

Objectives

- Observe the relationship between apparent weight and acceleration.

Materials

- Spring scale
- Mass of approximately 100 g

Procedure

1. Hang the mass from the spring scale. The scale will measure the force applied to hold the mass in place. This is the weight.
2. What is the weight of your mass? _____
3. Carefully watch the spring scale as you quickly move the scale upwards. What happens to the weight?

4. Carefully watch the spring scale as you quickly move the scale downwards. What happens to the weight?

5. Which measurement is the true weight? _____
6. The other weights are called apparent weight and is what you feel as the net force pulling you down. An upward acceleration produces a _____ apparent weight. A downward acceleration produces a _____ apparent weight.