SIMPLE MACHINES

Description:

Participants will be asked to identify, use and answer questions about simple machines.

Number of Participants: 2

Approximate Time: 45 minutes

The Competition:

Each participant will move from one station to another for up to 15 stations. Each station will contain a picture or example of a simple machine. The student will be asked to identify the machine and answer a question about it, or use equipment to measure some variable such as length, force or weight.

The simple machines involved are:

1. Lever
2. Inclined Plane
3. Pulley
4. Screw
5. Wheel and Axle
6. Wedge

Students must move at the indicated time to ensure that all teams have equal opportunity to use the equipment at each station (2 minutes per station). An answer sheet will be provided.

Scoring:

The scoring of the event will be based on the number of correct responses.

Sample Questions:

There is a drawing or a sample of a lever at a station. The student will be asked:

1. What simple machine is being used?
2. The point of support on this simple machine is called _____?
3. What is the length of the effort arm in centimeters? _____

There is a setup of an inclined plane with a mass on it and a meter stick available.

1. What simple machine is being used?
2. Calculate a problem knowing that work equals force times distance.