

Disk and Hoop Down a Ramp

Estimated Time for Activity: ~8 minutes

Optional Objectives:

The students will:

- Understand the conservation of energy (linear and rotational)
- Gain insight into the moment of inertia

Materials:

- Ramp
- Hoop
- Disk

Optional Vocabulary:

- Moment of inertia
- Rotational kinetic energy
- Kinetic energy
- Potential energy

Procedures:

- Set up ramp.
- Ask students which they think will reach the bottom first, the hoop or the disk.
- Let them both go.

Optional Post-Activity Question(s):

- Which one reached the bottom first?
- Can it be proven using moment of inertia and conservation of energy?