6th Grade Science 8/24/16

Bell work:

Get out your necessary supplies and your signed syllabus...
then, to signal that you are ready, read your book!

<u>Get out a sheet of paper and write your name on it.</u>

Then write down the following questions, leaving space for you to answer.

1. How do you get a giraffe into a refrigerator?

2. How do you get an elephant into a refrigerator?

3. The Lion King is having a meeting and has invited every animal on Earth to the meeting. What animal does not show up?

4. There is a lake full of angry crocodiles and you need to get across to the other side. How do you do it?

Write down the following questions, making sure that you skip 3 lines between questions.

What is the big idea?

What are the 4 major systems of Earth?

How does the Earth gain and lose energy?

What are ecosystems?

What is the big idea?

Earth is a complex system of interacting rock, water, air, and life

What are the 4 major systems of Earth?

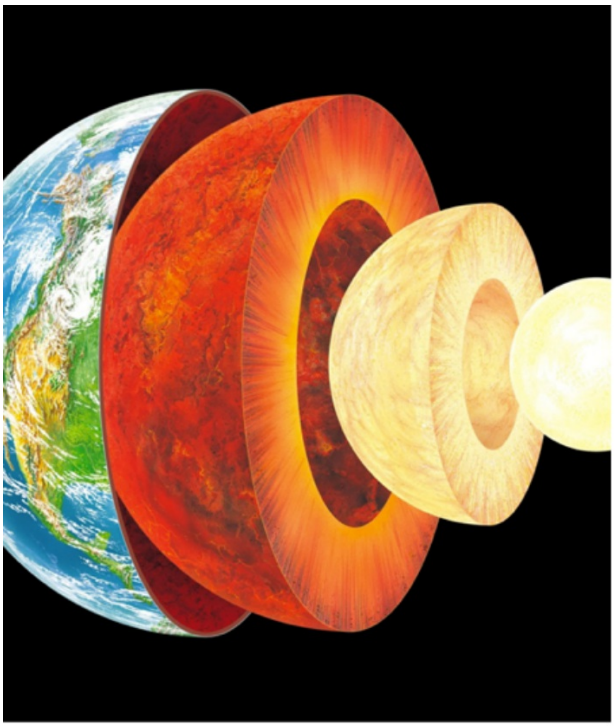
Geosphere— metallic core, rock, molten rock, soil, sediment
Hydrosphere— water on earth in all its forms
Atmosphere—gas surrounding the earth
Biosphere— Earth's living things

How does the Earth gain and lose energy?

The sun's incoming radiation, loses heat into space

What are ecosystems?

regions where organisms actively interact with each other and their environment.



Next we will be taking a look at the layers of the earth so that we can start to investigate how the Earth's crust moves and evolves, which also shapes the biosphere.

Objective:

- To learn about the layers of Earth

Video: Earth in a Nutshell

- https://www.youtube.com/watch?v=JGXi_9A__Vc
    - During the movie, in your science notebook, write down one interesting thing about each layer of the earth
        - Crust
        - Upper Mantle
        - Mantle
        - Outer Core
        - Inner Core
- Beneath our Feet: The Four Layers of Earth
    - We will read this together and answer the questions as a group.
- After that, we will color a cross section of the Earth.

Foldable

- Today we will be working on a foldable of the Earth's layers
- http://www.learner.org/interactives/dynamicearth/structure.html
- Step 1: color the 4 layers
  - Inner Core: red
  - Outer Core: red-orange
  - Lower Mantle: Orange
  - Middle Mantle: Light Orange
  - Upper Mantle: Yellow
  - Oceanic Crust: Dark brown
  - Continental Crust: light brown
  - Ocean: Blue

Foldable

- Next, fill out the small squares with he information for each of the main layers of Earth.
    - Crust:
        - Composition: rocks, soil, seabed.
        - Thickness: 5 to 25 miles
        - State of matter: solid
    - Mantle:
        - Composition: solid rock, molten rock, solid rock
        - Thickness: 1,800 miles
        - State of Matter: both solid and molten
    - Inner Core:
        - Composition: Iron and other minerals
        - Thickness: 900 miles
        - State of Matter: Solid
    - Outer Core:
        - Composition: Iron and Nickel
        - Thickness: 3,000 miles
        - State of Matter: molten metal

Foldable

- Next, cut out Earth's layers, including the 4 squares and 12 labels.
- For the next several steps, it is going to be VERY important to not go ahead! If you finish early, help your neighbor!

Foldable

- Paste the “Earth’s Layers” title in the top left corner of the paper.
- Paste the Crust on the top of the first blue paper, to the left of center on the page
- set the 2nd piece of paper on top of the first, close to the bottom of the crust.
- Paste the Mantle on the 2nd piece of paper.
- line up the paper and fold up the bottom of the paper to 1/4 in below the bottom of the mantle. Then fold up the bottom blue paper up about 1/4 inch from the bottom of the blank paper. Staple
- Paste the Outer Core on the 3rd lap down
- Paste the Inner Core on the bottom flap. Paste the Inner Core information square to the left of the inner core.
- Paste the three other squares inside the flaps on the corresponding layers.