Classification &
Change-Over-Time

Science 8   April 2018   Mrs. Plyter   plyter.com/science

Name   Period

Thu   Fri

Points
Objective

Plant Collection

Paper Mouse Lab

Moths & Finches

NOVA Evolution Lab

2

Plant Collection
_____

Paper Mouse Lab
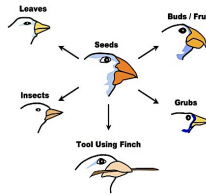Change-Over-Time
_____

4

5

6

Charles Darwin
found different species of Finches during his travels to the Galapagos Islands in the 1830's.
He identified birds that were very similar, except for their beak. There is _evidence_ that volcanic activity had divided their island and that the original finches were divided into new populations on the different islands with different plants to eat.
The variation in beaks is _evidence_ that the birds best able to eat lived, reproduced and passed on their traits.
Tiny variations, or _change over time_, led slowly to beaks "designed" for the food available.

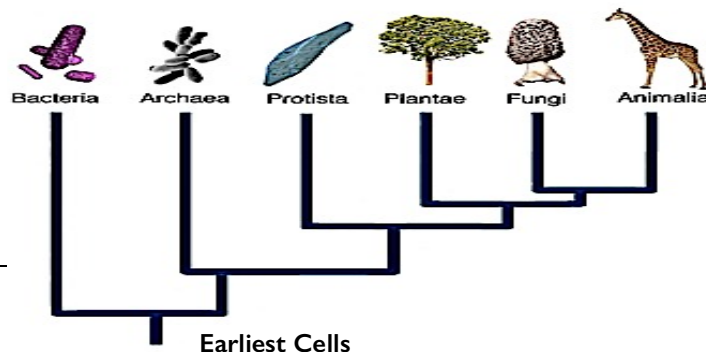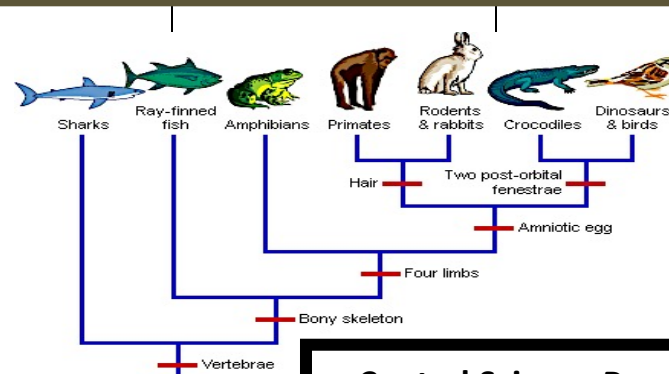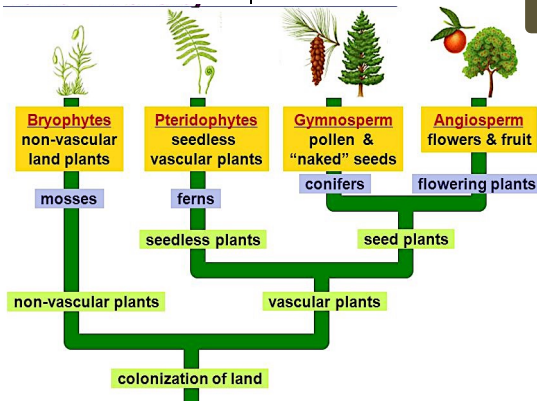### Change Over Time—
Evolution means the **CHANGES** that occur in a specific population **OVER** an extended period of **TIME**. **Evolution is a scientific theory**, meaning it is an explanation supported by overwhelming **evidence**. Scientists study **evidence** before and after developing **hypotheses** and then **theories**. They continue to study evidence to refine hypotheses and **theories**. **Evidence** is what Scientists do. Studying **evidence** and forming hypotheses is what we all do.

Calendar
Front & Back
1) ←Highlight or Underline important terms.
2) ←Add Invertebrates with branched line(s).
3) ←Connect Classification Trees with arrows.
4) Fill in Blanks→.

Quiz Points
Initial in Color_____

Mon   _____
Tue   _____
Wed   _____
Thu   _____
Fri   _____

Total_____

Bryophytes non-vascular land plants | **Pteridophytes** seedless vascular plants | **Gymnosperm** pollen & "naked" seeds | **Angiosperm** flowers & fruit

mosses | ferns | conifers | flowering plants

seedless plants | seed plants

non-vascular plants | vascular plants

colonization of land

Sharks | Ray-finned fish | Amphibians | Primates | Rodents & rabbits | Crocodiles | Dinosaurs & birds

Hair | Two post-orbital fenestrae

Amniotic egg

Four limbs

Bony skeleton

Vertebrae

Bacteria | Archaea | Protista | Plantae | Fungi | Animalia

Earliest Cells

Central Science Page
www.plyter.com/science
Have Screen Check, Screenshot or Photo.
Life Science→
Peppered Moths…

	Forest Light	Dark
Light Moth	____%	____%
Dark Moth	____%	____%
		_____

Darwin's Finches…   _____

NOVA: The Evolution Lab (Play Game)
Mission 1 _____ 2_____ + _____

1. Mitosis_____
2. Meiosis_____
3. 1 Parent_____
4. 2 Parents_____
5. Clone_____
6. Identical to Parent_____
7. Variation_____
8. Blended _____
9. Sex Cells _____

N = # of Chromosome Pairs

10. 1N + 1N = 2N _____

       2N = 2N _____

Match
Write meaning of the **prefix**.

Word List:
self, same, different, different, without, life,
before(first), again, center(nut), new(true)

11. a-sexual

_____ combining of DNA

12. hetero-troph

_____ feeding

13. homo-zygous

_____ genes for a trait

14. auto-troph

_____ feeding

15. re-cycle

_____ use

16. vari-ation

_____ of traits

17. bio-mass,

_____ material

   bio-logy

_____ study

18. nuc-leus

_____ part

19. pro-karyote

_____ nucleus

20. eu-karyote

_____ nucleus

OBJECTIVE:

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Classification, or Taxonomy, of Living Organisms

Bacteria   Archaea   Protists   Plants   Fungi   Animals

Domain Bacteria   Domain Archaea   Domain Eukarya

Earliest cells

Archaebacteria	Eubacteria
• Do not have nuclei, can be found in deep ocean vents • All are single celled organisms (Extremophiles). • Form yellow rings around hot springs where temperatures are 90 degrees Celsius (194 degrees F)	• Do not have nuclei, some cause disease • Escherichia coli (E. Coli) • Prokaryotes that may be found in the human body • All are single celled organisms
Protista	**Fungi**
• All eukaryotes that are not plants, animals or fungi • Most are single celled organisms (Protozoans) • Algae • Mostly microscopic and live in water	• Break down materials outside their bodies and then absorb the nutrients • Mushrooms • Molds
Plantae	**Animalia**
• Use sun's energy to make sugar • Usually green • Pine Trees	• Complex organisms with no cell walls • Have specialized sense organs

OBJECTIVE:

Demonstrate an understanding of the classification of living things and how natural selection results in the evolving of traits, or Change-Over-Time, by collecting and classifying a variety of plants and by participating in, and graphing the data of, an environmental change simulation.