FLINN SCIENTIFIC

Name_____

Instant Hot Air Balloon Worksheet

Observations

Discussion Questions

1. Describe several possible ways the mini hot air balloon could be altered to make it float.

2. According to the kinetic molecular theory, temperature is related to the average kinetic energy of particles. Describe the effect of heating the balloon on the kinetic energy of the gas particles and the overall volume of the balloon.

3. Why does the balloon model in this demonstration float?

4. How is the balloon in this demonstration similar to a hot air balloon? How is it different?

Name_____

Pink Panther Breath Worksheet

Observations

Discussion Questions

1. What gas molecules are present in the "empty" bottle at the bottom of the demonstration setup?

2. Describe the evidence from this demonstration that these invisible gas molecules are always moving.

3. What is the term given to the effect that occurred during this demonstration?

Name_____

Molecular Motion Demonstrator Worksheet

Observations

Discussion Questions

1. What do the BBs in this model represent?

2. Describe the nature of each state of matter as represented by the BBs.

3. Describe how the different states of matter are alike and how they are different.

4. What occurs when a solid metal is heated and then cooled slowly?

5. What occurs when a solid metal is heated and then cooled rapidly?

6. Describe the process of tempering.