

Agenda

Update Your TOC

1. Assign HW - Finish lab questions by Tues 9/10
2. Characteristics of Life Lab (TOC#3)
3. Characteristics of Life Notes (TOC#2)

TOC: Unit 1 - Characteristics of life and The Cell

- 4. ASSIGNMENT: **Video** of the Characteristics of Life (PDF, Webpage)
- 3. NOTES: Characteristics of Life (CLOZE, Complete)
- 2. LAB: Characteristics of Life (DOC)
- 1. ASSIGNMENT: Letter to the teacher (directions)

Homework - Oh Boy!

5. Finish the Characteristics of Life lab. If unfinished in class

4. Due Tuesday 9/10 - Read and take notes on ONLY THE HIGHLIGHTED WORDS for this reading - here is the link.
http://www.k12.org/curriculum/Florida/units/7thGrade/Characteristics_of_Life/Unit_1/Char11/

- Consider this a first pass at the material - we are just looking at the big picture now, we will address a 2nd pass.
- Remember "How to read a textbook"

Table of Contents	
1. Cell Structure	An overview of specific structures found in plant cells.
2. Cell Membrane: Phospholipid Bilayer	Describes the structure and function of the plasma membrane.
3. Cell Wall	Describes the structure and function of the nucleus.
4. Biomolecules and Macromolecules	Describes the structure and function of molecules and macromolecules.
5. Other Cell Organelles	Covers the structure and function of the endoplasmic reticulum, Golgi apparatus, lysosomes, vacuoles, and centrioles.

Warm-Up

Warm Up 9/17/2012*

What Does a Scientist Look Like?*

Overview

The 7 Characteristics of Life:

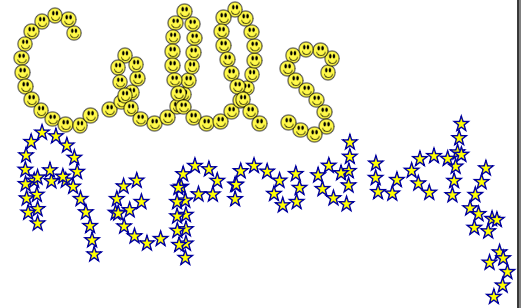
1. Living Things are Composed of Cells: *Cells plant*
2. Living Things Have Different Levels of Organization:
3. Living Things Use Energy:
4. Living Things Respond To Their Environment:
5. Living Things Grow:
6. Living Things Reproduce:
7. Living Things Adapt To Their Environment:

① Hypothesis

What: Do you need
all 7)
Energy
Response
grow
Repro
Adapt
Survive

② ~~Which is hard to see?~~

ADAPT



Exp

- ① Question
- ② Research
- ③ Hypothesis
- ④ ^{observe} Data procedure
- ⑤ Conclusion

Reproduction

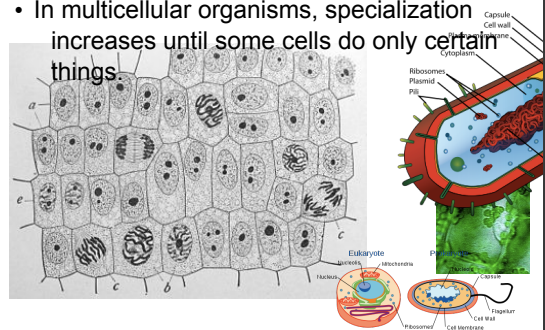
- ① Q: Do living things reproduce?
 - ② Research
 - ③ Hypothesis: is Repro. necessary for life?
 - ④ observe
- Data: pic.
 for at least necessary

4) all scientists agree
no most.

The 7 Characteristics of Life:

1. Living Things are Composed of Cells:

- Single-cell organisms have everything they need to be self-sufficient.
- In multicellular organisms, specialization increases until some cells do only certain things.

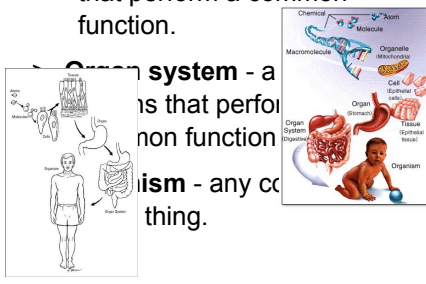


2. Living Things Have Different

Levels of Organization:

- Both molecular and cellular organization.
- Living things must be able to organize simple substances into complex ones.
- Living things organize cells at several levels:

- > **Tissue** - a group of cells that perform a common function.
- > **Organ** - a group of tissues that perform a common function.



system - a group of organs that perform a common function.
ism - any cell or tissue that performs a specific function.

3. Living Things Use Energy:

- Living things take in energy and use it for maintenance and growth.

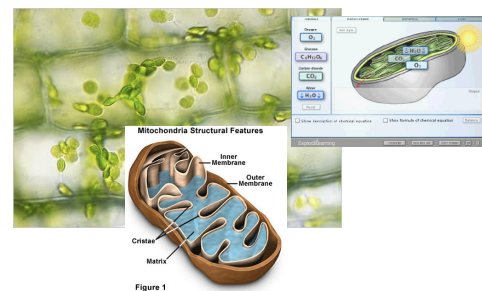


Figure 1

4. Living Things Respond To Their Environment:

- Living things will make changes in response to a stimulus in their environment.
- A behavior is a complex set of responses.

Quick

5. Living Things Grow:

- Cell division - the orderly formation of new cells.
Cells come from other cells
- Cell enlargement - the increase in size of a cell. Cells grow to a certain size and then divide.
except RBC
- An organism gets larger as the number of its cells increases



6. Living Things Reproduce:

- Reproduction is not essential for the survival of individual organisms, but must occur for a species to survive.
- All living things reproduce in one of the following ways:
 - > Asexual reproduction - Producing offspring without the use of gametes.
 - > Sexual reproduction - Producing offspring by the joining of sex cells.

Sexual vs Asexual
 need partner without partner
 Alexandra

7. Living Things Adapt To Their Environment:

- Adaptations are traits giving an organism an advantage in a certain environment.
- Variation of individuals is important for a healthy species.

long time
 Many generations

Questions:

1. Do all living things have all of the characteristics of life? If your answer is no, give an example.
2. Name some non-living thing that uses energy.
3. Name some non-living thing that grows.

The 7 Characteristics of Life VIDEO Assignment

