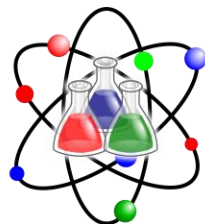




Summer Skills Practice

Science - 5th grade



Yahoo for Science! Please attempt to do 2 of the listed activities per week. If you can't get to all of them, it's okay. This is for fun and to help reinforce the skills we've already covered this year. 😊

Ducksters Articles

Please go on the following Duckster websites and read each article. When you're finished reading, do the activity listed below each website.

Topic: Chemistry

Solids, Liquids, and Gases

https://www.ducksters.com/science/solids_liquids_gases.php

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.

Melting and Boiling

https://www.ducksters.com/science/melting_and_boiling.php

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.

Chemical Reactions

https://www.ducksters.com/science/chemistry/chemical_reactions.php

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.

Periodic Table

https://www.ducksters.com/science/periodic_table.php

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.

Elements

<https://www.ducksters.com/science/elements.php>

- Complete the crossword puzzle and wordsearch after reading the article. Please use the article to help you complete this assessment.

Topic: Earth Science

Food Chain and Food Web

https://www.ducksters.com/science/ecosystems/food_chain_and_web.php

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.

Atmosphere

<https://www.ducksters.com/science/atmosphere.php>

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.

Weather

<https://www.ducksters.com/science/weather.php>

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.
- Complete the crossword puzzle and wordsearch after reading the article. Please use the article to help you complete this assessment.

Air Pollution

https://www.ducksters.com/science/environment/air_pollution.php

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.
- Complete the crossword puzzle and wordsearch after reading the article. Please use the article to help you complete this assessment.

Renewable Energy

https://www.ducksters.com/science/environment/renewable_energy.php

- Complete the 10-question quiz at the bottom of the article. Please use the article to help you complete this assessment.
- Complete the crossword puzzle and wordsearch after reading the article. Please use the article to help you complete this assessment.

Science Experiments

Please visit the first website to review the Scientific Method before completing the experiments below. Document your steps on the Scientific Method worksheet (attached to this document) as you complete the activity. As always, make sure you have permission from an adult before conducting any experiments.

Steps to the Scientific Method

<https://www.sciencebuddies.org/science-fair-projects/science-fair/steps-of-the-scientific-method>

Various Experiments

<https://www.sciencefun.org/kidszone/experiments/>

- Choose an experiment of your choice to complete.

Weight of Air Experiment

https://www.ducksters.com/science/experiment_air_weight.php

Planet Research

Using the following website, research each planet and complete the attached worksheet.

<https://www.planetsforkids.org/>

Virtual Field Trips

Please complete a field trip worksheet (attached to this document) after each adventure.

<https://www.weareteachers.com/best-virtual-field-trips/>

Video Lessons

Watch the videos listed below and complete the worksheets (attached to this document) that go along with each of them. The worksheets are from www.generationgenius.com and are attached to this document. These 5 videos are able to be accessed through a free trial. There is no need to sign up for an account.

Chemical vs. Physical Changes

<https://www.generationgenius.com/videolessons/chemical-vs-physical-changes-video-for-kids/>

Properties of Matter

<https://www.generationgenius.com/videolessons/properties-of-matter-video-for-kids/>

Sun and Other Stars

<https://www.generationgenius.com/videolessons/sun-and-other-stars-video-for-kids/>

Moon and Its Phases

<https://www.generationgenius.com/videolessons/moon-phases-video-for-kids/>

Water Quality and Distribution

<https://www.generationgenius.com/videolessons/water-quality-and-distribution-video-for-kids/>

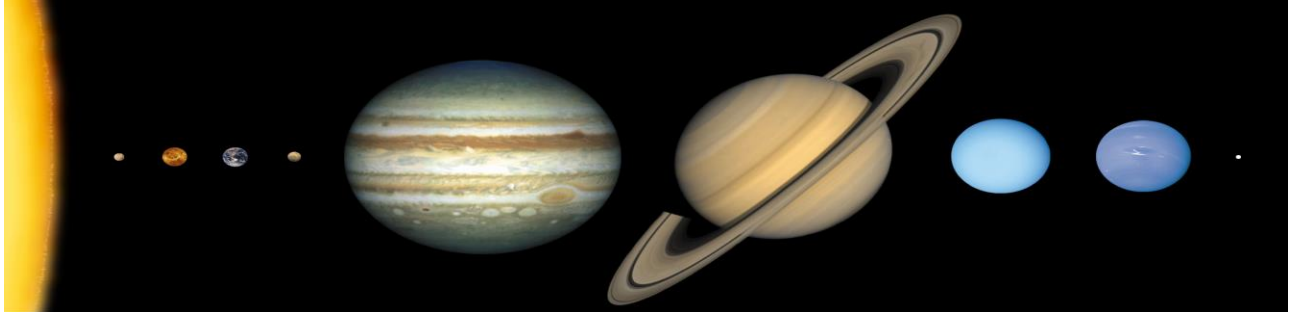
NASA STEM Activities

Complete various activities; compliments of NASA.

<https://www.nasa.gov/stem/forstudents/5-8/index.html>

Planet Research Worksheet

Please note: You will need one worksheet for each planet.



Planet name: _____

Number of moons: _____

Name(s) of moon(s):

Planet temperature (in Celsius): _____

Distance from the Sun: _____

Orbital Period: _____

What is the planet made of?

What is one "WOW" fact that you learned about this planet?

On the back side of this page, draw and color your planet.

Don't forget to include any moons the planet may have.

Field Trip Worksheet

Answer as much as you can based on your trip today. You will need one worksheet for each trip you take.

Where did you go? _____

This place is a _____ and it's located in

_____.

Have you ever heard of this place before today? _____

What are three fun facts you learned from your trip?

1. _____

2. _____

3. _____

What was your favorite part of this field trip?

What was your least favorite part of this field trip?

If you had to explain this trip to someone, what would you tell them?

On the back of this page, draw and color something that you thought was interesting about your trip.

The scientific method

question

research/observation

hypothesis

experiment

materials

-
-
-
-
-

procedure

- 1.
- 2.
- 3.
- 4.
- 5.

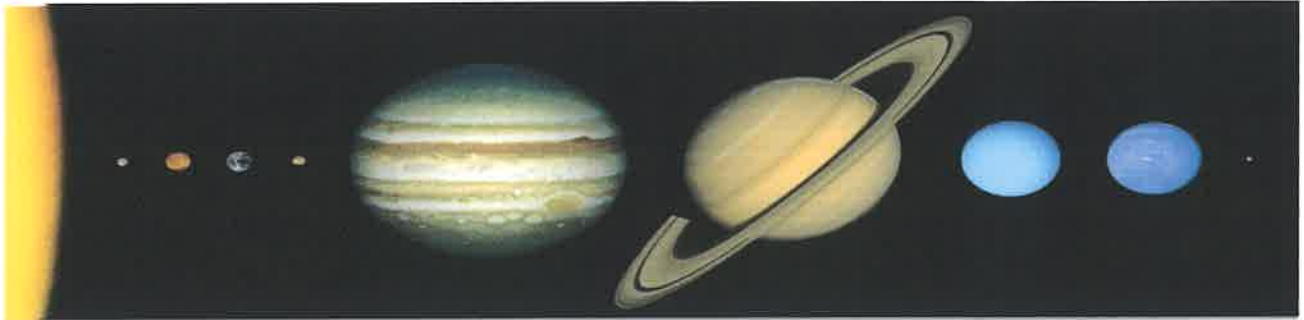
results

conclusions

new questions/notes for next time

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Name: _____

Date: _____



GENIUSCHALLENGE

CHEMICAL VS. PHYSICAL CHANGES

1. If two substances are mixed and a new substance is formed, what type of change is it?

2. Placing the spoon in hot water was a physical change since the melted metal was still...

- a. gallium b. iron c. steel d. aluminum

3. When a substance changes states (melts, evaporates, etc.) it is often what type of change?

4. Fill in the blank using **physical change** or **chemical change**.

When something burns, it is a _____

5. True or false: since gas is detected during the candy + soda demo, it is an example of a chemical change.

6. What is the evidence that the gas made in the mentos + soda demo was carbon dioxide?

7. Which of these is the most reliable way to see if a new gas has formed?

- a. Fill up a balloon b. Flame test c. Measure temperature d. Look at it

8. How does hydrogen react in a flame test? _____

9. Milk spoiling is an example of which type of change? _____

10. What type of change is mixing air into egg whites to make frosting? _____

Name: _____

Date: _____



GENIUSCHALLENGE

PROPERTIES OF MATTER

1. Why does a balloon filled with AIR weigh more than an empty balloon?

2. Which of these is matter?

- a. Energy b. Air c. Peace d. Love

3. Which property did Zoe use to tell Sodium and Iron apart? _____

4. Name a substance that is less dense than air. _____

5. What property did the team use to tell the two gases apart?

6. True or false: the team identified the clear liquids using the property of magnetism.

7. What is it called when something dissolves into something else?

- a. liquidity b. density c. viscosity d. solubility

8. What causes the Styrofoam to disappear into the acetone?

9. What ingredient gave Charlotte's slime magnetic properties?

10. What property makes a metal pot good for cooking?

11. Why is it important to know the properties of matter?

Name: _____

Date: _____



GENIUSCHALLENGE

SUN AND OTHER STARS

1. True or false: the sun is the closest star to Earth. _____
2. What is a star? _____
3. Why does the sun appear so large and bright compared to other stars?

4. The distance light travels in a year is called a _____
5. What are two things that stars produce? _____ and _____
6. Why does the star Sirius appear brighter even though it is much smaller than the star Rigel?

7. What makes our sun special?
 - a. It's bigger than other stars
 - b. It's brighter than other stars
 - c. It's the right distance from Earth to support life
 - d. It's part of the Orion constellation
8. What can travel 186,000 miles per second? _____
9. What is one way that ancient people used the stars and constellations?

10. Why might you need a planisphere to help determine which constellations are visible in the sky at a certain time of year?

Name: _____

Date: _____



GENIUSCHALLENGE

MOON & ITS PHASES

1. What causes us to see different phases of the moon?

2. True or false: the moon is the same size as the sun. _____

3. Where does the light we see from the moon come from? _____

4. What is the definition of a system? _____

5. Which is closest to the Earth?

a. moon

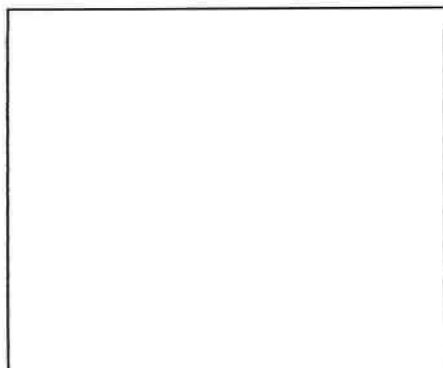
b. sun

c. Mars

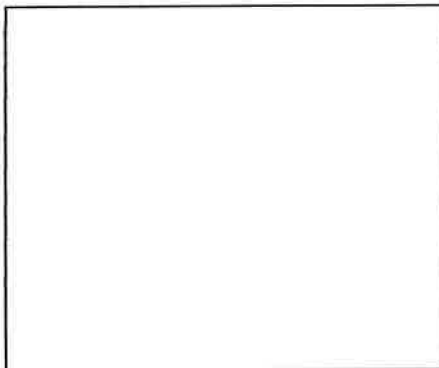
d. Venus

6. List these from largest to smallest: Earth, moon, sun _____

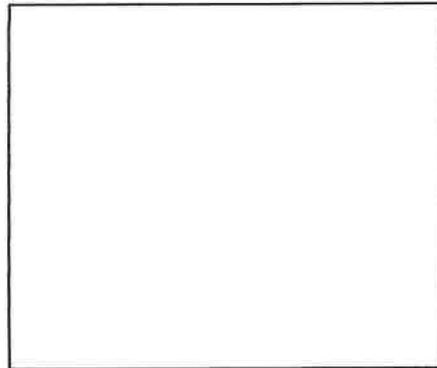
7. Draw each of these moon phases:



QUARTER MOON



GIBBOUS MOON



CRESCENT MOON

8. What caused the formation of the dark areas that can be seen on the moon with a telescope?

a. ancient volcanoes

b. meteor impacts

c. floods

d. ancient oceans

9. Which three things are connected in the system that causes us to see the moon's phases?

10. What can the lines around craters on the moon tell us?

Name: _____

Date: _____



GENIUSCHALLENGE

WATER QUALITY & DISTRIBUTION

1. List three places where freshwater can be found.

1. _____ 2. _____ 3. _____

2. What percentage of Earth's water is saltwater?

a. 3 percent

b. 100 percent

c. 97 percent

d. 50 percent

3. Why is important to measure water quality?

4. How does bacteria from dog poop get from the city into the ocean?

5. Can fertilizer that is used to water crops affect water quality? How?

6. What is an example of a positive action humans can take to impact water quality?

7. What is surface runoff?

8. True or false: cigarette butts are a common pollutant found in beach clean-ups.

9. It is safe to drink pond water that has been filtered at home? Why?

10. Why are algal blooms problematic for fish and other things living in water?
