

Name: _____
Lab Partner: _____



LAB 11 - Pure Substance or Mixture?

BRAINSTORM (5 min):

1. What is your own definition of a pure substance?
2. Give an example of two (2) pure substances, and why you think they are pure.
3. What is your own definition of a mixture?
4. If you were given an unknown sample of matter, how could you tell whether it was a Pure Substance or a Mixture? (*What could you look for or test for?*)

MISSION POSSIBLE (25 min):

⇒ Your task is to investigate samples A-H *as fully* as possible. Record your observations, classify each as either a pure substance or mixture, and list the evidence for your classification. (*You are not just guessing...*)

SAMPLE	OBSERVATIONS	PURE SUBSTANCE or MIXTURE?	EVIDENCE – How did you reach your conclusion?
A			
B			
C			
D			

TABLE CONTINUED....

SAMPLE	OBSERVATIONS	PURE SUBSTANCE or MIXTURE?	EVIDENCE – How did you reach your conclusion?
E			
F			
G			
H			

QUESTIONS FOR REFLECTION:

1. How can the properties of pure substances be used to discover whether a sample is a mixture?
2. Were all the samples mixed well? (List the ones that were not, if any.) How did the extent of mixing affect your investigation?
3. What do you think would happen if you heated the blue liquid? What, if anything, do you predict would be left if all the liquid evaporated?
4. What would happen to the color of the solution if you added more water to it? How does this compare with a pure substance?
5. Does the appearance of a pure substance (such as water) change when more of the pure substance is added?
6. If you are not satisfied with your original definition of a **pure substance**, write a new one below.