Unit 2
Class Work

NAME
10/5/13

2.4 Particle Diagrams

SPARK – 5 minutes!

1. Steam is sometimes used to melt ice. Is this a physical or chemical change?
2. When you are chewing your food, are there chemical changes or physical changes taking place?
3. Why do liquids and gases both not have permanent shapes?

Objective:

SWBAT draw particle diagrams and compare properties of a solid, liquid and gas in terms of energy and intermolecular distance

Agenda:

SPARK

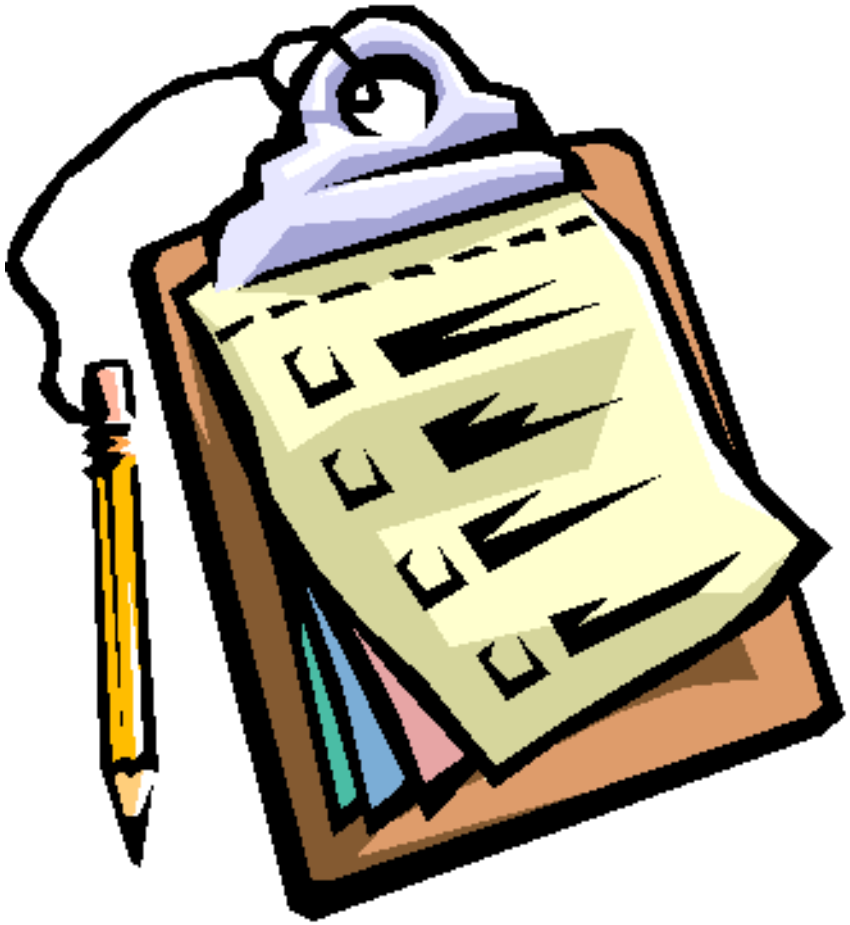
Objective

States of Matter

Gluep Activity

Particle Diagrams

Homework



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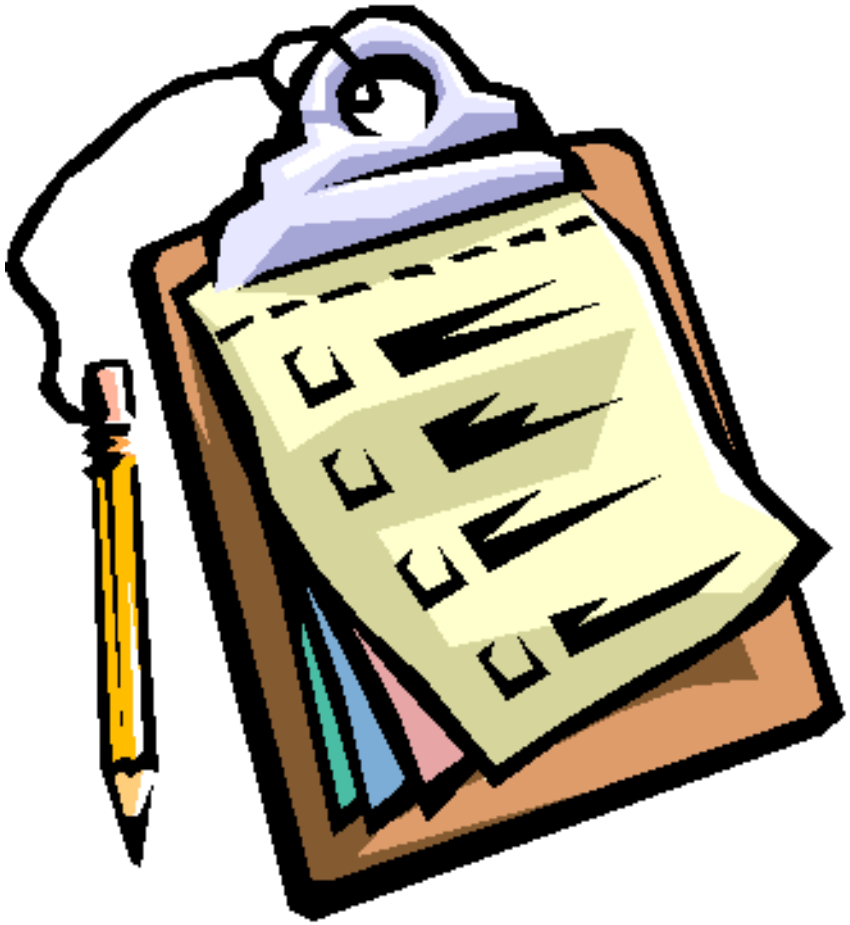


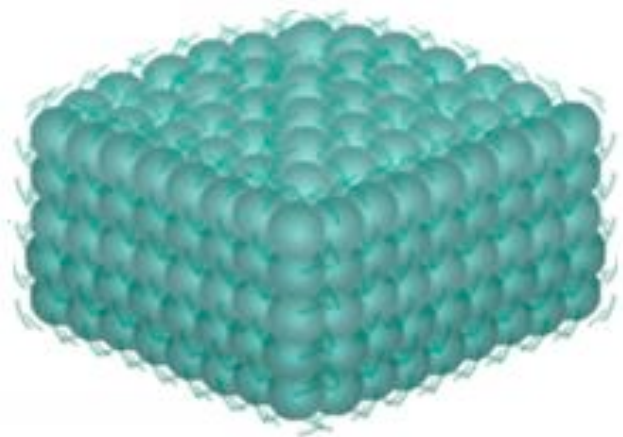
I need some volunteers…

Demo

- Marble Model

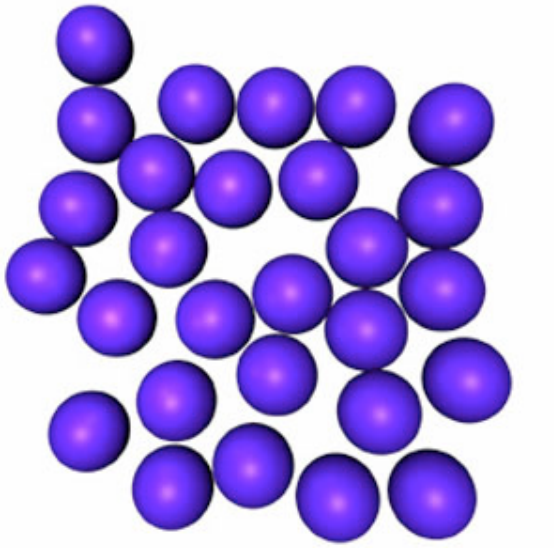
Solids

- Attractive forces: Strong
- Energy and motion: Low energy; particles vibrate



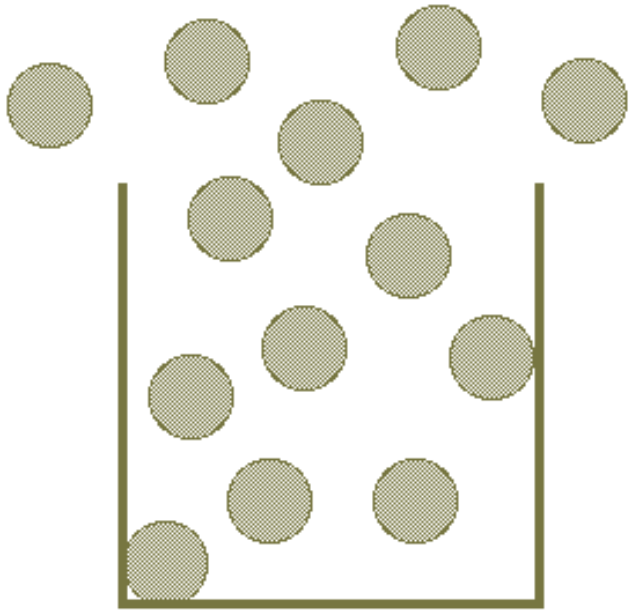
Liquids

- Attractive Forces: Weaker than solids stronger than gases
- Energy and Motion: More energy than solids and less energy than gases; particles move – liquids **flow**

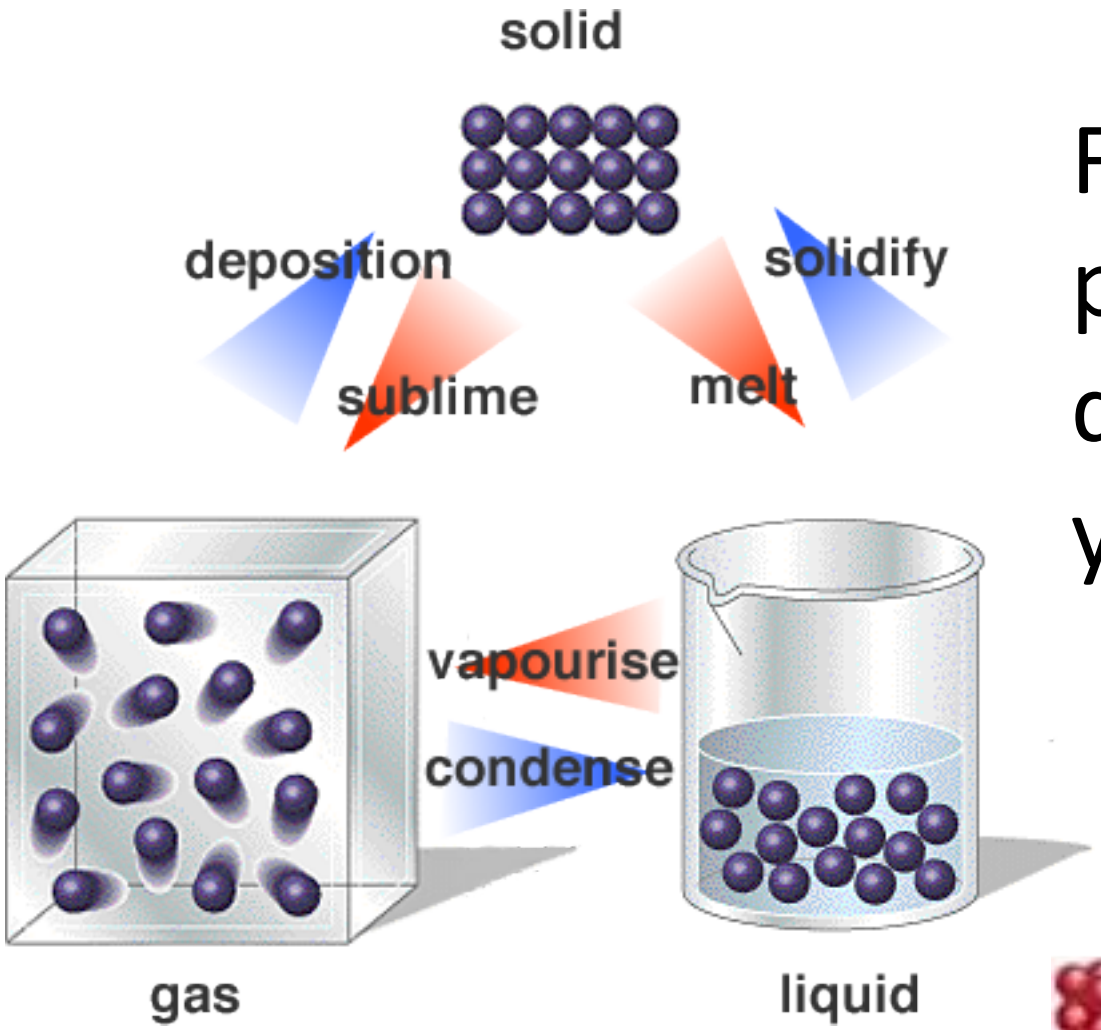


Gases

- Attractive Forces: Very Weak
- Energy and motion: High energy; particles move around quickly



Particle Diagrams



Fill in the particle diagrams on your 2.2 WS

Let's Make Some Gluep!

- If water is a liquid and wood is a solid, what in the world is gluep?

- We are going to find out!

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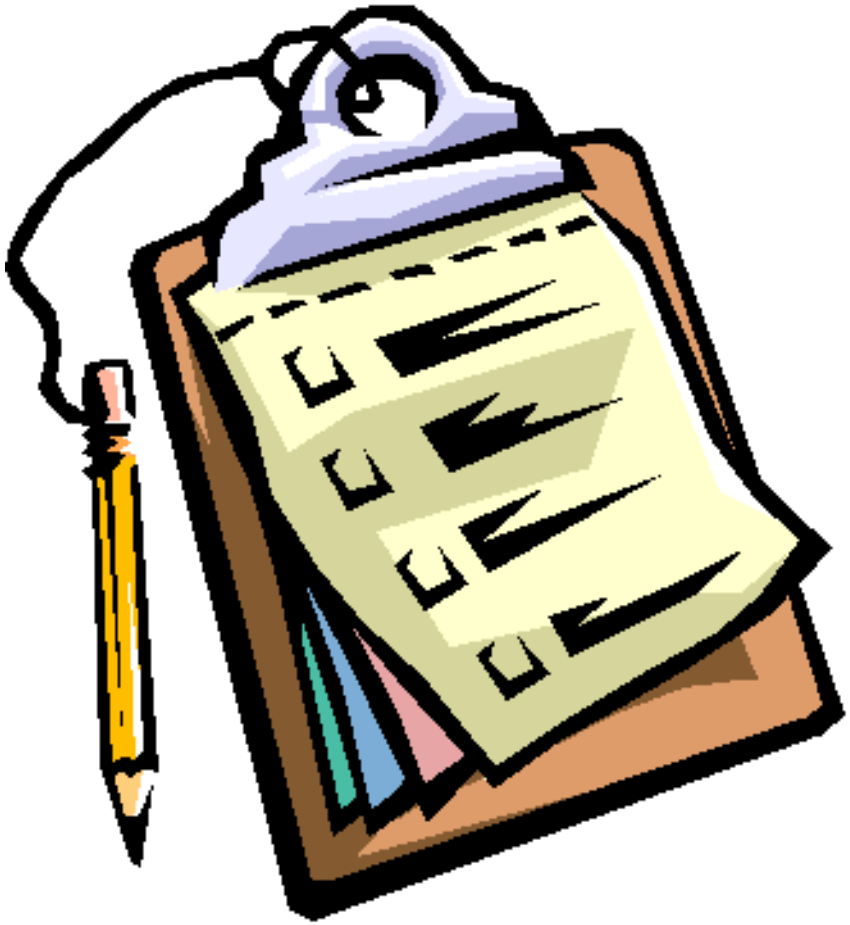

Let's Make Some Gluep!

- You will receive a tray with the following:
  - A ziploc bag filled with glue and food coloring
  - A beaker with water and borax (sodium tetraborate)

Once everyone receives their tray, you will be invited to careful pour the contents of your beaker into the plastic bag. Close the plastic bag letting out the air and knead the materials together.

Observations of Gluep

- Write down 6-8 SPECIFIC observations of your creation
- You've made your gluep?
  - Try rolling the gluep into a ball and placing it into the tray. What happened?
  - Roll the gluep into a cylinder and pull the ends- what happens?

I will be COLLECTING this sheet!

State Your Claim

- Based on what properties you see, should Gluep be considered a solid, liquid or gas? Support your position with evidence and explanations.
- Draw a particle diagram of what you believe Gluep should look like

I will be COLLECTING this sheet!

Clean Up

One member of each group silently bring the tray to the counter for Ms. Hart to clean!

You may bring your glue HOME! Pick it up at the end of the school day!

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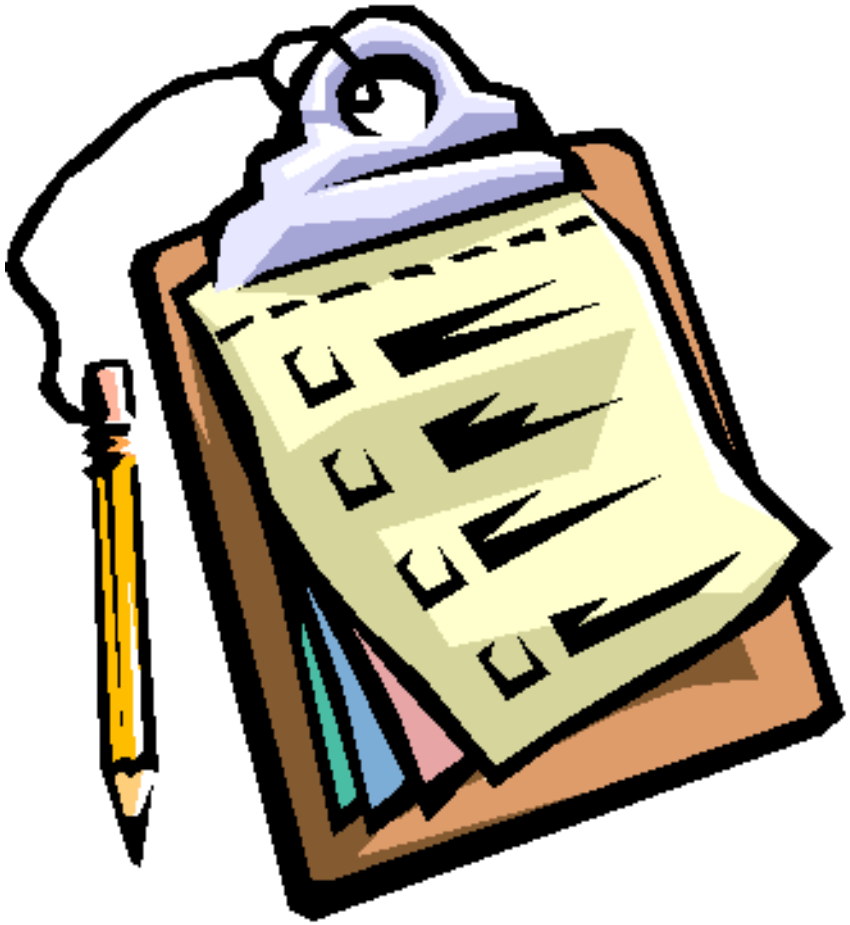

HOMEWORK

On a sheet of loose leaf:

Finish your state your claim response! I will be collecting on Monday!