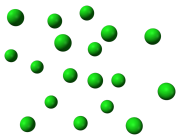
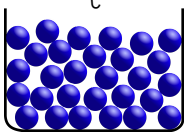
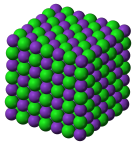
Name _____ Date of Test: _____

Study Guide: Conservation of Matter and Scientific Skills

Vocabulary Words

Conserve/ Conservation	To maintain a constant total. The act of keeping the same- not losing or gaining.
Matter	The material from which all substances are made. Everything that takes up space.
Property	A property describes how an object looks, feels, or acts.
Conclusion	A decision based on investigation and evidence.
Observation	Using your 5 senses to gather information about objects and events.
Data	A collection of facts, such as values or measurements, that can be used to draw a conclusion.
Hypothesis	A statement of what you think will happen and why.
Mass	The amount of matter in something.
Volume	The amount of space that something takes up.
Instrument	A special tool used to make observations or measure things.
Gas 	Matter that does not have a definite volume or shape.
Liquid 	Matter that has a definite volume but not a definite shape.
Solid 	Matter that has both a definite volume and shape.
dissolve	when a solid is mixed with a liquid and becomes a part of the liquid

Ways scientists prevent errors when measuring with a digital scale or balance scale:

- Measure at least 3 times
- Make sure the scale is calibrated (start at 0 for digital)
- Make sure scale is on an hard, level surface.

Scientists use the 5 senses when making observations:

- Sight; Smell; Touch; Taste; Hear

Review of Labs

Name of Lab	Question	Conclusion
Sum of Parts	Will the total *mass* of an object be equal to the sum of the parts?	The total mass is conserved and equal to the sum of the parts.
Snap Cube Lab	What happens to the mass of a solid when you change the shape?	The mass of a solid is conserved (stays the same) when the shape is changed.
Water Bottle Lab	What happens to the mass of a liquid when it changes to a solid state?	The mass of a liquid is conserved (stays the same) when it changes to a solid state.
Sugar Lab	What will happen to the total mass when sugar is dissolved in water?	The total mass of the sugar dissolved in the water is conserved (stays the same).
Balloon Lab	What happens to the mass when a solid is changed into a gas?	The mass is conserved (stays the same) when the solid is changed to a gas.

Big Concept to understand from our labs:

<u>Conservation of Matter</u>- The total amount of matter is "conserved" when it undergoes a change. (this means the amount of matter stays the same, even if you change the shape or state it is in. The only way the amount of mass changes is if you add matter or take matter away).

Be able to <u>apply lab skills</u> when given a sample lab.

- Write a hypothesis to answer the lab question and make a prediction.
- Use data given to decide the best conclusion.
- Apply knowledge of total mass is equal to the sum of the parts. Use subtraction to find the mass of a part from the total.