

Activity: Falling for Gravity

In this set of activities, you will investigate and compare the rate that different objects fall to the ground. For this experiment, you will need to work in small groups.

Part 1

Materials

- Feather
- Golf ball
- Paper
- Ping pong ball
- Baseball
- Scale

Procedures

1. Choose two different objects for each trial experiment and record their identity and weight on the Data Collection Sheet.
2. Record your prediction about whether one object will fall faster or if they will fall at the same speed.
3. Hold each pair of objects at the same height above the ground, release at the same time and record your observations.
4. Explain your observations and whether your predictions were correct.

Part 2

Materials

- Two sheets of paper

Procedures

1. Tightly crumple a sheet of paper into a tight ball and loosely crumple another sheet into a larger ball.
2. Hold each ball of paper at the same height above the ground, release at the same time and record your observations.

Observation:

Assuming that each ball of paper has the same weight or mass, why do they fall at different speeds? Be specific.

Part 3

Materials

- Sheet of paper
- Textbook about the same size as the sheet of paper

Procedures

1. Hold the textbook and the sheet of paper horizontally at the same height above the ground, release both at the same time and record your observations. Note: do not drop the book on its edge to protect it from damage.

Observation:

2. Place the sheet of paper on top of the textbook and hold the pair horizontally above the ground. Release the objects and record your observations.

Observation:

Why did both objects fall at the same speed during the second trial?

Part 1: Data Collection Sheet

Object 1 & weight	Object 2 & weight	Prediction	Observation	Explanation