i>Danio rerio</i>) Video: Zebrafish development	http://www.exploratorium.edu/imaging_station/students/zebrafish.html		