

Swinging Tray

Student Data Sheet

Team Name: _____

Team Members: _____

Overview

Knowing that gravity is responsible for keeping satellites in orbit leads us to this question. Why do astronauts appear to float in space? The answer is simple. The Space Shuttle orbiter falls in a circular path about Earth and so does everything in it.

Procedure

1. Observe the demonstration presented by your teacher.

Questions

1. What do we call the path that the tray moves in?

2. If the strings are held at a shorter distance to the tray, shortening the tray's orbit, what happens to the speed of the tray?

3. Pulling on the string is acting as a force called what?

4. What would happen if the centripetal force in this experiment were removed by cutting the string?
