

Grade 2 Week 8

GALILEO'S THEORY

In the 1590's, a scientist named Galileo put forward the theory that all objects fall to earth at the same speed no matter what they weigh. Try to prove this theory yourself in this experiment.

MATERIALS:

heavy ball bearing
marble
metal cookie tray
a safe chair or step ladder to stand on

****NOTE:** The ball bearing and marble can be substituted with a cube of sugar and a die or a sponge ball and a tennis ball. Choose objects that are the same size and shape but different weights.

PROCEDURE:

1. Place the tray on the floor in front of the chair or ladder.
2. Stand on the chair above the tray. (Ask an adult to stand near you so you won't fall).
3. Hold the ball bearing in one hand and the marble in the other.
4. Hold your arms as high as you can and drop the objects down onto the tray. (It is **IMPORTANT** to let go of both objects at the same time).
5. Listen for the sound of them hitting the tray.
6. Which one lands first? Record your observations.
7. Try other objects to test Galileo's theory.

HOW IT WORKS:

In doing this experiment you should find that your objects land together. **GRAVITY** pulls them down to earth at the same speed, even though one is heavier than the other.