

# Matter Webquest!

Name \_\_\_\_\_

Block \_\_\_\_\_ Date \_\_\_\_\_

Before starting our quest to hone our skills on states of matter, let's do a bit of measuring!

Go to the following website and select "Hard Centimeters"

<http://www.funbrain.com/measure/index.html>

- Record your score here: \_\_\_\_ / 10

## NOW LET'S GET STARTED ON MATTER!



### Task #1

Complete the matching game at <http://www.quia.com/custom/2202gate.html>

- If you are having difficulty remembering the definitions of this vocab, select the "show answers" tab on the right to help you!
- Rate this matching game: Circle one of the numbers below:

1 (very difficult)

2 (some words were not easy)

3 (easy)

### Task #2

Complete this matter pre-test (All About Matter)

<http://www.vtaide.com/png/matter.htm>

- Rate this pre-test:

1 (I had to fix a lot of my answers)

2 (I had to fix some of my answers)

3 (I only fixed 1 or 2 of my answers)

### Task #3

Go to [http://www.chem4kids.com/files/matter\\_states.html](http://www.chem4kids.com/files/matter_states.html) and answer the questions below by using this website - remember to use the tabs on the side also! Questions are MIXED UP!!

- 1.) \_\_\_\_\_ hold huge amounts of energy, and their molecules are spread out as much as possible.
- 2.) Rust is an example of \_\_\_\_\_ change.
- 3.) Elements and compounds can move from one phase to another phase when special \_\_\_\_\_ are present.
- 4.) What is another word for gas? \_\_\_\_\_
- 5.) When you reach the temperature of the \_\_\_\_\_ point, you become a liquid.

6.) Melting a sugar cube is a \_\_\_\_\_ change because the substance is still sugar.

7.) Fill in the boxes below with a drawing to represent each of the phases below:

Solid



Liquid



Gas



8.) Scientists use something called a \_\_\_\_\_ to measure when liquid turns into a solid.

9.) \_\_\_\_\_ are a lot like gases, but the atoms are different because they are made up of free electrons and ions of the element.

10.) The atoms inside of a \_\_\_\_\_ are not allowed to move around too much.

#### **Task #4**

Go to <http://www.factmonster.com/ce6/sci/A0832242.html> to answer the questions below. use the titles under “Sections in the Article” to find the answers. They are MIXED UP too!

1.) Name 3 properties of matter:

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

2.) The \_\_\_\_\_ is considered the basic unit of any element.

3.) Define matter: \_\_\_\_\_  
\_\_\_\_\_

4.) \_\_\_\_\_ held that all matter is made up of four “elements” - earth, air, fire, water

5.) In a \_\_\_\_\_ change, such as a change of state (e.g., from a solid to a liquid), the substance as a whole changes, but its underlying structure remains the same.

**Task #5**

Fill in the chart below using this site as a reference:

<http://www.chem.purdue.edu/gchelp/atoms/states.html>

**Some Characteristics of Gases, Liquids and solids and the Microscopic Explanation for the Behavior**

Gas	Liquid	
assumes the shape and volume of its container  particles can move past one another	<div></div> particles can move/slide past one another	retains a fixed volume and shape  rigid - particles locked into place
compressible <div></div>	not easily compressible  little free spaces between particles	not easily compressible  little free spaces between particles
flows easily  particles can move past one another	flows easily  particles can move/slide past one another	<div></div> particles can move past one another

**Task #6**

Have fun at this site watching the substance change states!

[http://www.harcourtschool.com/activity/states\\_of\\_matter/index/html](http://www.harcourtschool.com/activity/states_of_matter/index/html)

**Task #7**

Melting/heating Experiment - This one is a challenge! you can start it from the beginning as many times as necessary to help you see the change in temperature!

<http://www.harcourtschool.com/activity/hotplate/index/html>

Once on this site, select the PINK or GREEN material. (Circle which one you selected!)

What is the melting point? \_\_\_\_\_

What is the boiling point? \_\_\_\_\_

### **Task #8**

Read about physical and chemical changes and take notes from this website:

[http://nobel.scas.bcit.ca/chem0010/unit2/2.3\\_changes.htm#](http://nobel.scas.bcit.ca/chem0010/unit2/2.3_changes.htm#)

1.) What is a physical change? \_\_\_\_\_

2.) Name 3 examples of a physical change:

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

3.) What is a chemical change? \_\_\_\_\_

4.) Name 3 examples of a chemical change:

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

### **Task #9**

Take this quiz to test your knowledge on physical vs chemical changes:

<http://www.quia.com/quiz/303980.html>

What was your score? \_\_\_\_\_ %