

**To get out: It's Alive worksheet
Student info sheet
Warm Up
Name Tag**

Homework: Living Organism Lab tomorrow

7:45AM - 8:15AM	Homeroom <i>Announcements via PA at 7:45AM</i>
8:20AM - 9:03AM	Period 1
9:08AM - 9:51AM	Period 2
9:56AM - 10:39AM	Period 3
10:44AM-11:30AM	Period 4 <i>Announcements at the start of period 4 (10:44 - 10:47)</i>
11:35AM - 12:06PM	Lunch
12:11PM - 12:54PM	Period 5
12:59PM - 1:42PM	Period 6
1:47PM- 2:30PM	Period 7

Objective: Students will be able to use scientific vocabulary to discuss the 6 characteristics of life.

Agenda: Warm Up
myMCPS and Weebly
Notes
Review Game

Homework: Bring your Organism to class TOMORROW

Name: Pd:

Biology Weekly Warm Ups

Week of: 9/3 to 9/6/19

Directions: Complete your warm up questions for each day in the boxes below. You must write the question and the answer for each of the questions every day. If you are absent, you must record the warm ups from the days that you missed.

Today is Wednesday!
flip your paper to the back!

Wednesday

Stamp:

Question: Answer:	Question: Answer:
Question: Answer:	Question: Answer:

Identify the list below as living or nonliving

Water	Fire
Mrs. McGaffin	Bacteria
Pumpkin Seed	Oak Tree

Wednesday

Stamp:

<p>Question: I think these are living...</p> <p>Answer: Answer Here</p>	<p>Question: I think these are nonliving...</p> <p>Answer: Answer Here</p>
<p>Question:</p> <p>Answer:</p>	<p>Question:</p> <p>Answer:</p>

How to be successful in Biology:

- 1) **Attendance/Attention/Effort-** Come to class each day, pay attention and complete all of your work.
- 2) **Know your Grades-** Check your grades frequently on myMCPS Portal to know if you are missing work.
- 3) **Read your daily email.** Mrs. McGaffin will give you hints for success and remind you of homework.
- 4) **Go to weebly** to access handouts and notes from each day and to see extra resources that will help you.
www.MrsMcGaffin.weebly.com
- 5) **Learn your Biology Vocabulary!** Use flashcards or Quizlet to learn vocab. Making the flashcards yourself is part of the process of learning.
- 6) **Ask questions** and come for lunch help when needed.
- 7) **If you are absent read your email to know what we did and print the papers off of weebly or pick them up in the extra papers bin on the back desk. Yes, we did something when you were gone and you are responsible to get it done.**

You are invited Mon-Wed and Fri from 11:30-12:00 to come in and work with me.

Do you have a grade app?

Type in www.mrsmcgaffin.weebly.com

The next few slides will match the notes on the back of your paper

Fill them in as we go along



Name: _____ Date: _____ Period: _____

It's Alive!!

There are specific characteristics that all organisms ("living things") share. In groups, you will observe the activities of the cricket, plant and fire on your desk. Not everything you observe today is a living thing. Your job is to determine what it is that makes a living organism alive.

QUESTION: What are some characteristics common to all living organisms?

MATERIALS: Hand lens Cricket
 Erlenmeyer flask Piece of carrot
 Germinating Seeds Candle
 Safety Goggles

Part 1: Observations

DIRECTIONS: Observe the cricket, germinating seeds, and fire. Work with your group to determine the six characteristics of life that all living things share. Write the characteristics of life in their corresponding category below.

Characteristics of Life	
Found in All Living Organisms BUT NEVER found in a nonliving thing	Found in All Living Organisms BUT ALSO in some nonliving things.

The 6 Characteristics of Life:

List the 6 characteristics of life below as given on the board.

1. All organisms are _____.

Single Celled organisms are made up of only 1 cell.

Multicellular organisms are made of many cells that work together in the organism.

Hierarchy: _____ → _____ → _____ → _____

2. Organisms _____ to pass on their _____. The two types are _____.

3. Organisms _____ and _____.

4. Use _____. Ex: Producer/Autotroph _____.

Consumer/Heterotroph _____.

5. _____ to their _____.

External example: _____.

Internal Example: _____.

Homeostasis: _____.

6. Populations of organisms _____.

Organisms must possess _____ the characteristics of life.

Homework Assignment due date/deadline Thursday:

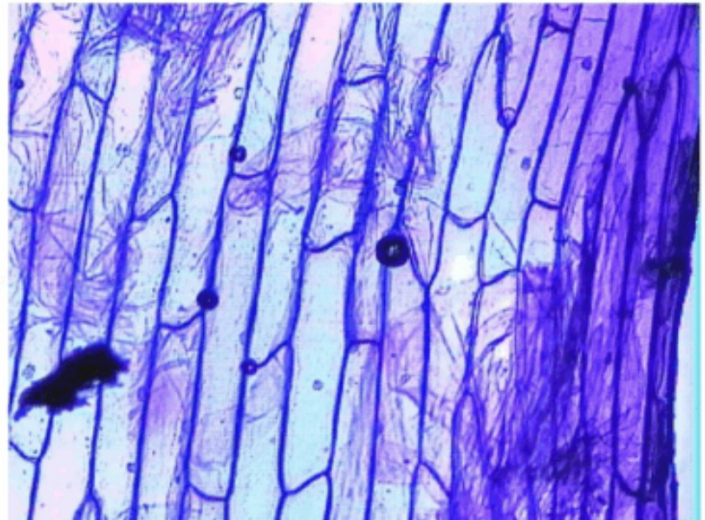
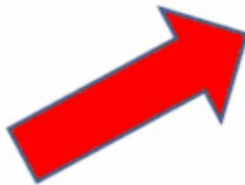
Observing Living Organisms Lab

-You are to bring in a living organism in a container that can be observed by your peers in class. Use the following guidelines to choose your organism:

- The organism can be an animal, plant, fungus, protist, or bacteria.
- If you are bringing an animal, it MUST be in an escape proof container.
 - The container should not be any larger than a 10 gallon aquarium or a small cage.
- You may bring in a sample of a substance that would contain living organisms...ex: Pond water. We will have microscopes available if needed.
- If you are bringing a plant, it MUST be the entire organism, not just a leaf.

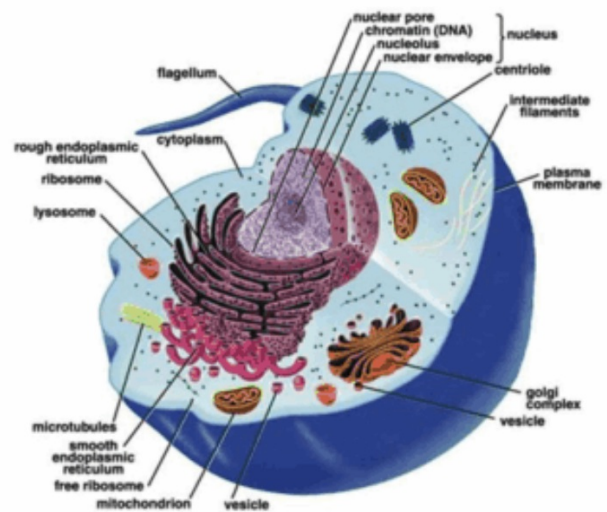
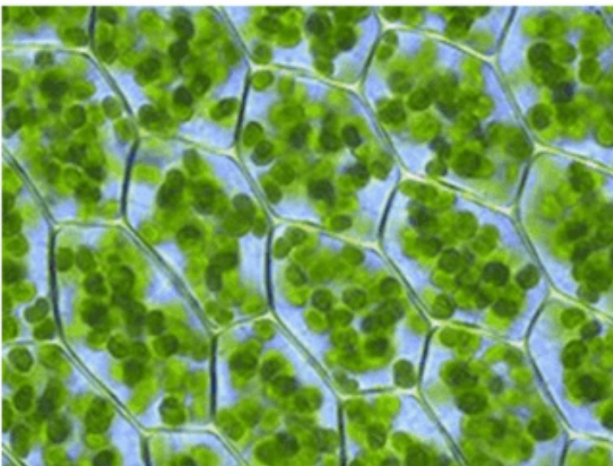
Characteristics of Life

- 1. All organisms are composed of basic units called CELLS



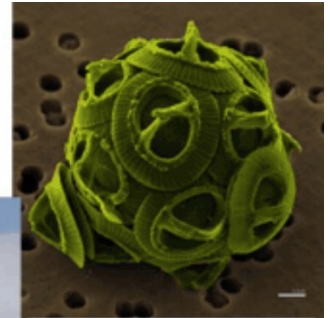
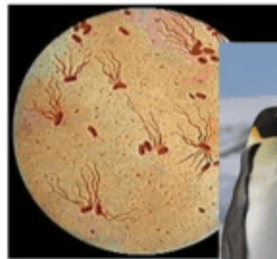
1. CELLS

- Cells are the *smallest unit* of a living organism
- Cells are complex and organized
- Within a cell are **organelles** that do different jobs. (ex: chloroplasts make sugar in plant cells)



ORGANISM

- A **living** part of the environment
- In this class, do not use the term “living thing” (it just kind of bugs me), instead, we will say **ORGANISM**

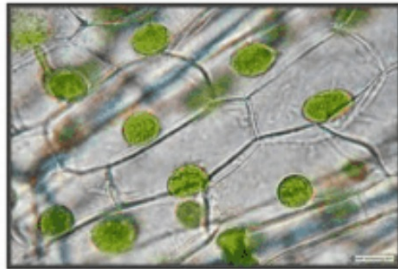


Organisms are grouped by their number of cells

- Single Celled organisms: Only contain 1 cell



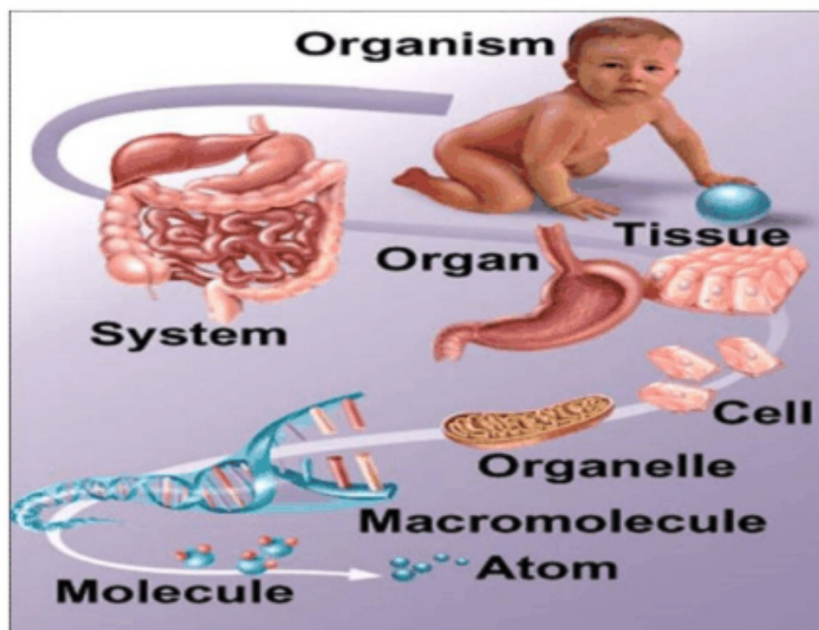
- Multicellular organisms: Made up of many cells.



Multicellular organisms are made up
of many cells that work together

Hierarchy:

Cell → Tissue → Organ → Organ System → Organism



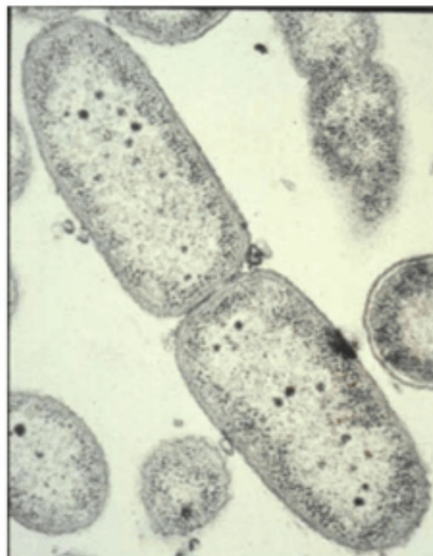
Characteristics of Life

- 2. Organisms **REPRODUCE** to pass their **genetic traits**



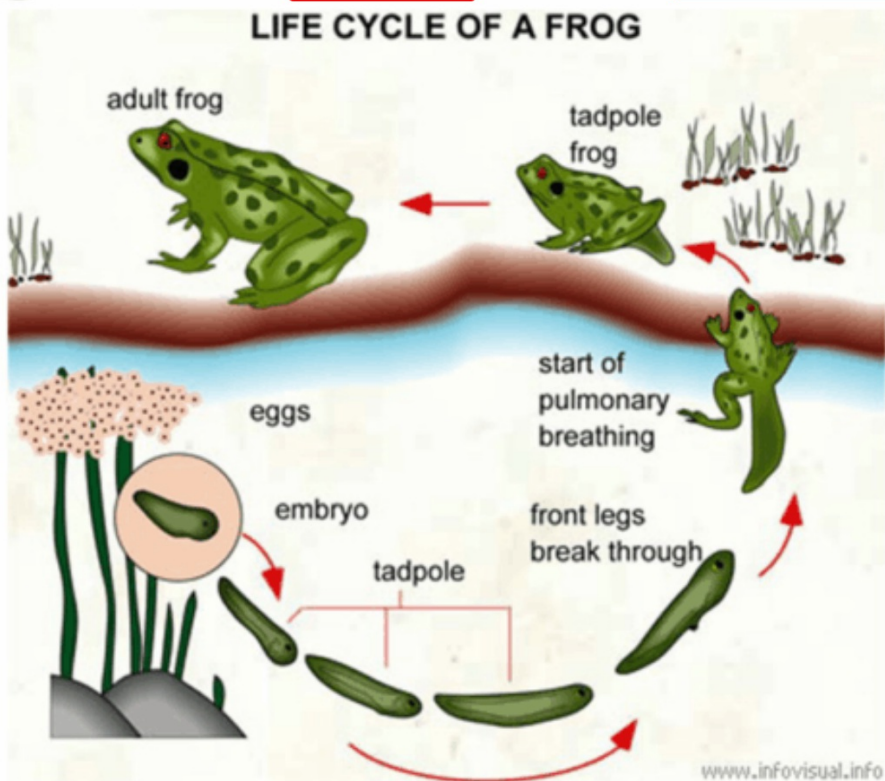
2. REPRODUCTION

- The two types are Sexual and Asexual reproduction
 - **SEXUAL reproduction:** Two different parents with varying offspring
 - **ASEXUAL reproduction:** One parent makes an identical organism



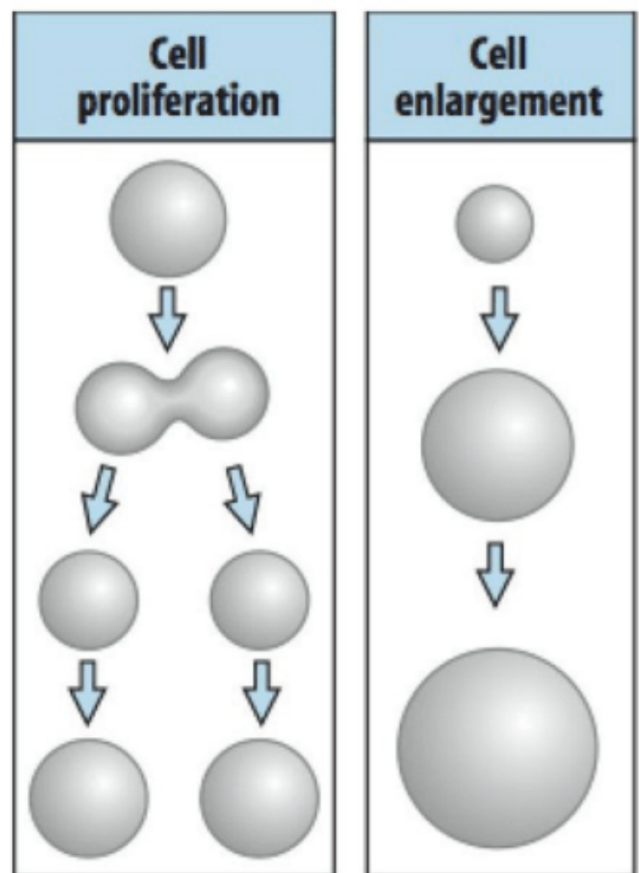
Characteristics of Life

- 3. Organisms **GROW AND DEVELOP**



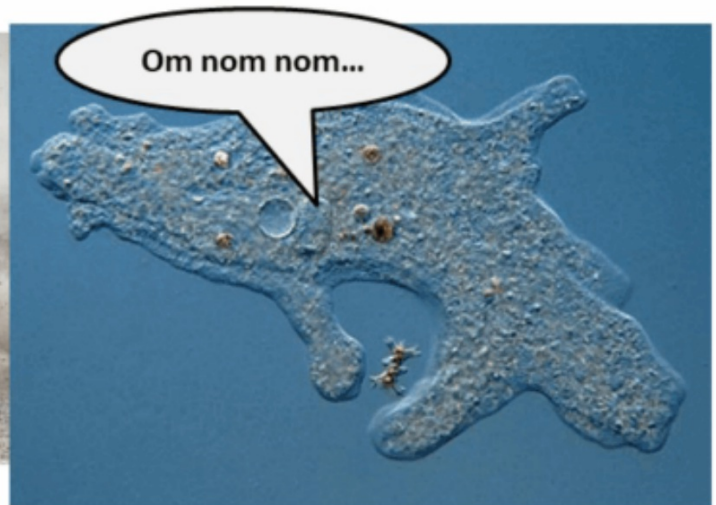
3. GROWTH AND DEVELOPMENT

- Organisms grow by producing more cells and by cell enlargement



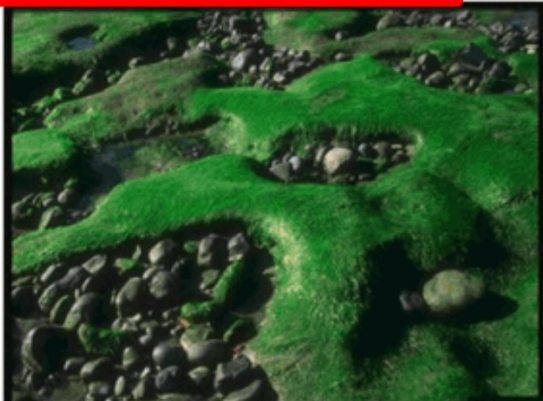
Characteristics of Life

- 4. Organisms use **ENERGY**



4. USE ENERGY

- Organisms convert food to energy.
- **Producers/Autotrophs**- are organisms who can make their own food
- **Consumers/Heterotrophs**- are organisms who cannot make their own food and use another organism for energy.



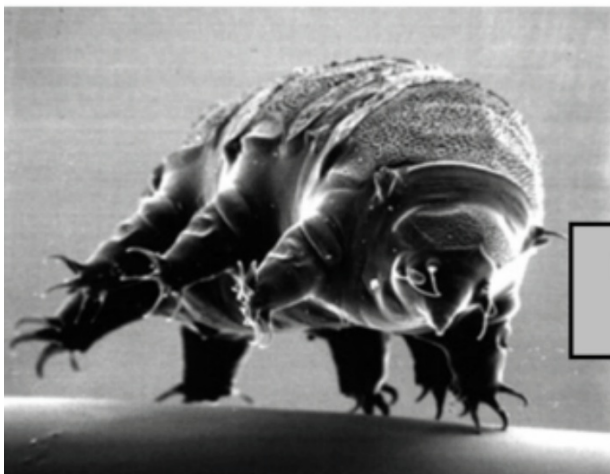
Characteristics of Life

- 5. **Organisms respond to their environment (or stimulus).**

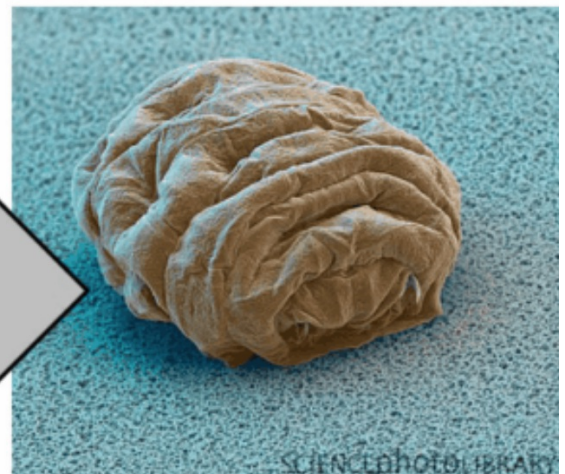


5. RESPOND TO THE ENVIRONMENT

- Organisms respond to temperature, water, food supplies, predators, touch, chemical signals, etc. in order to survive and reproduce.



Dries out and
turns into



Examples of responding to their **external** environment.



Octopus camouflage



Plants growing against gravity

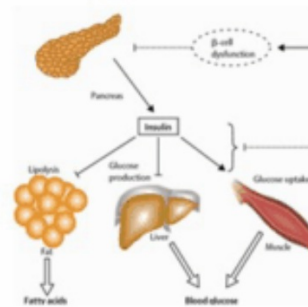


Releasing a hot pan

Examples of responding to their **internal** environment.



Sweating to cool down



Releasing Insulin to control blood sugar

Homeostasis: Organisms work to maintain a stable internal environment

Characteristics of Life

- 6. **Populations of organisms change over time (evolve) to adapt to their surroundings.**



6. CHANGE OVER TIME

- **Groups of organisms (NOT INDIVIDUALS)** change over time
- Fossil records show changes in groups of organisms

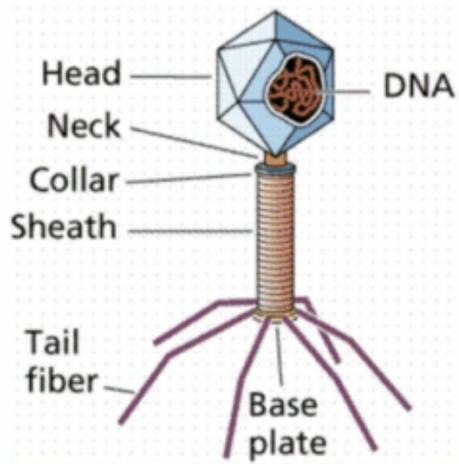


ORGANISMS MUST POSSESS **ALL** OF THE CHARACTERISTICS OF LIFE

- *Not all of the characteristics can be easily observed*
- All six characteristics must be possessed, but **not necessarily at the same time.**
 - Example: A baby elephant is alive, but it is not able to reproduce.



WHAT ABOUT THESE?



Go Back to Your Warm Up Sheet

Now that you have learned about the characteristics of life, list your final answers

Wednesday

Stamp:

Question:	Question:
Answer:	Answer:
Question: Final list of living... Pumpkin Seed	Question: Final list of non living...
Answer: Oak Tree Bacteria	Answer: Fire Water

Mrs. McGaffin

