Science Homework **Mrs. Hernandez** **Sept. 3-7, 2018**

Sections: 4A,B,C,D,E

Date	Homework	Parent Signature
Monday	No School-Labor Day	
Tuesday	➔ Begin working on **Why Does Matter Matter?**	
Wednesday	➔ **Speed Bag:** Reread "Who Am I?" and answer questions on pages 90-91 ***Due Thursday*** ➔ Continue working on **Why Does Matter Matter?**	
Thursday	➔ Continue working on **Why Does Matter Matter?** ➔ Begin **Science--IAN** homework	
Friday	➔ Cont. Working on all homework ➔ Due **Monday**	

Science -- I.A.N

- Finish numbering your pages.
- Finish "About the Scientist" if you haven't done so.
- **Cut and paste the "Science IAN Homework" page insert onto page 2 of your IAN.**
  - **Follow the directions on the page:**
    - **DRAW examples of a solid, liquid, and a gas.**
    - **Use color and be creative**
    - **NO PICTURES from GOOGLE!!**

Vocabulary

Physical property:any measurable or observable attribute that describes matter

Mass: a measurable physical property that can be described as the amount of matter in an object

Balance scale: an instrument/tool used to measure the mass of solids

Gram: metric unit for mass

Volume: the amount of space an object takes up

Graduated cylinder: tool used to measure the amount of liquids and powdered substances

Color: an example of a physical property that can be observed

Texture: another physical attribute used to describe how somethi ng feels when you touch it

Reminders

- **Parents**: Don't forget to initial your child's HW Cover Sheet every night.
- You are taking your I.A.N home this week, please remember to bring it back every day!
- You are taking your SPEED BAG home this week on Wednesday don't forget to bring it back to school!!
- HW DUE **MONDAY**

Name: _____

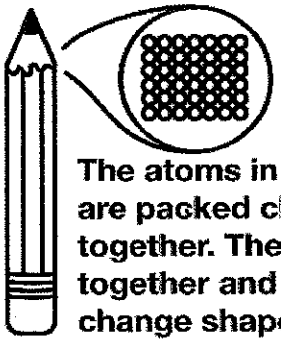
Why Does Matter Matter?

by Kelly Hashway

What do trees, air, and water have in common? They all have matter. That means they take up space. You might be wondering why these things look so different if they all have matter. Everything found on Earth can be grouped into one of three states of matter: solid, liquid, or gas. In order to figure out which state of matter an object fits in, we have to examine its properties. The properties we look at are shape, mass, and volume. Mass is the amount of matter an object has, and volume is the amount of space the matter takes up.

Solid

Solids are easy to recognize. They have definite shape, mass, and volume. Trees are solids. They are made up of tiny particles called atoms. These atoms are packed closely together, and they hold the solid in a definite shape that does not change. If you look around your house, you will see lots of solids. Televisions, beds, tables, chairs, and even the food you eat.

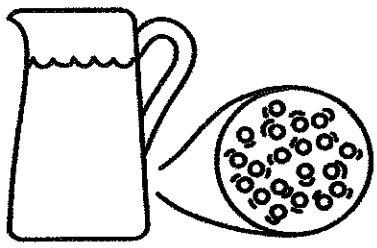


The atoms in a solid are packed closely together. They bond together and do not change shape.

Liquid

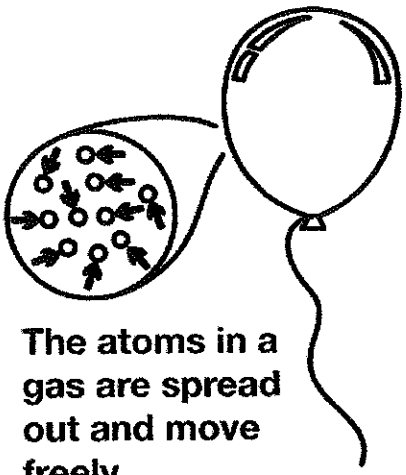
Liquids do not have definite shape, but they do have definite mass and volume. Liquids are similar to solids because their atoms are close together, but what makes a liquid different is that those atoms can move around. Liquids can change shape by flowing. If you've ever spilled a glass of milk, then you know it spreads out across the floor. It does this because the milk is taking the shape of the floor. Since liquids do not have a definite shape of their own, they will take the shape of their containers. This is why the same amount of milk can look different in a tall glass, a wide mug, or spread out on your kitchen floor.

The atoms in a liquid are close together. They slide around.



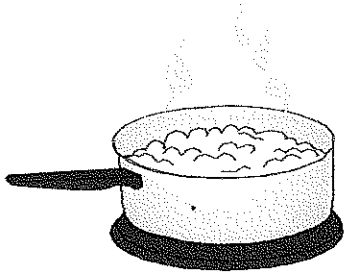
Gas

Gases do not have definite shape or volume. Like liquids, gasses will take the shape of their containers. If a gas is not in a container, it will spread out indefinitely. This is because the atoms in a gas are spaced farther apart than in a solid or a liquid. And being spread out like this allows them to move around freely. Think about the air you breathe everyday. That air is spread across the empty space around the earth. You've probably also noticed that you usually cannot see the air. This is another property of gases. Even though we cannot see them, you come in contact with them everyday. There's air in the tires of your family car and your bicycle. There are many different types of gas in the earth's atmosphere, such as oxygen, carbon dioxide, nitrogen, water vapor, and helium.



The atoms in a gas are spread out and move freely.

When trying to remember the three states of matter, think about water. If it freezes into a solid, it becomes ice. Its atoms are packed together keeping its shape. Of course, we know water can also be a liquid. It flows in rivers or it can be poured from a glass. When water evaporates it becomes water vapor, a type of gas in the air. Try a little experiment of your own by placing an ice cube in a covered glass or container. You will be able to observe the ice first in its solid form and then watch as it melts into a liquid to become water. Eventually the water will turn to water vapor and your glass or container will be filled with this gas.



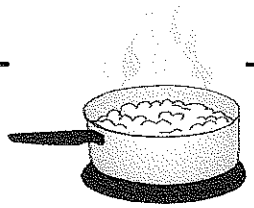
You can see three different states of matter in this picture. The pot is made of solid matter. The water inside the pot is liquid. When the liquid is heated it becomes water vapor, which is a gas.

Matter is everywhere! Can you find a solid, a liquid, and a gas around you right now?

Name: _____

Why Does Matter Matter?

by Kelly Hashway



solids	volume	container	matter	ice	juice
gases	mass	atoms	chair	oxygen	melting
liquids	shape	space	milk	helium	

Choose a word from the box to complete each sentence.

1. The three basic properties of matter are _____,

_____, and _____.

2. All matter is made up of tiny particles called _____.

3. Volume is the amount of _____ that matter takes up.

4. Mass is the amount of _____ an object has.

5. Liquids take the shape of their _____.

6. _____ do not have a definite shape or volume.

7. _____ do not have a definite shape, but they do have a definite volume.

8. _____ have a definite shape and volume.

9. A _____ and _____ are examples of solids.

10. _____ and _____ are examples of liquids.

11. _____ and _____ are examples of gas.

12. Solid ice is _____ when it is changing into a liquid.

Name: _____

Properties of Matter

Directions: What do you know about the properties of matter? Answer each question, then, research to see if you were correct.

1. What is matter? _____

2. What are the three states of matter?

_____ _____ _____

3. Which state holds its own shape? _____

4. What do you know about a gas's molecules?

_____

5. What state of matter takes the shape of its container?

_____

6. What do you know about a solid's molecules?

_____

7. Name three solids.

_____ _____ _____

8. Name three liquids.

_____ _____ _____

9. Name three gasses.

_____ _____ _____

10. All matter has _____ and

takes up _____ .

Science I.A.N.
Homework

Directions: Cut along the dotted line and **paste this page into PAGE 2** of your notebook.
DRAW EXAMPLES OF A SOLID, LIQUID, AND GAS--NO GOOGLE OR PRINTED PICTURES--MUST BE YOUR OWN DRAWINGS.