Test 1 Review

**Scientific method**

1. Indicate which part of the scientific method is being described
2. An educated guess:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Written as numbered steps:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Expressed in a table or chart:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Written as a list:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Explains results:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Summary:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Contains source of error:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Why is it important to repeat an experiment more than once?

**States of matter:**

1. All substances are made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which cannot be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the naked eye because they are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Name the three states of matter:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. List the 6 changes of state (phase changes) and indicate the phases involved

a)

b)

c)

d)

e)

f)

4. Complete the table below

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic** | **Solid** | **Liquid** | **Gas** |
| Shape |  |  |  |
| Volume |  |  |  |
| Forces/bonds |  |  |  |
| Movement |  |  |  |
| Drawing  (particle model) |  |  |  |

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

**Changes**

1. Indicate whether the sentence is describing a chemical or physical change.
2. A new substance is formed:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Burning, decaying, cooking, rotting, rusting:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Tearing, crushing, change of state:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. No new substance produced\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Only changes in appearance:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Easily reversible\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Not easily reversible\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. What are the 5 signs of a chemical change?

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1. What is the law of conservation of matter?

1. 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?\_\_\_\_\_\_\_\_\_\_\_\_\_\_