

Science - a branch of knowledge requiring systematic study and method, dealing with substances, life and natural laws.

Scientist - an expert in a science

Scientific Method for Investigations

Scientists try to find patterns in things and look for explanations for the pattern. The scientific method is a way of approaching and solving a problem, or answering a question.



Here's the recipe.

- **Ask a question.**
 - **Gather information.**
 - **Form a hypothesis, propose a solution.**
 - **Test the proposed solution.**
 - **Evaluate the data. Is the hypothesis correct? Does it make sense?**
 - **Report results. Let others know.**
- Make changes. Propose a better solution.**



If your methods make sense, then others may accept your hypothesis as a theory. If not, then your hypothesis may be rejected. There is always the possibility that new observations or new information will disprove a long-standing theory.



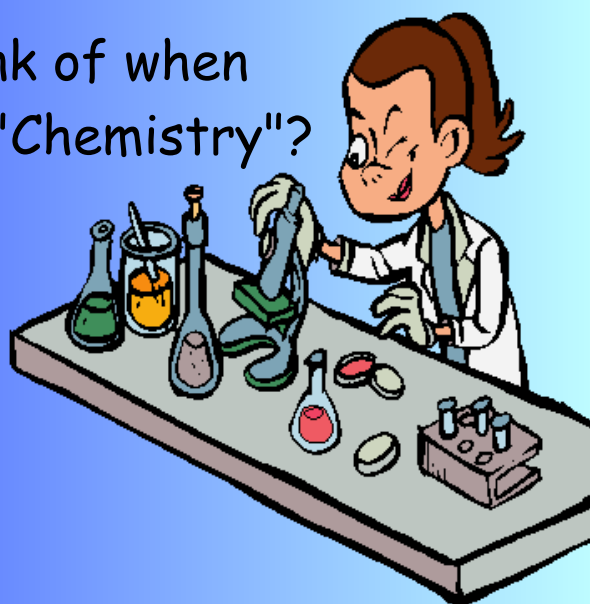
Homework

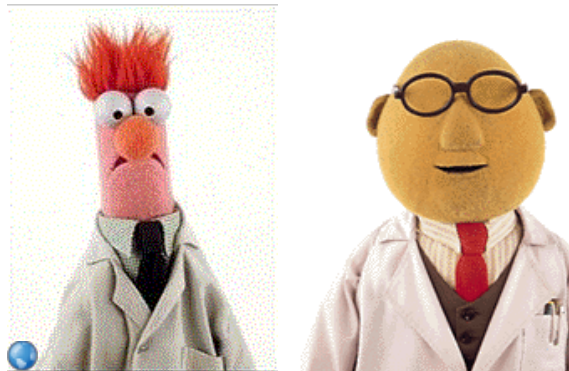
- Name of muppet characters
- Name of 4 types of scientists and what they study



Warm Up

1) What do you think of when you hear the word "Chemistry"?





Homework 

- Name of muppet characters
- Name of 4 types of scientists and what they study

What is Matter?

Matter is anything that takes up space and has a mass

- It is anything that has a mass and volume

What is Matter?

{ **Mass** is the amount of matter in a substance. It is often measured in gram or kilograms

{ **Volume** is the amount of space a substance occupies. It is often measured in litres.

What is Matter?

Everything is made of matter

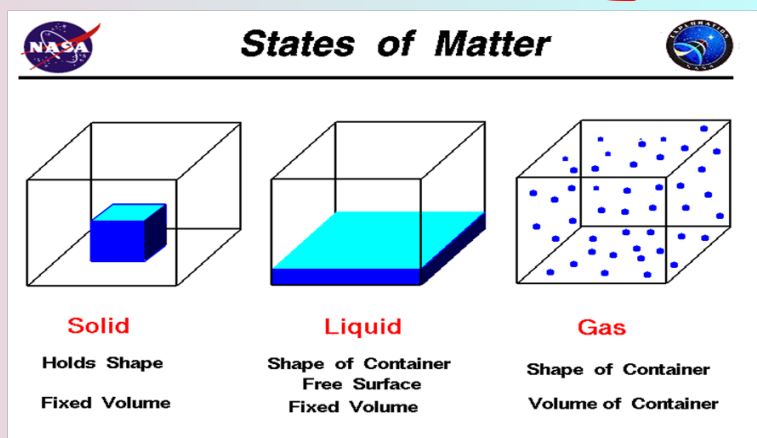
(water, food, computers, rocks etc)

Hey that's almost like
"Everything MATTERS"

Properties of Matter

- Matter can be found in three phases *of matter*

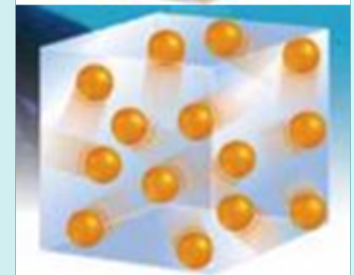
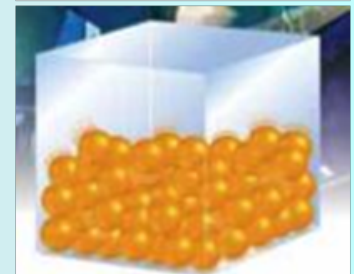
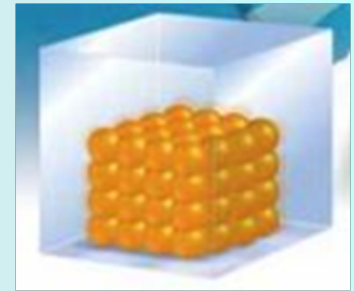
- > Solid
- > Liquid
- > Gas



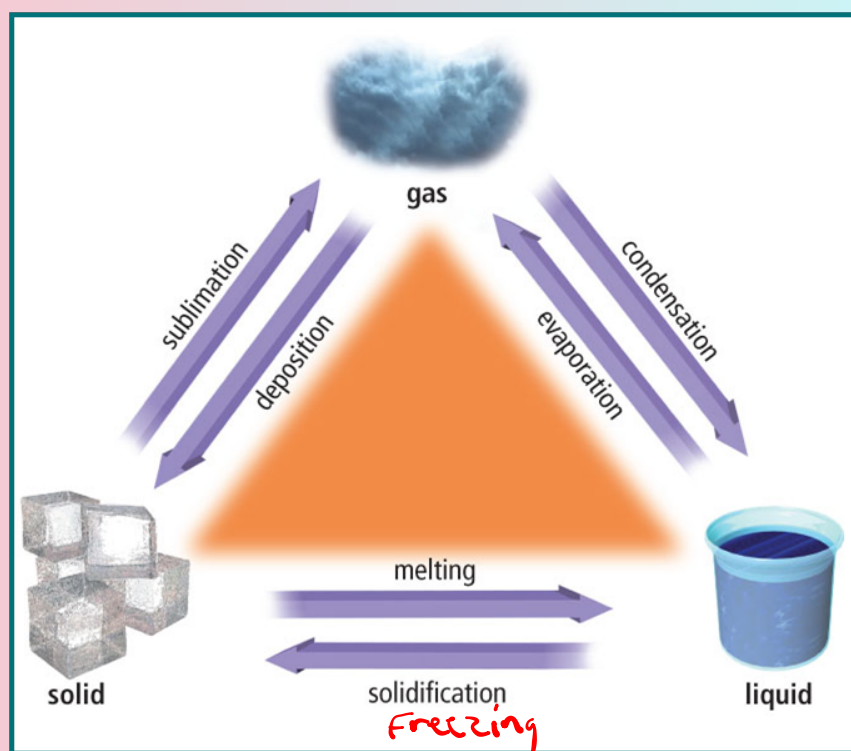
Think of an example of matter that exists in all three states?

Properties of Matter

- Matter is made of small particles. There are empty spaces between all of these particles that allow the particles to move.
- > Solid particles are packed together and cannot move freely. They only vibrate.
- > Liquid particles are farther apart and can slide past each other.
- > Gas particles are far apart and move around quickly.



Temperature and Changes of State



Attachments

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