

Slug Gun

Slug Gun

Time Taken: ~5-10 min

Objectives: (optional)

The students will:

- Understand the concept of conservation of momentum
- Use the conservation of momentum to gain insight into what will happen with 1 or more body problems.

Materials:

- Slug gun
- Slug
- Matches
- String

Vocabulary: (optional)

- Momentum
- Conservation

Procedures:

- Pull the lever back on the gun and place the provided string around the lever and the set screw.
- Place the slug in the gun
- Ask students what is the system (i.e. gun and slug) and what is the initial momentum of the system (have them write it out)
- Light a match and burn through the string
- Observe the slug fly forward and the gun move backward

End of activity questions to ask: (optional)

- Ask why the gun moved backward