7th Grade Science

Choice Board #3

Hands-On Labs

Bubbleology

Think of the last time that you were blowing bubbles. What tool did you use to blow the bubbles? Could you blow bubbles with other items? Which of these tools will make the longest lasting bubbles?

Directions:

1. Choose 3 household items that you could use in soapy water to make a bubble. (Ideas for tools: straw, rubber band, cookie cutter, whiffle ball …)
2. Make and write a prediction for which tool you think will make the longest lasting bubble. Explain why.
3. Use each tool to make a bubble and time how long until the bubble pops. Record your data.
4. Was your prediction supported or contradicted?

Explore the Chem4Kids website

Dive into chemistry related topics beyond the scope of our 7th grade curriculum.

http://www.chem4kids.com/map.html

ScienceWorld

Students can explore the most current events happening in the scientific community with this free issue of Science World.

- Click on the following link to get started:

https://scienceworld.scholastic.com/issues/2019-20/121619.html

Now you can explore the one free issue by reading articles, watching interesting videos, & testing your skills with sci-trivia games.

Have Fun!

Biodiversity Quiz/Reading

1. Take this quiz to test your knowledge on biodiversity!
https://www.amnh.org/explore/ology/biodiversity/what-do-you-know-about-biodiversity2

2. Read all about Biodiversity.
https://www.amnh.org/explore/ology/biodiversity/what-is-biodiversity

Watch: Why is Biodiversity so Important?

https://www.youtube.com/watch?v=GK_vRtHJZu4

Read: Ecosystem characteristics vary over time. Disruptions to any part of an ecosystem can lead to shifts in all of its populations. The completeness of an ecosystem's biodiversity is often used as a measure of its health.

In your comp book, explain what this means *in your own words*.

Applying energy transfers and transformations

(Cautionary note... In this video, the creator uses the word kinetic energy in the context of just moving objects. Technically, it is a broad category that also includes heat (moving particles, electricity (moving electrons, light (moving photons) and sound (wave-like movement of molecules.)

Watch the video below:
https://www.youtube.com/watch?v=9qvZ-LfKPB0

In your comp book, write down 5 energy transfers and 5 energy transformations shown in the video. (Use the format he provides for each one.)

For your bonus scientific pleasure, watch as many of these Rube Goldberg machines as you wish. Be careful, they can be addicting...
https://www.digitaltrends.com/cool-tech/best-rube-goldberg-machines/

For your extra bonus scientific pleasure... MAKE a simple Rube Goldberg device... and send me the video :)

Famous Scientists

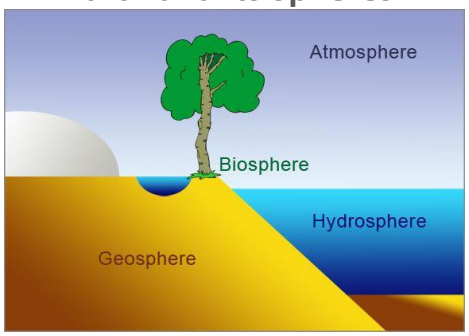
Read about the life of a famous scientist and write a short summary.

- What is their background? Childhood, education, etc.
- Why did they become a scientist?
- What are they known for?
- Why is it important that we know about them?

Ideas for the week:

Dr. Mae Jemison
Rachel Carson
Dr. Jonas Salk
Carl Sagan

Earth and Its Spheres



Celebrate the 50th Anniversary of Earth Day

Read the following articles and watch the short video about the history of Earth Day.

https://www.plt.org/educator-tips/earth-day-activities/

Review of Cross-Cutting Concepts:

Definition Link:
http://aae.lewiscenter.org/documents/AAE/Science/NGSS/Crosscutting_AAE_Poster.pdf

1. Watch the video about Earth's sphere's: https://www.youtube.com/watch?v=VMxjzWHbyFM 2. Click on the website below and scroll to the image. Read through the information so that you can become familiar with the 4 different spheres. https://socratic.org/questions/583de45f11ef6b1218cdb389 3. Finally, open the website below and read about the spheres interacting. https://eschooltoday.com/earth-system/interaction-of-the-earths-sphere.html **4. Draw a model** that shows several ways the geosphere (rock), biosphere (living), hydrosphere (water) and atmosphere (air/sky) interact. (Must be different than the examples given on the previous website) **A. Draw** an outdoor scene and label each of the 4 "spheres." **B. Describe** at least one interaction between each of the "spheres." You will end up with 6 interactions total. For example: A tree (biosphere) takes in CO2 from the atmosphere.	https://kids.nationalgeographic.com/explore/celebrations/earth-day/ 1. Take the Earth Day Challenge suggested at the end of the video. (I would suggest doing this EVERY DAY. 2. Make a commitment to celebrate Earth Day. 3. Using ideas from the resources provided, write down a plan of action to be completed on April 22. (following social distancing guidelines.) 4. Send your plan to me so I can create a document to share.	Think back to all the content you've learned in Science this year and give an example of each of the following concepts: **1. Patterns:** **2. Cause and effect:** **3. Scale, proportion, and quantity:** **4. Systems and system models:** **5. Energy and matter:** **6. Structure and function:** **7. Stability and change:**