

**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)

Lab Questions - Did you make an effort?

① Hypothesis:  
 What: Repro/level a growth  
 atoms/Resp  
 → Do you have to have all 7 to be alive?

② Which characters were hard to observe?

- ① Reproduction
- ② Adapt
- ③ Levels of organization

③ EXP. Growth: ⑤ Data analysis  
 ① Question ⑥ Condition #3 plants grow  
 ② Research  
 ③ Hypothesis - living things grow  
 ④ Data collection (observe)  
 or (2) 1 2 3 4

4) all scientist agree

~~opinion~~  
 opinion

Overview

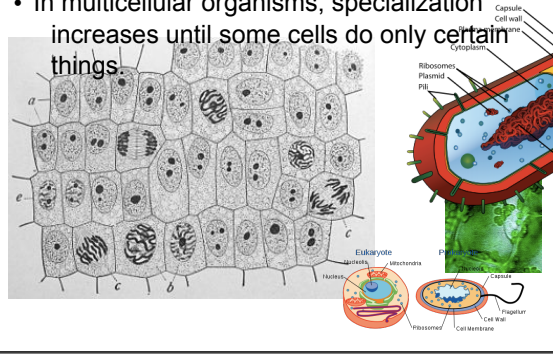
The 7 Characteristics of Life:

	alive?	NO	YES
1. Living Things are Composed of Cells:			
2. Living Things Have Different Levels of Organization:	1) <input checked="" type="checkbox"/>	2) <input checked="" type="checkbox"/>	3) <input checked="" type="checkbox"/>
3. Living Things Use Energy:	4) <input checked="" type="checkbox"/>	5) <input checked="" type="checkbox"/>	6) <input checked="" type="checkbox"/>
4. Living Things Respond To Their Environment:	7) <input checked="" type="checkbox"/>	8) <input checked="" type="checkbox"/>	9) <input checked="" type="checkbox"/>
5. Living Things Grow: quick	10) <input checked="" type="checkbox"/>	11) <input checked="" type="checkbox"/>	12) <input checked="" type="checkbox"/>
6. Living Things Reproduce:	13) <input checked="" type="checkbox"/>	14) <input checked="" type="checkbox"/>	15) <input checked="" type="checkbox"/>
7. Living Things Adapt To Their Environment: slow/many grow	16) <input checked="" type="checkbox"/>	17) <input checked="" type="checkbox"/>	18) <input checked="" type="checkbox"/>

**The 7 Characteristics of Life:**

**1. Living Things are Composed of Cells:**

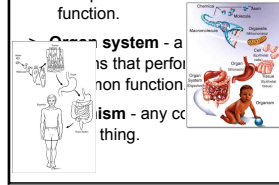
- Single-cell organisms have everything they need to be self-sufficient.
- In multicellular organisms, specialization increases until some cells do only certain things.



**2. Living Things Have Different**

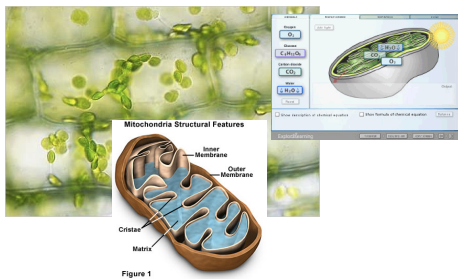
**Levels of Organization:**

- 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.



**3. Living Things Use Energy:**

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



**4. Living Things Respond To Their Environment:** Quick

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

**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.

Alexandra  
Adam

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

Zannie's Science Page:  
Welcome TMS Class of 2017!

HOME | BIOLOGY 12-14 | PHYSIOLOGY 12-14 | BIOLOGY 12-14 | PROJECTS | MORE...

**Video Assignment:**

Characteristics of life

Students will watch a video of 7 of the 7 characteristics of life. Complete with an idea of their own.

1. Choose a video to watch.
2. Plan a Leaf!
3. Share video in class - Video should be no longer than 5 minutes.

[Assignment & Rubric](#)

**Story Boards**

Plan | Web Notes

**Resources:**

1. Great Video about using only one resource - Link
2. How to make a good presentation - Link

