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| CHEMISTRY | CODE: SCS21/A |
| 2014-2015 SCHOOL YEAR | INSTRUCTOR: Ms. Bui |
| CLASSROOM: 510 | LAB ROOM: 506 |

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| Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Subject: Chemistry |

**Test Review 01**

1. **Choose the best answer**
2. Water molecules are attracted to other water molecules.
   1. cohesion
   2. adhesion
   3. surface tension
   4. capillary action
3. Method for separating an insoluble solid from a liquid.
4. distillation
5. filtration
6. separating funnel
7. magnetism
8. Base unit for temperature
9. mole
10. meter
11. kilogram
12. kelvin
13. Change of state in which a solid becomes a liquid.
14. freezing
15. melting
16. condensation
17. sublimation
18. The amount of space an object occupies
19. mass
20. weight
21. volume
22. liquid

1. Measurement is a collection of quantitative data
2. True
3. False
4. Homogenous means uniform
5. True
6. False
7. Accuracy means how close the measurement is to the actual value
8. True
9. False
10. Pure substance can be heterogeneous
11. True
12. False
13. Saturated means a solution at the limit of the solubility curve
14. True
15. False
16. **Short answer**
17. List 4 steps to the scientific method
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
18. List 3 major divisions of chemistry
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
19. What is the difference between weight and mass?
20. Can a molecule be an element? Explain
21. **Fill in the blank**

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| **Examples** | **Change of Matter Stages** |
| **Water becomes ice** |  |
| **Dry ice becoming gas** |  |
| **Rain** |  |
| **Vapor becomes frost** |  |
| **Ice becomes water** |  |
| **Water becomes vapor** |  |

1. **Diagrams -** Identify the particle diagrams with the following: solid, liquid, gas, element, compound, and heterogeneous (cannot be used more than once)

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| **Particle Diagram** | **Name** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

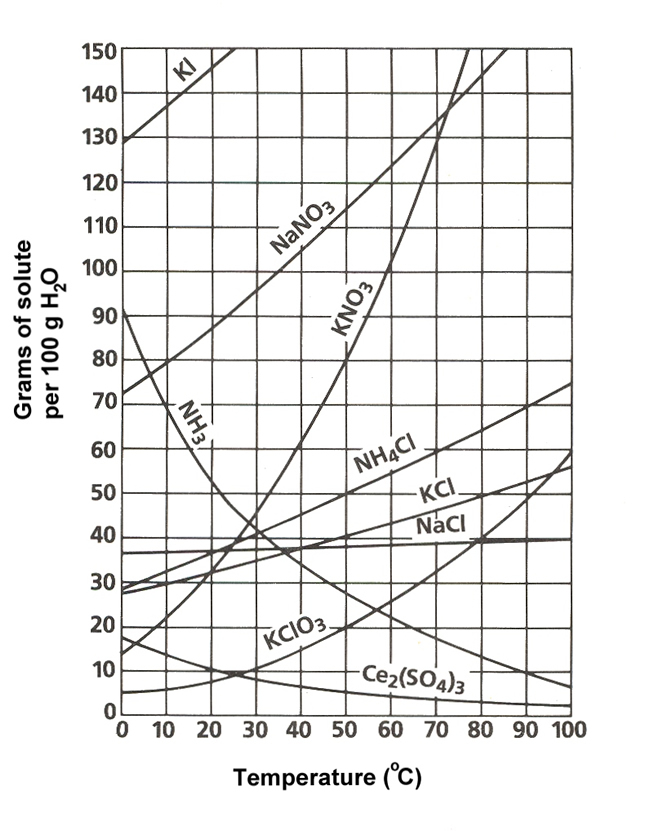
1. **Answer based on table**

True value of a = 4.02 cm

Measurements (all in cm)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Students** | **1st time** | **2nd time** | **3rd time** | **4th time** |
| Bill | 4.00 | 4.45 | 3.89 | 3.90 |
| Jane | 4.20 | 4.21 | 4.23 | 4.22 |
| Walt | 4.10 | 4.07 | 4.39 | 4.20 |
| Sam | 3.80 | 4.10 | 4.23 | 4.01 |

1. Who is the most accurate in the 1st time and why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Who is the least accurate in the 1st time and why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Who is the most precise? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. **Choose the best answer**



1. What mass of solute will dissolve in **100 mL** of water at the following temperatures?
   1. KNO3 at 60°C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. NaCl at 90°C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. NH4Cl at 70°C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Use the solubility curve label the following solutions as saturated or unsaturated. If unsaturated, write how much more solute can be dissolved in the solution.

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| **Solution** | **Saturated or Unsaturated? Explain** | **If unsaturated: How much more solute can dissolve in the solution?** |
| a solution that contains 90g of NaNO3 at 40°C (in 100 mL H2O) |  |  |
| a solution that contains 40g of NaCl at 80°C (in 100 mL H2O) |  |  |

1. **Calculate**

Given: The mass of an object is 50 g and the volume is 102 ml.