

Astronaut in a Bottle Activity

Create microgravity in your classroom using some simple materials

Materials

- 2-liter clear plastic bottle
- Colored tape or marker
- Paper astronaut
- Cardboard or card stock
- Hole punch or sharp scissors
- String
- Camera/phone to film in slow motion (if desired)

Key Concepts

- Free Fall
- Microgravity

Instructions

- Cut out a piece of cardboard or card stock in the same size as the paper astronaut
- Glue the paper astronaut to the cardboard or card stock
- Create a thick stripe on the bottle with tape or the marker
- Punch or cut a hole in the paper astronaut
- Attach the string to the cardboard astronaut
- Hold the string in the neck of the bottle with a finger so the astronaut is even with the line
- First, release just the string and hold the bottle
- Observe the astronaut **falling to the bottom of the bottle**
- Then, reset and release the string and bottle together
- Observe the astronaut **falling with the bottle** during the drop – have a student or friend film this to see the concept in slow motion!