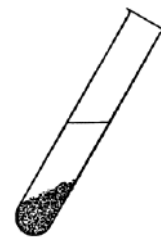


ACTIVITY: Investigating Physical and Chemical Properties**PRELAB:**

1) What is a **physical property**? List three examples of physical properties.

2) What is a **chemical property**? List three examples of chemical properties.

**Procedure:**

• Place a small sample of one of the materials in a test tube, then follow the procedures below. The procedures should be followed in order. Do not discard the sample until the last property has been tested. Once all tests have been completed, clean out your test tube and move on to the next substance.

Magnetism: Use a magnet on the outside of the test tube to see if the substance is magnetic

Solubility: Fill the test tube $\frac{1}{2}$ with water and stir...does the substance dissolve in water?

Reactivity with Na_2CO_3 : add sodium carbonate (Na_2CO_3) solution to the test tube until nearly full

Observations: (iron filings, calcium chloride, salt (sodium chloride), sand, Al powder)

Substance	A	B	C	D	E
Solubility in water					
Magnetism					
Reactivity with Na_2CO_3					
Boiling Point					

POST-LAB / ANALYSIS QUESTIONS:

1) Classify each property as either a physical property, or chemical property. Provide evidence to support your answer. (Hint: is a new substance formed when observing the property?)

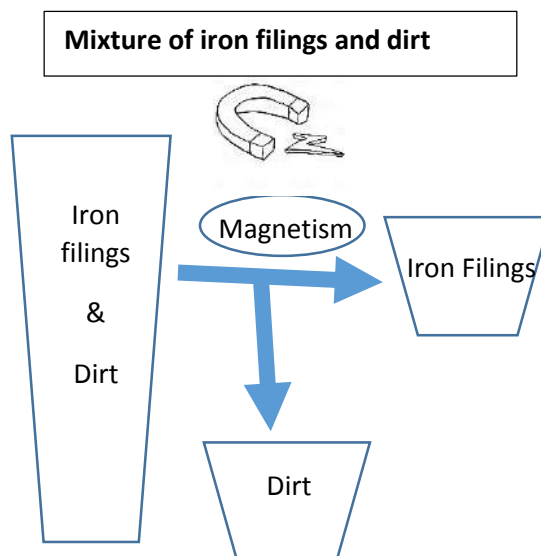
Property:	Physical or Chemical?	Evidence?
Magnetism:		
Solubility:		
Reactivity with sodium carbonate (Na_2CO_3):		
Boiling point:		

POST-LAB ANALYSIS:

For each mixture, draw a diagram showing how to separate the mixture using the physical, or chemical properties of the substances. See example on right. Each diagram should include:

- **Labeled starting mixture**
- **Separated substances**
- **Circled PROPERTY used to separate**
- **Picture, or label of equipment used to separate**

A) Mixture of A and B



B) Mixture of C and E

C) Mixture of B and sugar (Assume sugar does not react with NaCO_3)