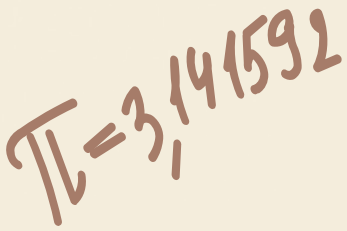
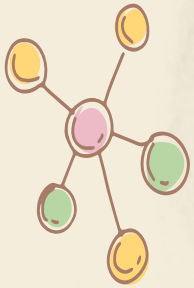




# Investigations in Environmental Science

**General Education & Honors**

LUTHER JACKSON MIDDLE SCHOOL STUDENTS

build **R**elationships believe **O**ther People Matter strive for **A**cademic Success seek to **R**ealize our Potential

7th Grade Science

# Investigations in Environmental Science

01

## What is it? It's Science7 or Life Science!

**7th grade science is the students' first academic immersion into ONE specific area of science – specifically biology!**

02

## How do we do it?

**Classes are centered around structured, *inquiry-based* investigations. They will have the opportunity for *blended learning*, where they will incorporate digital and hands-on resources into their activities and assignments.**

03

## Why is it important?

**Because 7th grade science becomes the foundation for the students' high school science experience, where they will explore Biology & Env. Sci. in greater depth.**

# What will we be learning?

Quarters 1&2: Ecology/Environmental Science

## Unit 1

**Interactions & Interdependence in Ecosystems**

## Unit 2

**Cause & Effect Relationships in Ecosystems**

Quarter 3: Cellular Structure & Function

## Unit 3

**Matter & Energy in Living Systems**

## Unit 4

**Stability & Change in the Hereditary System**

Quarter 4: Genetics & Heredity

# Some examples of differences between:

## General Education

Unit – Cells

- 8 cell organelles & functions
- Compare and contrast plant & animal cells
- Given analogy to match to cell organelle function
- Slotted notes from video, reading, and direct instruction

## Honors

- Students explore all of the Gen Ed content
  **PLUS**:
- Additional organelles (10) & functions
- Create analogy of each organelle
- Cornell Notes with structured outline from videos, reading, and direct

# What does DIFFERENTIATION look like?

**Directions and Responses:**
Read about scientists who have helped us learn more about cells. You may also use other resources provided by your teacher. Summarize each scientists work in the thought bubbles.

| Contributor | Summary of Contributions |
|---|---|
| Robert Hooke 1660's | I contributed to the cell theory by_____ |
| Anton van Leeuwenhoek 1670's | I contributed to the cell theory by_____ |
| Matthias Schleiden & Theodor Schwann 1830's | I contributed to the cell theory by_____ |
| Rudolph Virchow 1850's | I contributed to the cell theory by_____ |

**Directions and Responses:**
Read about scientists who have helped us learn more about cells You may also use other resources provided by your teacher. Summarize each scientists work in the thought bubbles.

| Contributor | Summary of Contributions |
|---|---|
| Robert Hooke 1660's | I contributed to the cell theory by using my _____ to observe living things. That is how I was able to discover and name _____ even thought I didn't really know what they were or that they were very important. |
| Anton van Leeuwenhoek 1670's | I contributed to the cell theory by making lots of _____ made of glass. I used the them to look at lake water. I saw many small moving things in the water which I called _____. I wrote to Robert Hooke about them. |
| Matthias Schleiden & Theodor Schwann 1830's | We contributed to the cell theory by looking organisms under a _____. We both thought that all organisms are made of _____. |
| Rudolph Virchow 1850's | I contributed to the cell theory by looking at cells through a _____. My friend showed me that cells seemed to grow and split in |

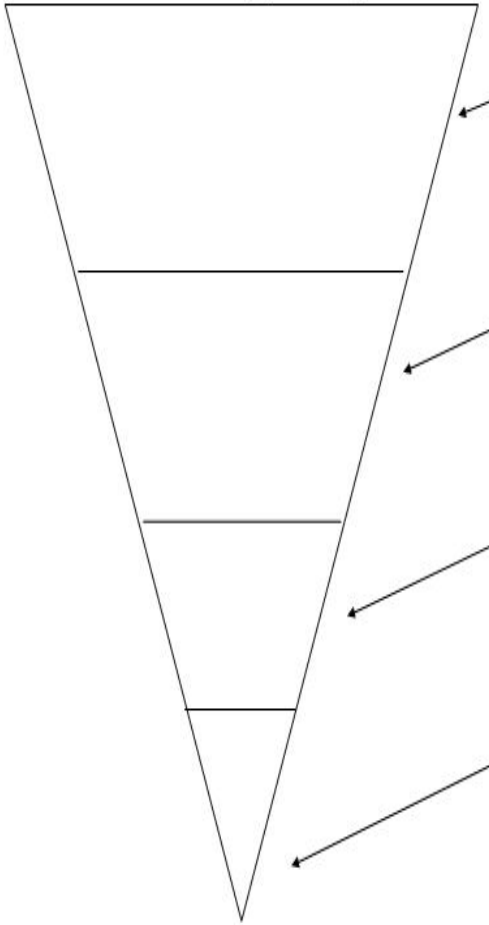
# What does DIFFERENTIATION look like?

Date _____

Period ___

## HW 2-1 HN Ecological Organization Temperate Deciduous

Directions: Look at the graphic. Fill in pictures that correctly identify the levels of organization.



1. What is in the **ecosystem**?

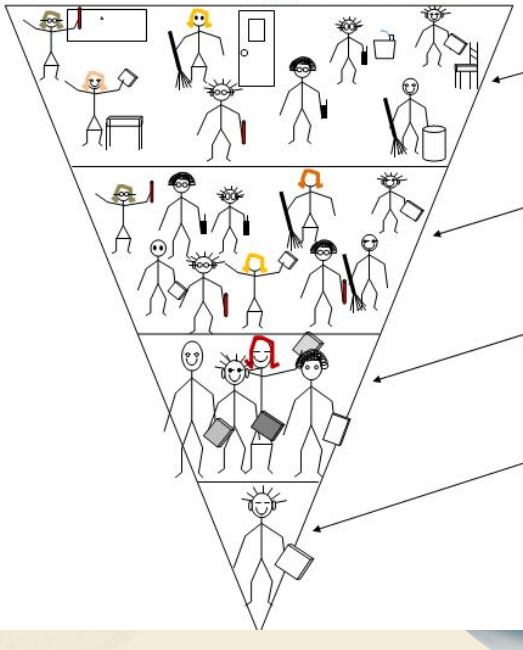
2. Who is in the **community**?

3. Who is in the **population**?

4. Who is the **individual** in this graphic?

## Ecosystems

Directions: Look at the graphic. Answer the questions.



1. What is in the **ecosystem**?

2. Who is in the **community**?

3. Who is in the **population**?

4. Who is the **individual** in this graphic?