



## “WHEN” OLOGY

<b>Grade Span</b>	K-2
<b>Time Span</b>	1 hour program at a minimum of 4 times a year to develop a record of change.
<b>Standards</b>	Science: Use observation to describe patterns of what plants and animals (including humans) need to survive. (K-LS1-1) Mathematics: Directly compare two objects with a measurable attribute in common, to see which object has “more of” / “less of? the attribute, and describe the difference. (K.MD.A.2)
<b>Focus Question</b>	<ul style="list-style-type: none"> <li>• How do animals survive challenges, like changing seasons?</li> <li>• How do animals adapt to their surroundings?</li> </ul>
<b>Overview</b>	To show students how to make observations using their sense of smell, hearing, sight, and touch using natural objects.
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Describe objects based on their properties (size, mass, shape, color, and texture)</li> <li>• Compare objects based on their properties.</li> <li>• Record observations relative to their properties.</li> </ul>
<b>Materials Needed</b>	<ul style="list-style-type: none"> <li>• Magnifying lenses</li> <li>• <u>Sense Question Signs</u></li> <li>• Attribute Objects <ul style="list-style-type: none"> <li>○ wood slab (three sizes)</li> <li>○ rocks (three sizes; weights, color)</li> <li>○ bark (two textures; smooth, rough)</li> <li>○ leaves (three sizes; shapes, color, and lengths)</li> <li>○ Pictures of trees at three stages; seedling, sapling, mature</li> <li>○ Pictures of birds at various sizes; crow, eagle, chickadee, robin</li> <li>○ Pictures of a bear, deer, squirrel; compare and contrast</li> </ul> </li> <li>• Discovery pages (blank sheet of paper)</li> <li>• Markers</li> <li>• Crayons</li> <li>• Clip Boards</li> </ul>
<b>Vocabulary</b>	Phenology: Phenology is the study of seasonal change and timing.
<b>Teacher Prep</b>	<ul style="list-style-type: none"> <li>• Identify an area around the school grounds to hold the lesson.</li> <li>• Place a rock, bark, wood slab, and pictures of trees and birds in an area where students can investigate prior to starting.</li> </ul>
<b>Background</b>	
<b>Procedure</b>	<b>Engage:</b>



1. Allow students to explore the attribute objects without any instruction.

## Explore:

### PART 1

1. Gather in a circle around the objects. Hold up and read each of the question signs and let students describe what they see.
  - a. What do you SEE?
  - b. What do you HEAR?
  - c. What do you SMELL?
  - d. How does it FEEL?
2. Show how to observe and describe the objects based on their properties listed in the table below.

Shape	Mass	Texture	Size	Color

### PART 2

1. Go on a hike around the school grounds to observe and describe objects based on their attributes.
2. Have students draw what they see and have them dictate while you write what they observed. This could easily be a one-on-one time during a centers time.

## Explanation:

1. Once all observations are drawn and described, regroup the class and have students share their observations with the class.

## Extension:

Using a whole group observation format observe and record changes of a tree (preferably a red maple or apple) or record the activity at a birdfeeder throughout the year. Record the observations on a poster board or chart paper. Use the observations as a part of a morning routine.



	<b>WIGGLE RELIEF:</b> <u>Play Rock, Rock, Tree.</u> (A variation of Duck, Duck, Goose)
<b>Wrap-Up</b>	<b>Evaluate:</b> Show a picture of a flower or show an actual flower (you could use any living organism) and ask students to describe using 3 words.



# What do you SEE?



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# What do you HEAR?



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# What do you SMELL?







# How does it **FEEL?**

