What Am I

# Purpose

The purpose of the experiment is to determine an unknown by comparing its reaction with vinegar and oxidized copper to that of known substances.

# Materials



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* Salt
* Sugar
* Baking soda
* Vinegar
* Old copper pennies
* Beakers
* Scoopula

# Procedure

1. Go to the back of the room and collect 3 beakers and a stir stick
2. Using the \_\_\_\_ pen label each beaker
	1. Baking soda
	2. Sugar
	3. Salt
3. We, as a class, will then pass around the baking soda, sugar and salt.
4. When it comes to you, put 1 scoop of the each into the corresponding beaker
5. Once you have them all, go and collect the big beaker of vinegar and 2 pennies
6. Add enough vinegar to reach the 10ml on the side of your beaker
7. Stir the solution if you see nothing happen
8. Record your observation in the data box, also note if you think it was a chemical or physical reaction that occurred
9. After recording your observations add a penny to both the sugar and salt beaker
10. Observe what happens and record what you see and whether you think it is a chemical or physical change. This may take a couple minutes to see the change. (you are looking to see if the penny gets cleaner)
11. Once you have all your observations, collect an unknown beaker from the back of the room.
12. Add the vinegar to the unknown and record what you see.(you may need to stir the solution)
13. Add the penny to the mixture and record what you see.
14. Write whether you think your unknown is baking soda, sugar, or salt.

# Data collection:

**Observation when added Vinegar**

|  |  |  |
| --- | --- | --- |
|  | Observation | Chemical or physical change |
| Baking soda |  |  |
| Sugar |  |  |
| Salt |  |  |

**Observation what added Penny**

|  |  |  |
| --- | --- | --- |
|  | Observation | Chemical or Physical Change |
| Sugar |  |  |
| Salt |  |  |

**Observation with Unknown and Vinegar**

|  |  |  |
| --- | --- | --- |
|  | Observation | Chemical or Physical Change |
| Unknown |  |  |

**Observation with Unknown and Copper Penny**

|  |  |  |
| --- | --- | --- |
|  | Observation | Chemical or Physical Change |
| Unknown |  |  |

**Unknown:­­­­­­** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

# Discussion

Write a paragraph response to each of these questions.

1. Which of the above reactions where chemical and which were physical changes? What clues were there to aid you in classifying them this way?
2. For each sample (baking soda, salt and sugar) what was the distinguishing reaction that separated them from each other?
3. State what you believe your unknown to be and why you believe this. (use reference to the reactions you discussed in b.)

# Conclusion

In a sentence or 2, state what you believe your unknown to be, and what reaction it mimicked for your observations to aid you in this belief.