Matter

Important Things to Know

Matter is anything that has

_____ and takes

up _____.

Matter is made from:

The states of matter are:

One way to change a substance's state is to change:

Inclined Planes & Wedges

Important Things to Know

Work is done when a

_____ that is applied to

an object _____ the

object.

A simple machine is a device

that makes _____ easier.

A force is a _____ or a

_____.

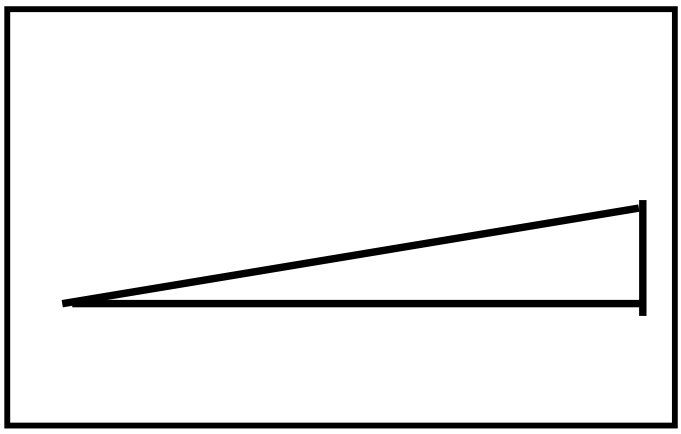
Lab Worksheet

Lab No. 2: STEM Challenge Using Inclined Planes and Wedges

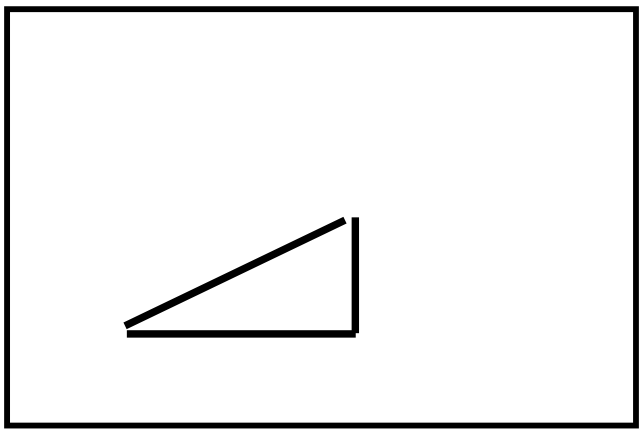
Step One: Record the force (in number of newtons) used to lift the baggie off the table to a height of twelve inches:

---------- newtons

Step Two: Predict which of the two ramp styles below will allow you to use the least amount of force (in newtons) to bring the baggie to a height of twelve inches off a table, and circle it below.



Ramp Style A: Longer with a more gradual slope



Ramp Style B: Shorter with a steeper slope

Step Three: Record the newtons used to pull the baggie up each ramp below:

Ramp Style A: _____ newtons Ramp Style B: _____ newtons

Step Four: Compare the data you collected to answer the questions below. Circle your answers.

Did using a ramp reduce the amount of force (in newtons) required to bring the baggie to a height of twelve inches?

yes no

Which of the two ramps allowed you to use the least amount of force to move the baggie to a height of twelve inches?

Ramp Style A Ramp Style B