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Earth and Space Science
Fossil Finder

1. If you are a paleontologist, what kind of work do you do?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. Fossils are formed in several ways. Describe three of them.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

3. How do molds and casts differ?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

4. Draw a sketch of a fossil in the space below.
Geologic Time

1. Name the four geologic eras.
   ___________________   ___________________
   ___________________   ___________________

2. Write the four geologic eras in order from the oldest to most recent.
   Oldest                   Most Recent
   ___________________   ___________________

3. Give an example of one creature that existed in each era.

<table>
<thead>
<tr>
<th>Era</th>
<th>Creature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Draw a picture of one of the creatures listed above.
DIGITAL DAILY WARM-UPS

Grades 5–8
SCIENCE

History and Nature of Science
Zoologist

A zoologist is a type of scientist. Use a textbook or reference materials to answer the questions below.

1. Is zoology a branch of biology or chemistry?
   __________________________________________________________

2. What does a zoologist study?
   __________________________________________________________

3. If you were a zoologist, where would you work?
   __________________________________________________________

4. Do you think you would like to be a zoologist? Why or why not?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

5. Draw an illustration of something you would do if you were a zoologist.

   _________________________________________________________

Daily Warm-Ups: The History and Nature of Science

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Nicolaus Copernicus

Use a textbook or reference materials to answer the following.

1. Copernicus was from which country?

________________________________________________________________________

2. When was Copernicus born, and when did he die?

________________________________________________________________________
________________________________________________________________________

3. Explain the theory that Copernicus had regarding the solar system.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. Was Copernicus’ theory widely accepted? Why or why not?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Thomas Edison

Use a textbook or reference materials to answer the following.

1. Where was Edison born? When was Edison born?

2. Edison invented many things. List three things that he invented.

3. Which of Edison’s inventions is the most important to your life? Explain.
Life Science
Similar Structures

All living things have structures that are used to classify them into different groups. For example, a spruce tree and a maple tree have similar structures. These may include bark, leaves, and roots. However, they also have structures that differ. For example, maple trees have broad flat leaves, and spruce trees have narrow needles.

List the similar structures for the pairs of animals below. Also, list some of the structures that are different for each pair.

1. eagle and robin: ______________________________________________
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________

2. chipmunk and squirrel: ________________________________________
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________

3. trout and shark: ______________________________________________
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________
Animal Cell

Label the animal cell below using the terms from the box.

<table>
<thead>
<tr>
<th>lysosome</th>
<th>nucleus</th>
<th>mitochondria</th>
</tr>
</thead>
<tbody>
<tr>
<td>ribosome</td>
<td>vacuole</td>
<td>nuclear membrane</td>
</tr>
<tr>
<td>cell membrane</td>
<td>endoplasmic reticulum</td>
<td>nucleolus</td>
</tr>
</tbody>
</table>
Plant Cell

Label the diagram of the plant cell below using the terms from the box.

- vacuole
- mitochondria
- nucleus
- chloroplasts
- cell membrane
- cell wall
- endoplasmic reticulum
- ribosomes
- nucleolus
- nuclear membrane
Get to Know Me?

Use the periodic table below to answer the following.

Write the symbol for each element.

1. chromium ____  
2. mercury ____  
3. boron ____  
4. phosphorus ____  
5. lead ____  
6. selenium ____  
7. argon ____  
8. tantalum ____  
9. lithium ____  
10. arsenic ____  
11. iron ____  
12. radium ____  
13. potassium ____  
14. radon ____  
15. nickel ____  

Write the name of each element.

16. Sc ________  
17. Cu ________  
18. Ge ________  
19. Pt ________  
20. Ir ________  
21. Br ________  
22. Co ________  
23. Xe ________  
24. S ________  
25. He ________  
26. Zn ________  
27. Tb ________
Fill in each line with the word from the box that best completes the sentence.

1. Forces that may cause the nuclei of an atom to break apart are ________________________.

2. The force that opposes motion is ________________________.

3. ________________________ is the force of attraction between two objects.

4. The force caused by moving electrical charges is ________________________.

5. ________________________ is the force that holds the nucleus of an atom together.

6. The force between electrical charges is ________________________.
Forces of Liquids

Choose the correct term to complete each statement.

1. An object in a fluid is supported by a force equal to the weight of the fluid that is displaced. This is _____.
   a. Bernoulli’s Principle
   b. Pascal’s Law
   c. Archimedes’ Principle

2. The pressure of a fluid is the same at all points in a closed container. This is called _____.
   a. Archimedes’ Principle
   b. Pascal’s Law
   c. Bernoulli’s Principle

3. As the speed of a fluid increases, the pressure in a moving fluid decreases. This is called _____.
   a. Bernoulli’s Principle
   b. Pascal’s Law
   c. Archimedes’ Principle

Give an example of each principle or law listed below.

4. Archimedes’ Principle: ____________________________________________

5. Pascal’s Law: ____________________________________________________

6. Bernoulli’s Principle: ____________________________________________
Using each of the words in the box at least once, write a paragraph that briefly describes the life and achievements of the famous scientist Marie Curie. Use a textbook or research materials, if needed.

<table>
<thead>
<tr>
<th>French</th>
<th>Poland</th>
<th>1934</th>
<th>uranium</th>
</tr>
</thead>
<tbody>
<tr>
<td>1867</td>
<td>woman</td>
<td>Nobel</td>
<td>radioactive</td>
</tr>
</tbody>
</table>
Science as Inquiry
Lots of Liquids

A graduated cylinder is used to measure the volume of liquids in mL. Use the graduated cylinders below to determine the volume of each.

1. 

![Graduated Cylinder 1](image1)

Answer _________ mL

2. 

![Graduated Cylinder 2](image2)

Answer _________ mL

3. 

![Graduated Cylinder 3](image3)

Answer _________ mL

4. 

![Graduated Cylinder 4](image4)

Answer _________ mL
Survey Solutions

Derek conducted a survey of his class. He wanted to know how many had blue eyes and how many had brown eyes. He also noted the hair color of each person. Read Derek’s chart. Then answer the questions that follow.

<table>
<thead>
<tr>
<th>Blue Eyes Blonde Hair</th>
<th>Blue Eyes Red Hair</th>
<th>Blue Eyes Brown Hair</th>
<th>Brown Eyes Blonde Hair</th>
<th>Brown Eyes Red Hair</th>
<th>Brown Eyes Brown Hair</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 students</td>
<td>0 students</td>
<td>2 students</td>
<td>2 students</td>
<td>1 student</td>
<td>6 students</td>
</tr>
</tbody>
</table>

1. How many students were in Derek’s survey?___________________
2. How many students have blue eyes?______________________
3. How many students have brown eyes?______________________
4. How many students have blonde hair?____________________
5. How many students have red hair?_______________________
6. How many students have brown hair?____________________
7. What is the most common hair color? Why do you think so?
   ______________________________________________________
   ______________________________________________________
8. What is the most common eye color? Why do you think so?
   ______________________________________________________
   ______________________________________________________
9. Is there any relationship between hair color and eye color?
   ______________________________________________________
   ______________________________________________________
Balancing Act

A triple beam balance measures the mass of objects in grams. What is the mass shown on each of the balances below?

1. Answer_________________

2. Answer_________________

3. Answer_________________

4. Answer_________________

5. Answer_________________
There are many ways to share information other than with words. Often a visual display, such as a graph, a chart, or a matrix, is much more useful than a sentence or a paragraph. When sharing information using visual displays, it is important to figure out which displays work best for the information that you are sharing.

Below are some pieces of information that need to be shared. On the line provided, write the type of display that would be the best choice for each job. Look at the key for some examples of different types of visual displays.

Example: The multiplication table

1. The amounts of each ingredient used to make chocolate cake
2. The continuous temperature in the school
3. A list of coordinates (ordered pairs) collected during a science experiment
How Old Is That Rock?

The law of superposition states that a layer of an undisturbed section of sedimentary rock is older than those above it and younger than those below it. Using this information, answer the following question: If a layer of granite is between two layers of sedimentary rock, which layer is the oldest and which is the youngest? Explain your answer.

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