

# Wall Pulley

for STEM in the Gym™

**User Guide**



## **Materials Included**

- 55-pound single pulley
- 280-pound, 5/8" latch
- 1" eyebolt with screw
- 1" eyebolt (for masonry)
- 25' of 1/2" rope

## **Items Required (not included)**

- 18" to 24" scooter with hole or handle

### **Setting up the Wall Pulley**

First, anchor the eyebolt into the wall. If in a school, be sure that authorized personnel install the device (Figure 1).



*Figure 1*

1. Unscrew the threaded connector so that there is an opening big enough to go over the eyebolt (Figure 2). Slide the pulley hole onto the connector (Figure 3).
2. Slide the threaded connector over the eyebolt and retighten the connector (Figure 4).



*Figure 2*



*Figure 3*



*Figure 4*

3. Tie one end of the 25' rope to a scooter (must have a hole or handle) (Figure 5).
4. Take the other end of the rope and thread it through the pulley and back out to the scooter (Figure 6).



Figure 5



Figure 6

## **Using the Wall Pulley**

**Note:** This activity requires two students.

1. Student 1 sits on the scooter while Student 2 holds the loose end of the rope (Figure 7).

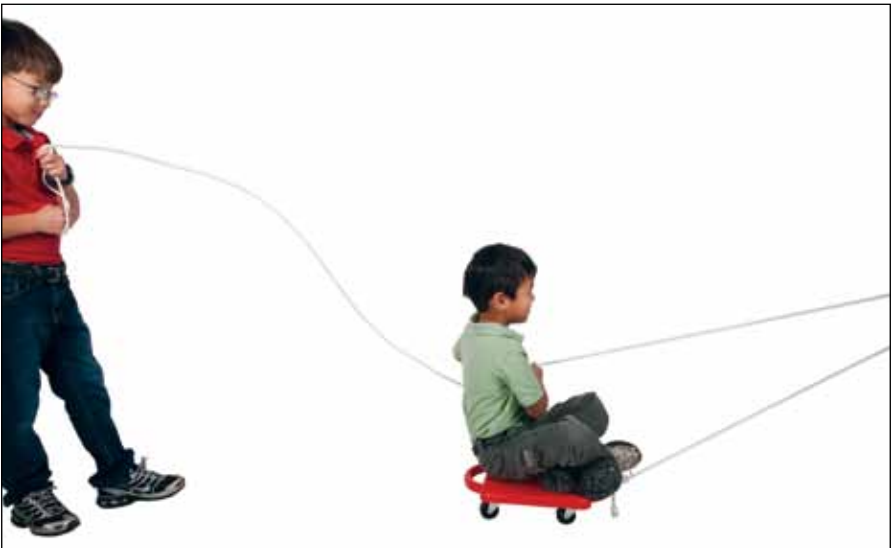


Figure 7

2. Student 1 pulls on the rope to propel his- or herself toward the wall (Figure 7a). As Student 1 is pulling, Student 2 takes up the slack in the rope to keep it from tangling (Figure 7b).
3. Upon reaching the wall, Student 1 one gets off the scooter and walks the scooter back to the starting point.



Figure 7a



Figure 7b

## Curriculum

For curriculum to lead a more in-depth activity with the Wall Pulley, consider *STEM in the Gym – Simple Machines* book available at [shop.pitsco.com/STEMnGym](http://shop.pitsco.com/STEMnGym).

## Safety

- Use this device only in the manner discussed and illustrated in this guide.
- Be sure the eyebolt has been installed properly by qualified personnel.
- Use only the rope provided.
- Do not exceed a load of 100 pounds on a scooter being used in conjunction with this system.
- Do not attempt to use the system to pull any load straight up.
- Remove the threaded connector and pulley when the system is not in use.