

# It Really Does Matter Worksheet

1. List the three basic parts of an atom, *along with their charges.*

- a. Click → "ATOMS 4 Kids"  
→ Structure (right side of screen)
- b.
- c.

2. Define molecule. *Give three examples of specific molecules.*

- Definition - Click → "ATOMS 4 Kids"
- a. Click molecules within paragraph
  - b.
  - c.

3. Identify two problems with our model of the atom.

- a. Click "What's the Matter with the Model"
- b.

4. Explain what the following people did to expand our knowledge about atoms.

- a. Democritus - Click → "Ask Grandpa"  
→ Click Scientists on the timeline
- b. John Dalton -
- c. Sir J. Joseph Thomson -

d. Niels Bohr -

e. James Chadwick -

f. Werner Heisenberg -

g. Ernest Rutherford -

5. Define matter. Click "Chem4Kids - Matter"

6. List the three states (phases) of matter. "Chem 4 Kids - Matter"

a.

d.

Include all 5 states  
(not just the 3  
Main states)

b.

e.

c.

7. List two properties of a solid.

a.

↓  
Characteristics

Chem 4 Kids - Matter

→ click solid on right

b.

8. List two properties of a liquid.

a.

→ click liquid on right

b.

9. List two properties of a gas.

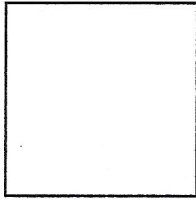
a.

→ click gas on right

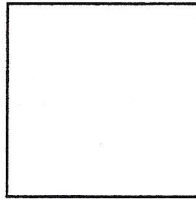
b.

Look at words in Bold

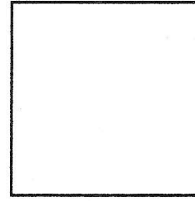
10. In the boxes below, draw a picture showing the particles in a solid, liquid, and gas.   
 gas. → Click on liquids → scroll down to "pushing on a liquid"



Solid



Liquid



Gas

11. Describe the motion of the particles in a solid, liquid, and gas.

a. Solid - Click "solids"

b. Liquid - Click "liquids"

c. Gas - Click "gas"

These are harder to find... google if you get stuck... look at BBC Bitesize

13. Describe what happens to the motion of the particles in a block of ice as it melts and boils.

a. Motion of particles as it begins to melt -

→ Chem 4 kids-Matter  
→ Phase Change 1

b. Motion of particles when it finishes melting -

c. Motion of particles as it begins to boil -

or Google...  
"BBC Bitesize  
Solids, liquids, gases  
Revision 4"

d. Motion of particles when it is boiling -

14. Define diffusion.

Click "DIFFUSION"

15. Give three examples of diffusion that occur in our school.

→ This is anything that spreads...

a.

b.

c.



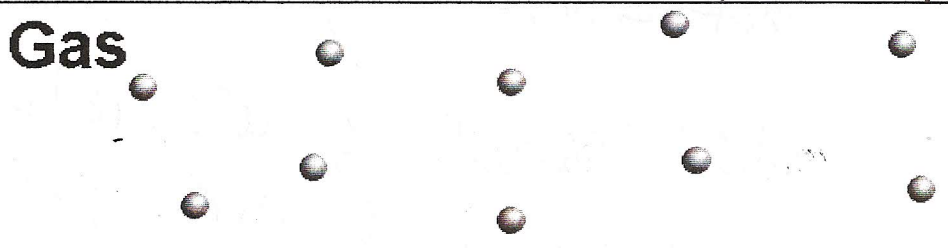


16. Complete the chart.

**Phases of Matter**      *Chem 4 Kids - Matter → Gases → Liquid → Solids*

Temperature or Energy

## Gas

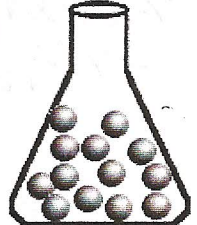


The gaseous phase of water is called \_\_\_\_\_

Another example of a gas is \_\_\_\_\_

When a gas cools and condenses, it becomes a \_\_\_\_\_

## Liquid



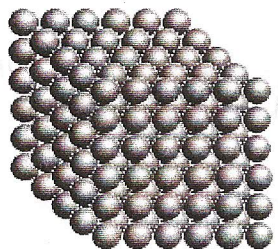
The liquid phase of water is called \_\_\_\_\_

Another example of a liquid is \_\_\_\_\_

When you heat a liquid and it changes phase, it becomes a \_\_\_\_\_

When you cool a liquid and it changes phase, it becomes a \_\_\_\_\_

## Solid



The solid phase of water is called \_\_\_\_\_

Another example of a solid is \_\_\_\_\_

When you heat a solid and it melts, it becomes a \_\_\_\_\_

*Think ABOUT it... you probably know most of these already...*

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