Living Things

Characteristics of Life

What do you already know about living things?

- What does it mean to be “living”?
- What must living things have/be able to do?
- How can we tell living things from non-living?
- Are YOU a living thing? WHY???
- *Discuss with your table and be ready to report out!!!*

We already know living things….

Let's learn what it means to be "LIVING" from MS. NERG!

1

All living things are

MADE OF CELLS

Made of cells

- What does this mean??? What are “cells”?
- Discuss & share at your tables!

- Organisms may be made of ONE (single –celled) or MANY (multi-cellular) cells!
- ANY LIVING THING is called an "*organism*"

2

All living things are

SENSITIVE

Sensitive

- What does this mean??? How are YOU "sensitive"?
- Discuss & share at your tables!

- Sensitive to (react to) changes in their environment

They respond to a stimulus

It gets cold or rainy….you wear a coat!

It gets hot…dogs shed!

Winter comes….bears hibernate! Etc!!!

3

All living things need

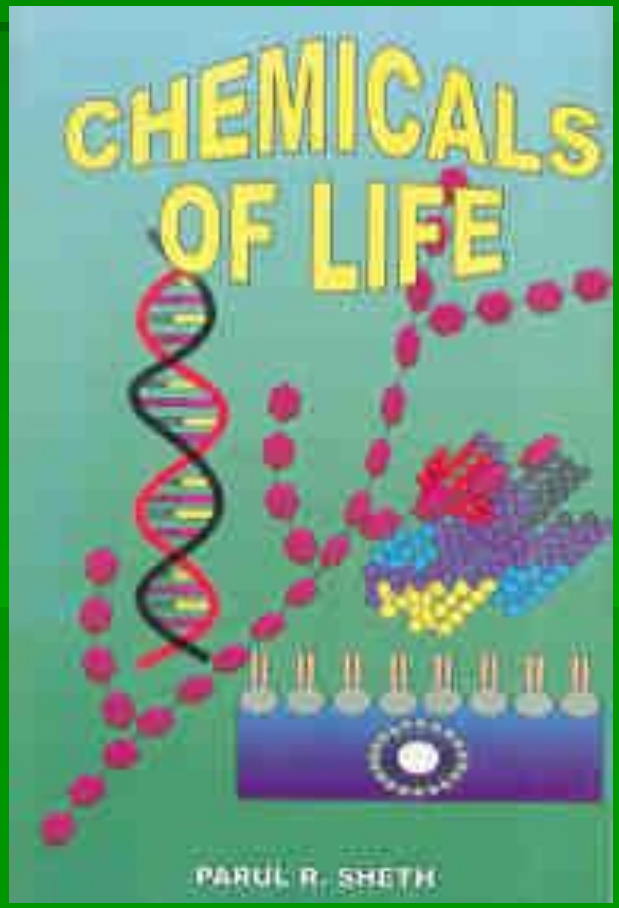
NUTRITION

Nutrition

- What does this mean??? How do **you** get “nutrition”?
- Discuss & share at your tables!

Get "nutrition" from the Chemicals of Life

- Water
- Carbohydrates
- Lipids (ex. Fats)
- Proteins
- Nucleic Acids (ex. DNA)



4

All living things use

ENERGY

Energy

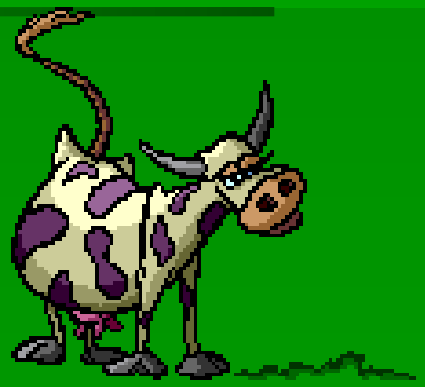
- What does this mean???
  - How do you use energy?
  - When do you use energy?

- Discuss & share at your tables!

- Energy is needed to work
  - Your lungs breathing & heart beating IS WORK!

- Animals get energy from their food (plants and other animals)

- Green plants get energy from sunlight



5

All living things

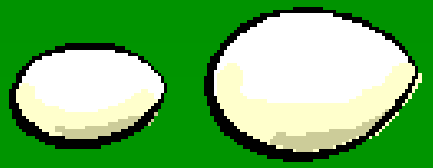
REPRODUCE

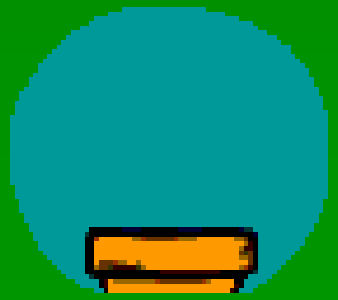
Reproduce

- What does this mean??? Why is it important to a species of living things?
- Discuss & share at your tables!

- Create offspring (children) similar to parents

This is the next generation for the species!!!





6

All living things

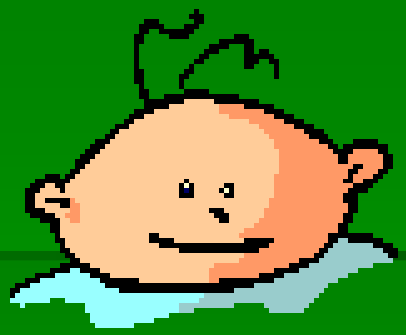
GROW and DEVELOP

GROW and DEVELOP

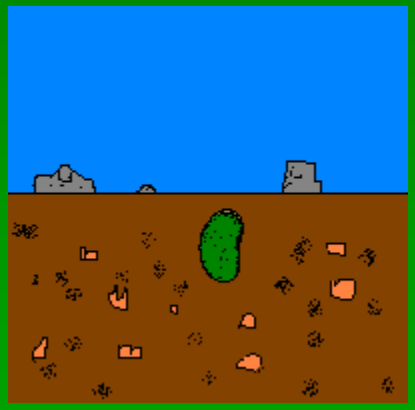
- What does this mean?
- How does this happen?
- When have you seen this?

- Discuss & share at your tables!

- They become larger and more complex!



  - Babies grow into adults.
  - Seedlings grow into plants.
  - Spores grow into fungi



Use the first letter from each process to help you remember them.

Made of cells

Sensitive to changes in environment

Nutritional needs

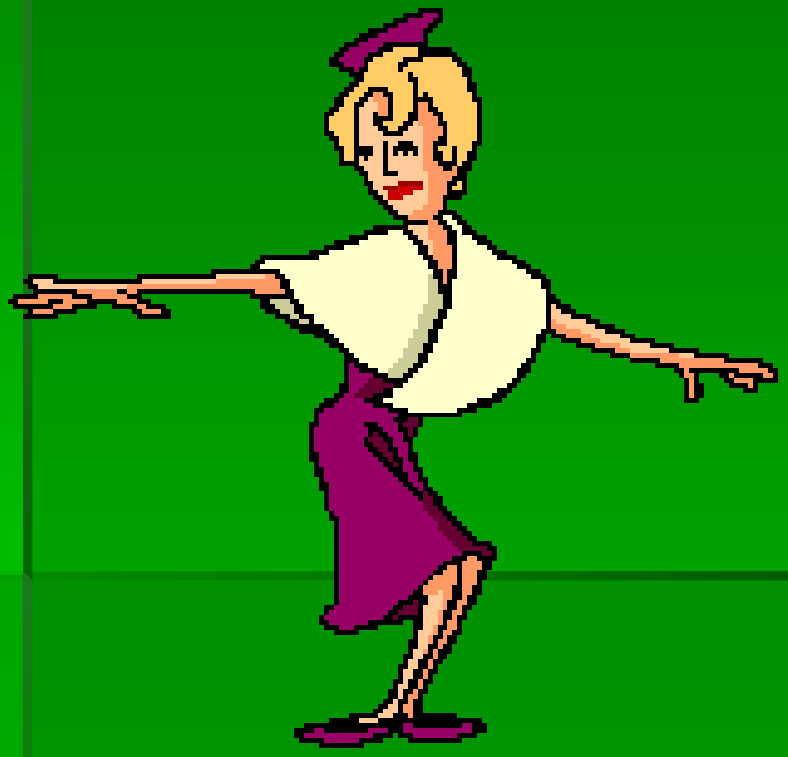
Energy use

Reproduce

Grow and develop

They spell MS. NERG

This is MS. NERG !



Can you remember what each of the letters in her name stand for?

Talk to your neighbor and be ready to report out!!!

Made of cells

Sensitive to changes in surroundings

Nutritional needs

Energy use

Reproduce

Grow and develop

Let's Take it Another Step…

- What Am I??

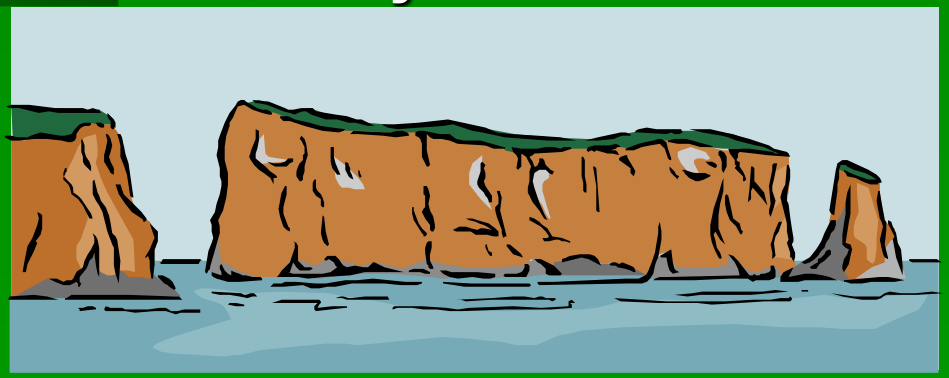
Concept Attainment Activity

Let's Take a Deeper Look…

- What do you think ALL the "Yes" items could be called?
- What do you think ALL the "No" items could be called?
- Let's watch quick video to see if we can catch some key new terms! ☺

Vocabulary — add to your final notes!

- **Biotic:** organism or object that **is** alive (crab, fish, etc), **was once** alive (paper, pencil, etc), or is a **product** of a living thing (seashell, etc) !
- **Abiotic:** man-made (pipe, phone, car, etc) or Earth-made (rock, ocean wave, etc) object that was never alive!



Vocabulary — add to your final notes!

- **Ecology:** the scientific study of the relationships between the living things (organisms) and their environments (biotic & abiotic).

  ******Everything depends on everything******

- **Living vs. Non-living vs. Dead**

Now Let's Apply our New Knowledge…

BIOTIC OBJECT (Give an example of something biotic that we don't normally think of as a living thing.)	ORIGIN (Tell where the object came from that makes it biotic)
1. My Tee Shirt	1. Cotton from a plant
2.	2.
3.	3.
4.	4.
5.	5.