

Rotating Stool and Masses

Conservation of Angular Momentum – Activity 2

Estimated Time for Activity: ~10 minutes

Optional Objectives:

The students will:

- Understand the effect that radius has on the rotational velocity of a body
- Understand the term [moment of inertia](#)
- Use conservation of angular momentum to understand relation between distribution of mass and rotation velocity

Materials:

- Rotating platform
- Stool
- Masses
- Volunteer

Optional Vocabulary:

- Radius
- Moment of inertia
- Rotational velocity
- Conservation of angular momentum

Procedures:

- Ask for volunteer.
- Have volunteer sit on stool and hold two 1 Kg masses in each hand.
- Have student hold out masses and legs.
- Spin student slightly.
- Have them bring their arms and legs in and observe the increase in angular velocity.

Optional Post-Activity Question(s):

- Why does the volunteer speed up when mass is close to the body?