

Name: _____

SciTec 2

Date: _____

Test 1 Review

Scientific method

1. Indicate which part of the scientific method is being described
 - A. An educated guess **hypothesis**
 - B. Written as numbered steps: **procedure**
 - C. Expressed in a table or chart: **results/observations**
 - D. Written as a list: **materials**
 - E. Explains results: **analysis**
 - F. Summary: **conclusion**
 - G. Contains source of error: **conclusion**
2. Why is it important to repeat an experiment more than once?

To ensure that the results obtained were not a fluke!

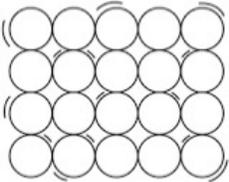
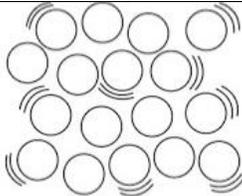
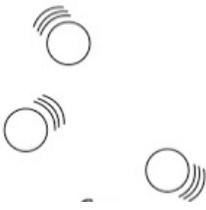
States of matter:

1. All substances are made of _____ **atoms (particles)** _____ which cannot be _____ **seen** _____ by the naked eye because they are _____ **microscopic** _____.
2. Name the three states of matter: _____ **solid, liquid, gas** _____
3. List the 6 changes of state (phase changes) and indicate the phases involved
 - a) **S → L melting (fusion)**
 - b) **S → G sublimation**
 - c) **L → S freezing (solidification)**
 - d) **L → G evaporation**
 - d) **G → S deposition**
 - f) **G → L condensation**

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4. Complete the table below

Characteristic	Solid	Liquid	Gas
Shape	definite	indefinite	indefinite
Volume	definite	definite	indefinite
Forces/bonds	strong	weaker	Very weak
Movement	Very little (almost none)	Some movement (can roll over each other)	Lots of movement!
Drawing (particle model)			

4. What is the relationship between temperature and particle movement?

As you increase the temperature (give more energy) particles move more!

Changes

1. Indicate whether the sentence is describing a chemical or physical change.

- A. A new substance is formed: _____ **chemical** _____
- B. Burning, decaying, cooking, rotting, rusting: _____ **chemical** _____
- C. Tearing, crushing, change of state: _____ **physical** _____
- D. No new substance produced _____ **physical** _____
- E. Only changes in appearance: _____ **physical** _____
- F. Easily reversible _____ **physical** _____
- G. Not easily reversible _____ **chemical** _____

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2. What are the 5 signs of a chemical change?

___ Formation of a precipitate _____

___ Change in colour _____

___ Release of gas/odour _____

___ Gives off heat _____

___ Gives off light _____

3. What is the law of conservation of matter?

Matter cannot be created nor destroyed; it can only every be changed from one form to another

4. Based on the law of conservation of matter, if 50 g of salt is combined with 1000 g of water, what is the resulting mass of salt water?

1000g + 50g = 1050g of salt water because matter cannot be destroyed.