Science, Engineering, Technology & Math

Tree Of Life

Class Structure

What is the Tree Of Life? Where do we fall into the kingdom's of the Tree of Life? Tune in to find out!

Week #1:

- What is the Tree Of Life
- Build Your Tree

Week #2:

- Kingdoms: Plantae, Animalia, Fungi, Eubacteria, Protista and Archaebacteria

Week #3:

- Eubacteria, Protista and Archaebacteria

Week #4:

- Fungi

Week #5:

- Plants

Week #6:

- Animalia

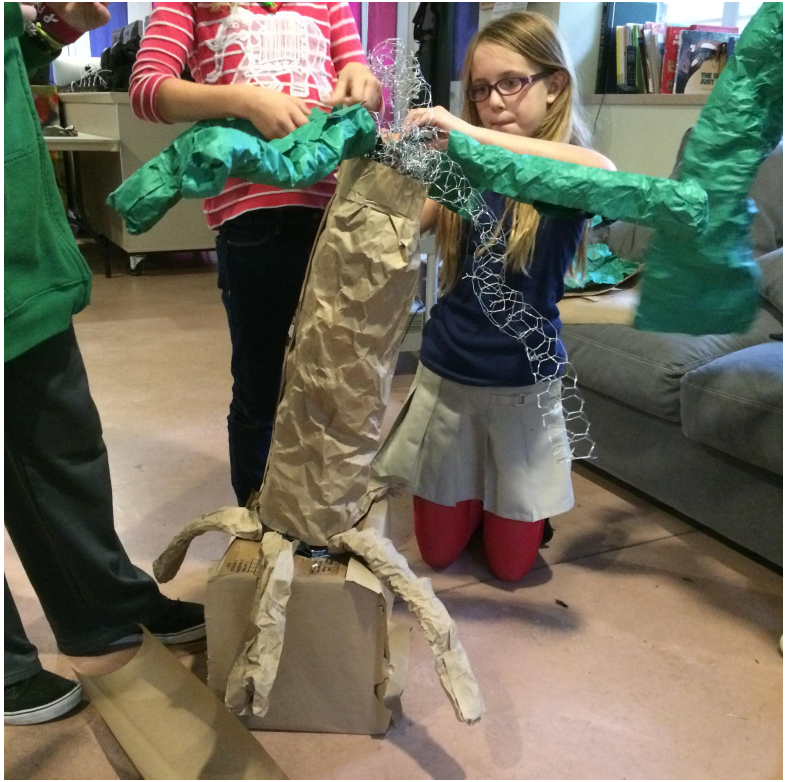
Week #7: Finish-up all projects

What do you see?

Week #1: *What is the Tree of Life?*

Tree of Life: Charles Darwin's idea of the 'Tree of Life' is a way to describe the evolutionary relationship between all living things on earth.

Build Your Tree



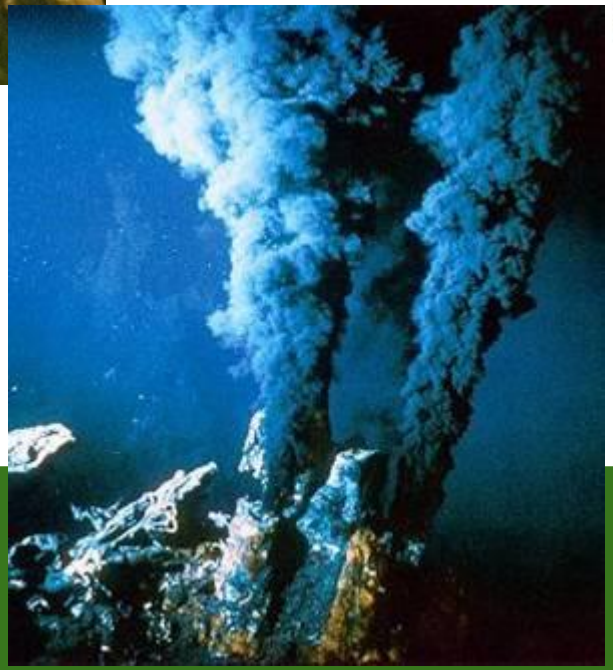
What are the Kingdoms?

Plantae, Animalia, Fungi, Eubacteria, Protista and Archaebacteria

- Archaebacteria (root of the tree): Lives in harsh conditions and they are the oldest and smallest.
- Eubacteria (higher root of the tree): Old and small, but they live in normal conditions.
- Protista (higher root of the tree): Can be single cells (diatoms; live in the ocean) or many cells (like algae).

Protista

Archaebacteria



Eubacteria

Can you guess which is Archaebacteria, Eubacteria and Protista?

Plantae, Animalia, Fungi, Eubacteria, Protista and Archaebacteria

- Fungi (middle of tree): Non-motive, reproduces by spores and some are decomposers (example: mushrooms, ringworm and yeast).
- Plantae (one half of tree top): photosynthesis, have a nucleus and cell wall (example: ferns, oaks, mosses and flowers).
- Animalia (one half of treetop): Have nerve cells (they can feel pain), motile and multicellular (examples: jellyfish, worms, insects, frog, snakes and birds).

Can you guess which is the Fungi, Plantae and Animalia?

Fungi

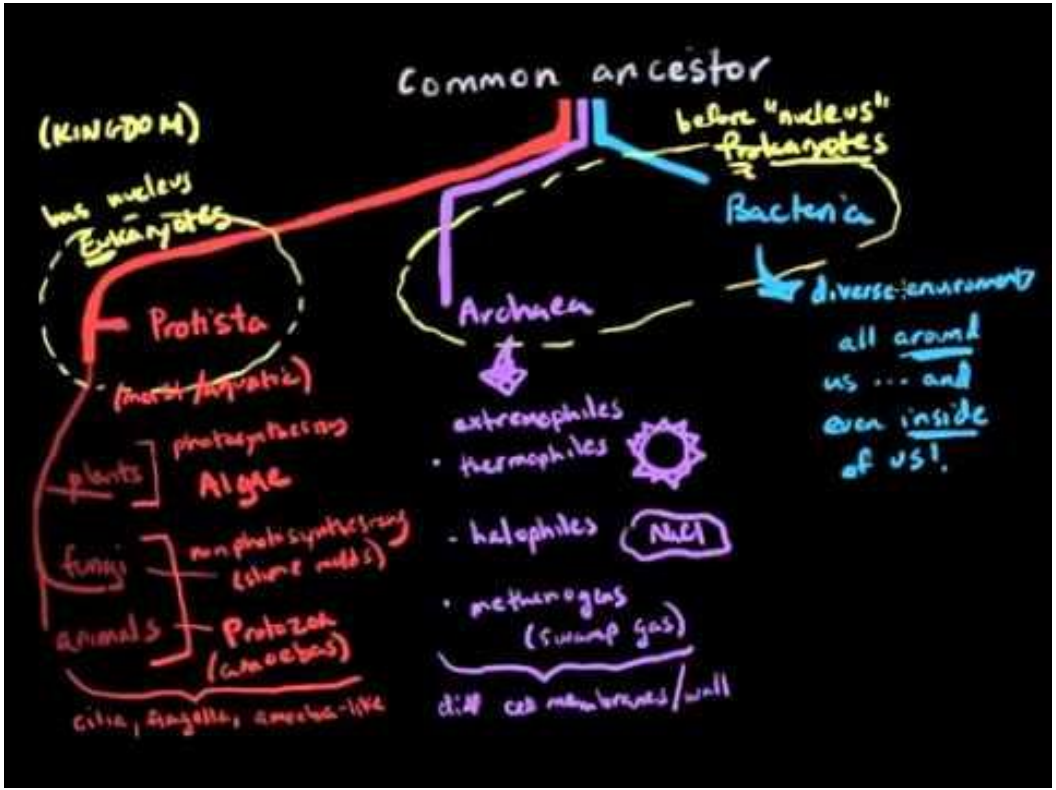
Plantae

Animalia

Creative Challenge:

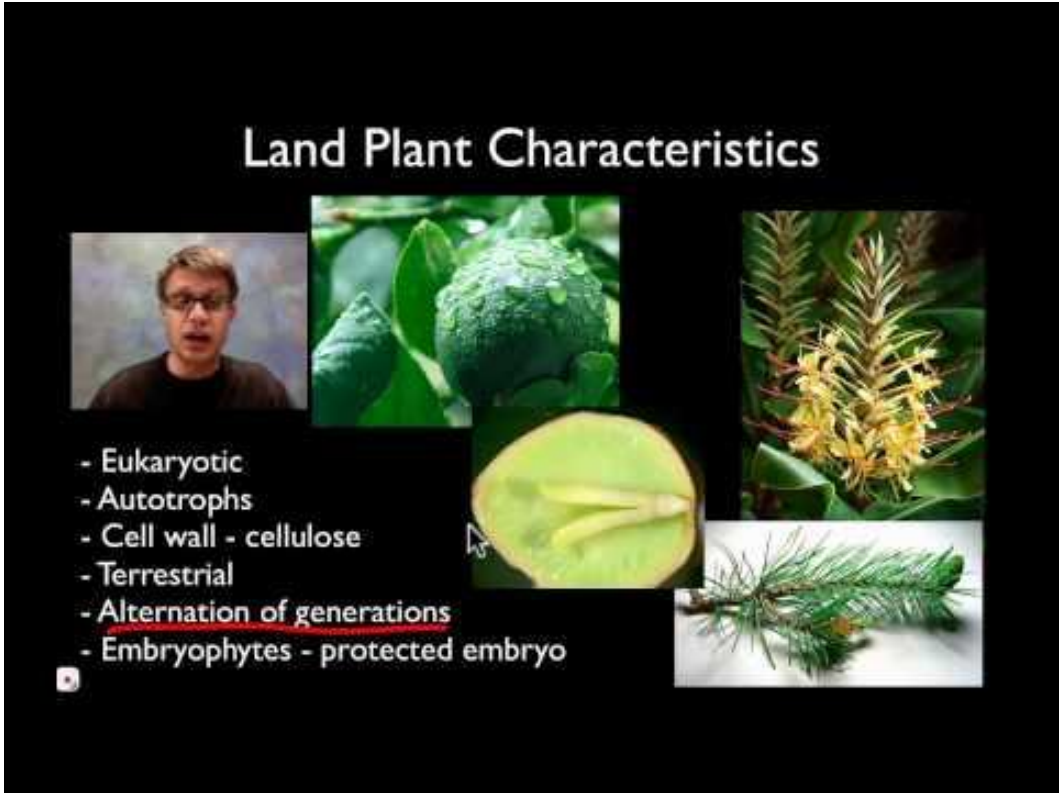
It is really fun to learn about different kingdoms around the world. But do you know what is living in your own habitat?

Can you find an example of each kingdom?

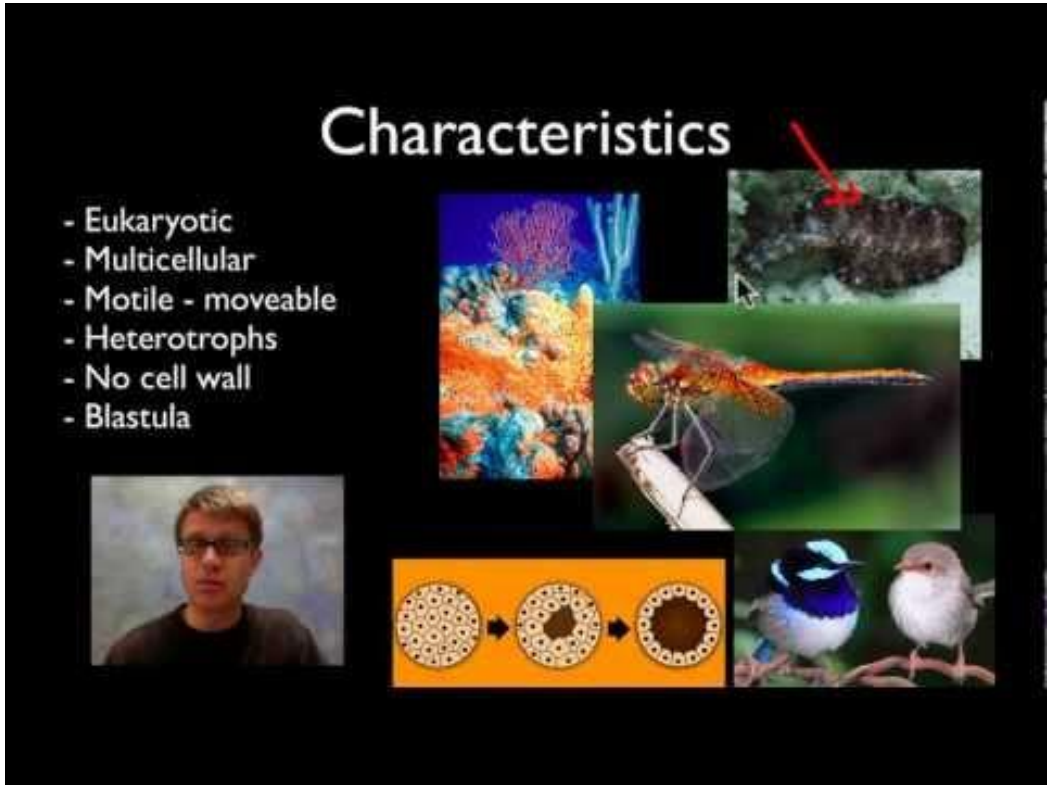


Week #3: Eubacteria, Protista and Archaebacteria

Week #4: *Fungi*



Week #5: *Plantae*



Week #6: Animalia

Week #7: *Wrap up any projects*

Materials & Supplies

- Chicken Wire
- Medium size cardboard box
- Brown paper mache
- Green paper mache

Pro Tips by Gentry Holbrook

- This is a great activity that is S.T.E(a).M based. It is easy to follow along and for the kids to understand. Incorporate art into the project so it is more hands on.
- If you let them build the tree the entire time, it will take more than two classes (roughly two weeks). Take just the first week with them to build the tree after that, you can work on it during class prep time before the program starts.

Resources:

- http://tolweb.org/tree/home.pages/aboutoverview.html
- http://teacherweb.com/TN/MEMPHIS/KRISHNAN/apt15.aspx
- http://www.wellcometreeoflife.org
- http://www.dailygalaxy.com/my_weblog/2010/08/life-at-11000-meters-below-the-sea.html
- https://cindydyer.wordpress.com/2008/10/
- http://kdhellner.tripod.com/id11.html
- http://www.rbge.org.uk/whats-on/event-details/1367
- https://howtounderground.wordpress.com/category/uncategorized/
- http://www.pondalgaesolutions.com/pondweedrakes.html
- Bozeman Science- YouTube