



**Science, Engineering,
Technology & Math**

Futurama

Created by: John Lyman

- *Class created: 06/11/2017*
- What will the world look like when our participants inherit it?
- What will their daily lives look like?
- What kind of jobs will they have? Will there be jobs?
- What does transportation, healthcare, and daily life look like?
- Let's explore 2037.

Utah Core Standard Connection

Classify living and nonliving things in an environment.

Identify characteristics of living things (i.e., growth, movement, reproduction).

Identify characteristics of nonliving things.

Classify living and nonliving things in an environment.

Describe the interactions between living and nonliving things in a small environment.

Identify living and nonliving things in a small environment (e.g., terrarium, aquarium, flowerbed) composed of living and nonliving things.

Predict the effects of changes in the environment (e.g., temperature, light, moisture) on a living organism.

Pose a question about the interaction between living and nonliving things in the environment that could be investigated by observation.

<http://www.uen.org/core/>

Grant Outcomes

Academic Success

This class teaches sociology, the development of different living organisms, and how they interact with each other.

https://educationendowmentfoundation.org.uk/public/files/Publications/EEF_Lit_Review_Non-CognitiveSkills.pdf

Non-Cognitive Success

Perseverance, Self-Control

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: Jobs

- Introduction

Week #2: Transportation

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Week #3: Housing

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Week #4: Technology

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Week #5: Medicine

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Week #6: 2057

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Week #7: Predictions

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Week #8: Presentations

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What do you see?

Week #1: *Jobs*



Future Jobs:

Build Your Tree

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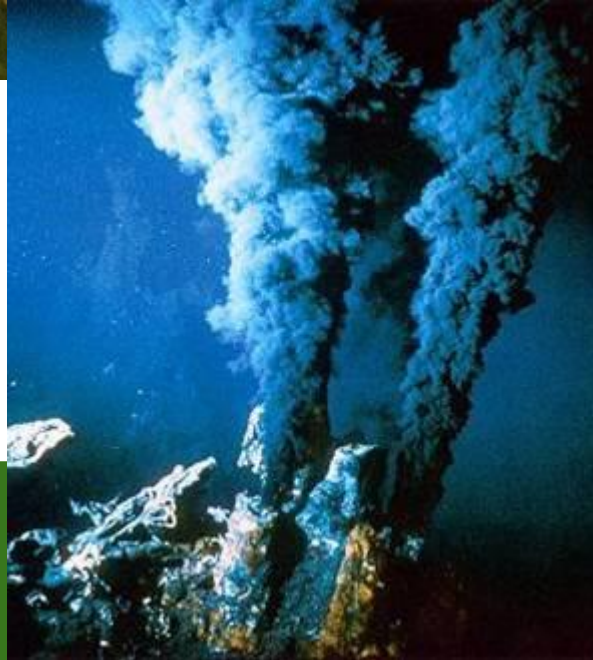
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Week #2: *Transportation*



Protista

Archaeobacteria



Eubacteria

**Can you guess
which is
Archaeobacteria,
Eubacteria and
Protista?**

Plantae, Animalia, Fungi, Eubacteria, Protista and Archaeobacteria

- 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

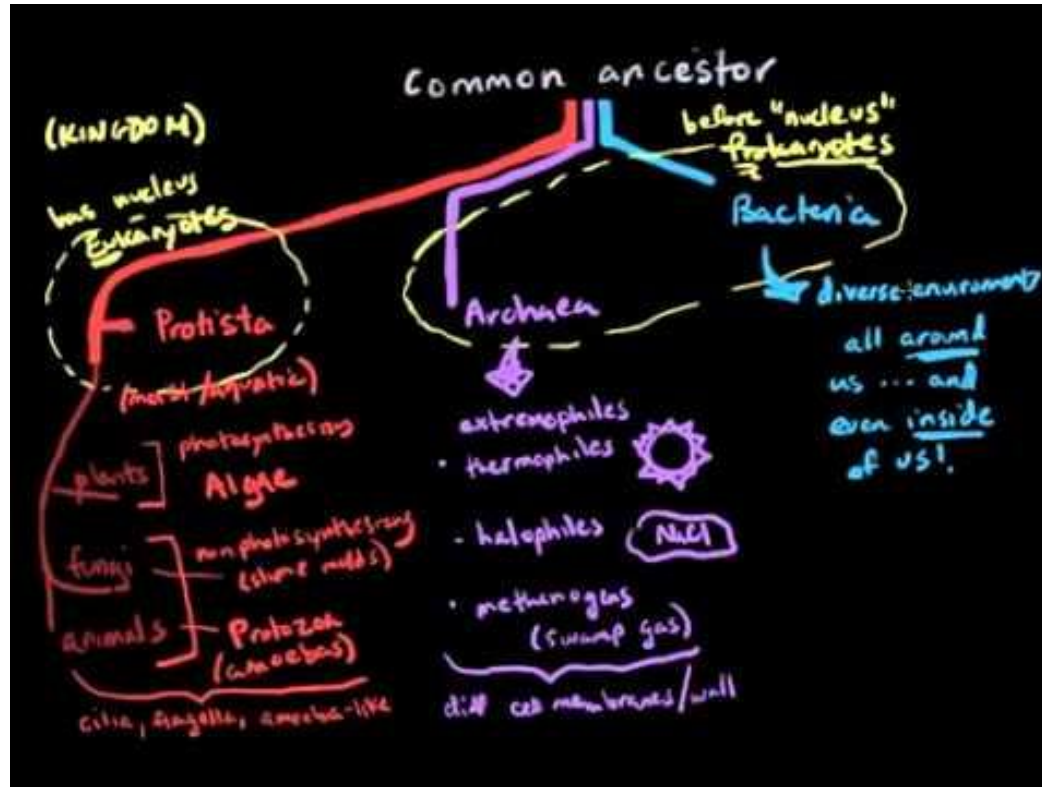


Animalia

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 Archaeobacteria



Week #4: *Fungi*

Land Plant Characteristics



- Eukaryotic
- Autotrophs
- Cell wall - cellulose
- Terrestrial
- Alternation of generations
- Embryophytes - protected embryo



Week #5: *Plantae*

Characteristics

- Eukaryotic
- Multicellular
- Motile - moveable
- Heterotrophs
- No cell wall
- Blastula



Week #6: Animalia

Week #7: *Wrap up any projects*



SOL Videos/Activities





Materials & Supplies

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

Local Connections

SLC zoo

Greenhouses

Peace Gardens

Global Connections

This class talks about the interaction of all species. Discussion of different biomes brings up many different nations and how that changes how they live.

Career Connections

Environmental Scientist

Microbiologist

Sustainability Consultant

Botanist

Wildlife Forensics Worker

What Power of One ideals does your class connect with? And why is it important to your class?

Stewardship: the job of supervising or taking care of something, such as an organization or property.

Curiosity: a strong desire to know or learn something.

Compassion: sympathetic pity and concern for the sufferings or misfortunes of others.

Resilience: the capacity to recover quickly from difficulties; toughness.

Power of One

Real World Connections

- Does your class improve:
- Academic Success?
- Improve social skills?
- Health and Well Being?
- Decrease Risky Behaviors?
- Improve non-cognitive skills?
 - https://educationendowmentfoundation.org.uk/public/files/Publications/EEF_Lit_Review_Non-CognitiveSkills.pdf

Pro Tips by John Lyman

- 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:

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