

Team Name: _____ Date: _____

Names: _____

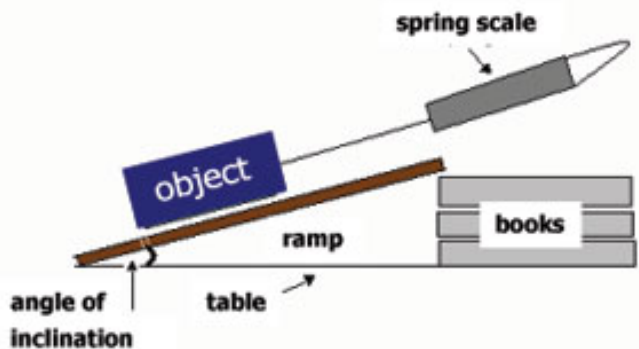
Let It Slide! Worksheet **Answers**

- Using the spring scale, find the weight of each object by pulling the object straight up into the air. Record the weight (in grams) in the table below.
- Predict which angle would be best to move the rocks up to the top of the pyramid by circling it on the chart below.

Instructions for each object being measured:

- Use a protractor and books to set your board at a 15-degree angle from the table. This creates a 15-degree inclined plane.
- Hook the object to the spring scale.
- Pull the object up the inclined plane.
- Record the spring scale measurement (in grams).
- Add more books to make your inclined plane form the next angle in the chart below.

Repeat the steps above for all the degrees of inclined planes listed in the chart below.



Object	Weight of object (in grams)	Spring scale measurement (in grams) at:			
		15 degrees	30 degrees	45 degrees	Angle of your choice

- Was it easier to move the object up the *inclined plane* at a shallower or steeper *angle of inclination*?
More shallow angle of inclination
- Which angle required the least amount of *pull force* on the spring scale to move the object up the *inclined plane*?
15 degrees or angle of your choice, whichever was smaller
- Was your prediction correct? Why or why not?
- If you were an engineer, which type of ramp would you use to move a heavy object to a high place?