

Student directions: *Balloons and Buoyancy* **How do gases in different containers behave in gases fluids?**

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Learning Goals: Students will be able on a molecular level to

1. Explain why a rigid sphere would float or sink.
2. Determine what causes helium balloon to rise up or fall down in the box.
3. Describe the differences between the hot air balloon, rigid sphere, and helium balloon.
4. Explain why a hot air balloon has a heater.

Directions:

- Make sure that you put some gas in the sphere, balloons and container so that you are representing real situations.
- Don't vary the gravity for this activity.
- For each learning goal, do experiments and then use specific examples to write in paragraph form with illustrations explanations to demonstrate the goal. Include data to support your ideas.