Chemistry States of Matter

PHYSICAL SCIENCE

States of Matter – physical state of matter



Chemistry Matter & Change, Glencoe Science P. 58 - 60

States of Matter





Solids

Solids – a form of matter that has its own definite shape and volume.

Example: Wood, Sugar, Iron



Liquids

Liquids – a form of matter that flows, has a constant volume and take the shape of its container.

Ex.: Water, Blood, Mercury





Gases

Gases – a form of matter that flows to conform to the shape of its container and fills the entire volume of its container.

- Ex.: Neon, Methane, Air
- Vapor gaseous state of a substance that is a solid or a liquid at room temperature

Ex: Steam from water.





Plasma

Plasma – Does not form naturally on Earth Ex.: lightning bolts





Activity – Find your partner

http://www.chem.purdue.edu/gchelp/atoms/states.htm

Take a piece of paper.

Read your paper and find someone that matches your characteristic of that State of Matter

When you find someone write their description under the correct state of matter in your notes.

Demonstration/Lab

Materials:

- Candle
- Match
- Vinegar
- Baking Soda
- Beaker
- Procedure:
- Light your candle
- 2. Place 30 g of baking soda in the beaker
- \blacktriangleright 3. Add 10 15 ml of vinegar into the beaker
- 4. Hold the beaker over the candle & act like you will pour the liquid out (but don't).
- 5. What happens to the flame of the candle?
- 6. Why?

Adult Ed - State of Matter Project .25 Credits

- Design a Coin
 - Research what materials coins are made of.
 - What images would you have on the heads side and on the tails side? Why?
 - What anticounterfeiting features will you include in your design?
 - How large should your coin be? Show the size in a drawing.
 - What should be its mass? What is the typical mass of a coin?
 - What would happen if the materials in the coin were worth more than the face value of the coin?
 - Lastly, Consider the life cycle of the coin.
 - How long will it be expected to stay in circulation? How will it be obtained and processed once it has served it's purpose?