

# 6th Science 2/14/19

Essential Question: What kinds of questions do biologists ask about living things?

CW: Lesson 1.3

HW: No HW

# Agenda

- 1) Wrap up Activity 1.2
- 2) Activity 1.3
3. Quizlet.live

What did you learn about botanists, microbiologists,  
primatologists and marine biologists?



**Collaborate!**



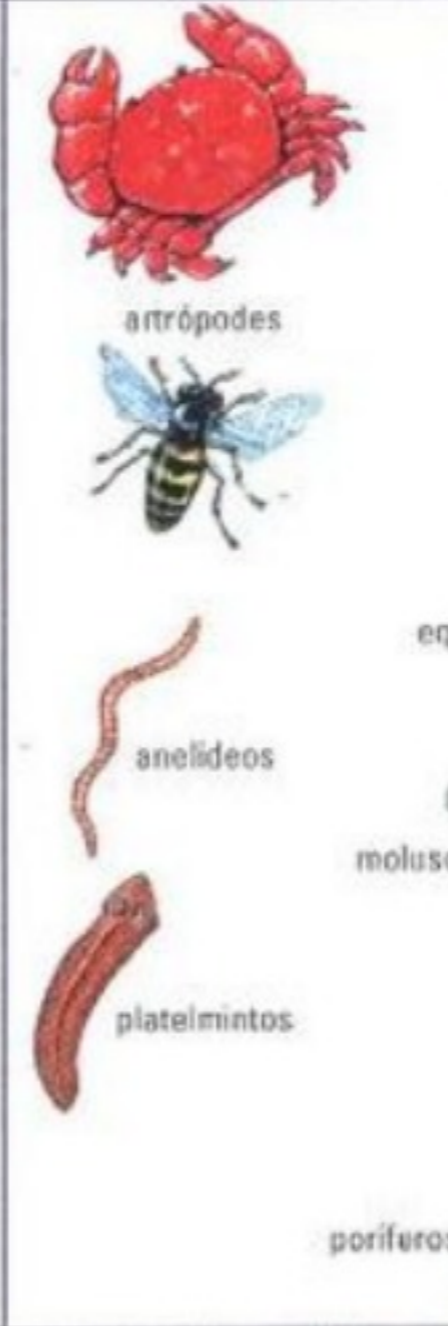

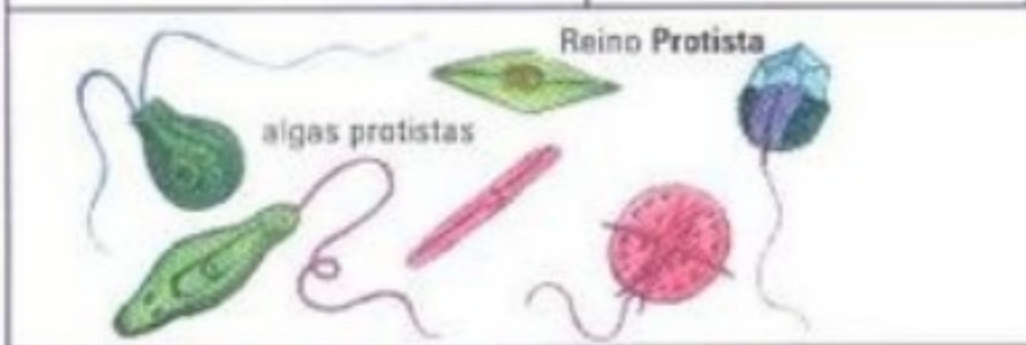

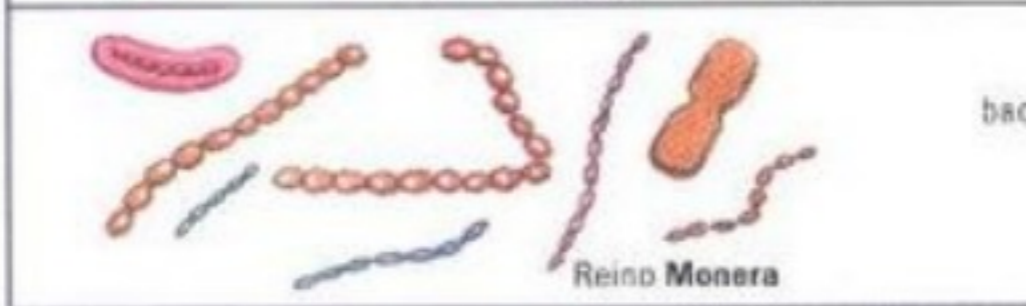

**What did you learn about botanists, microbiologists,**

# Open Ended Question

**How did the interactions you observed at home compare to the ones you observed in class?**

# Academic Language: Organism



Reino Plantae	Reino Fungi	Reino Animalia	
 <p>plantas com sementes</p> <p>samambaia</p> <p>musgos</p> <p>algas vermelhas, pardas e verdes</p>	 <p>fungos</p>	 <p>artrópodes</p> <p>anelídeos</p> <p>platelmintos</p>	 <p>vertebrados</p> <p>equinodermas</p> <p>moluscos</p> <p>cnidários</p> <p>poríferos</p>
<p>Reino Protista</p>  <p>algas protistas</p>		 <p>protozoários</p>	
 <p>Reino Monera</p>		 <p>bactérias</p>	

ORGANISM	INTERACTING WITH	INTERACTION	POSSIBLE REASONS
spider	web, other insects	trapping insects	to get food



# Discussion Questions

Seat A + D answer:

- What would happen if you do not have anything to eat?
- What would happen if a spider could not make a web to catch its food?
- What would happen if a bird could not fly away from a cat?

Seat B + C Listen - you will be asked to share answers with the class

# Discussion Questions

What are the two types of things organisms were interacting with during your observations?

Why did the organisms interact?

# Did an Ant build this anthill?



# What would happen if an organism came and ate two ants?



# Open Ended Question

**What would happen to the ant population if there was not a place for nesting?**

**If a pine tree is struck by lightning it might burn and die. Will the forest continue to thrive?**



Population – A group of organisms belonging to the same species

Community – All the populations of different organisms living and interacting in the same space at the same time

Ecosystem – A community of living organisms and the abiotic factors which affect them

Abiotic – The physical and chemical features of the environment

Biotic – The biological features of the environment (living)

Niche – A species role within it's habitat

Adaptation – A feature that members of a species have to increase their chance of survival



# Driving Question Board Questions

Think about things that populations may need to survive, and to use these to form questions that could help them investigate the Driving Question: What Can Cause Populations to Change?

## **Activity 1.3 – What causes a population to change?**

### **What will we do?**

We will discuss the key factors that might cause the number of an animal to change.

### **Procedure**

- Brainstorm:** Why might the number of animals in an area go up or down?

- Group Discussion:** Share with your group members what you think are the main reasons that animals might increase in number or decrease in number.

What are the key factors that determine if a species



**Collaborate!**

**What are the key factors that determine if a species will**

## **Analysis and Interpretation**

1. What do you think is the most important factor for a species?



## Reading 1.3 – Wildlife Biologists at Work

### *Getting Ready*

Have you ever been around a child who seems to want to learn about everything? They watch things closely. They might get down on the ground to watch a worm move through the grass. They might watch tiny ants carrying food to their anthill. They might sit quietly and watch birds build their nest in a tree. Maybe these were things you did when you were younger, or that you still do now! Biologists make careful observations of organisms and their environment, too. They watch organisms really closely to learn about their behavior. Today, you will read about wildlife biologists who are trying to solve a problem by closely watching the interactions of sheep.

### *What Has Happened to the Sheep?*

In class, you learned that whole populations of organisms have the same survival needs as individuals. If one organism dies, the population can survive. However, if all of a population begins to change, biologists try to figure out why. Just like you did on your field observation, biologists look for interactions between organisms, and between organisms and their environment. In this reading, you will learn about a population of organisms called Dall sheep. Their population began to decrease, and wildlife biologists, who study organisms in wilderness areas, wanted to figure out why.

# Open Ended Question



**What kind of interactions do you think biologists might look at as they study a population of sheep?**