

Lab Sheet: Moving a Load

Materials	<ul style="list-style-type: none">• A ruler or metre stick (the rule should be at least 30 centimetres (cm) long)• Stack of books (10-15 depending on their size. The stack should be up to 12 inches or 30 centimetres tall)• A heavy book or another object that can be used as a load• String (enough to wrap around and lift your load)
Prediction What do you think will happen?	Use pictures and/or words to record your prediction(s).

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Steps	<p>Step 1: First, stack the books in a pile.</p> <p>Step 2: Then, tie the string around the heavy book (load) and try to lift it on top of the stack of books. Record your observations.</p> <p>Step 3: After that, create a ramp by resting one end of the ruler on top of the book stack and the other end on a table.</p> <p>Step 4: Finally, place the heavy book (load) at the bottom of the ramp. Using one hand, move it up the ramp. Record your observations.</p>
Observations Consider the following questions: <ul style="list-style-type: none">• What happened?• What do you notice?• Do you think you are you using a lot of effort or a little effort?	Record what you notice using pictures, numbers, and/or words.

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Think

Consider the following questions:

- What did you predict would happen? Were your predictions correct?
- Which one required less effort? Was it easier to move the load using a string or a ramp?

Explain your thinking.

Record your ideas using pictures, numbers, and/or words.