**Super Hero Bungee Jump**

**Introduction**

Get students' interest by asking, “Would it be smart to lie about your height or weight?" Do you think the length of the cord and the size of the person matters when bungee jumping? Allow students to offer suggestions as to why an accurate estimate of height and weight would be important to conduct a safe bungee jump.

You can also use this video to help with the introduction to this project

Video on bungee jumping-<http://www.youtube.com/watch?v=mKIWQaW7z7Q>

**Prior knowledge students will need**

* The concept of y=mx+b

**Materials:**

* Microsoft Word
* lots of rubber bands all the same size
* toy action figures
* high place to drop the toy figures from
* container to hold water
* water
* video recorder with slow motion capabilities
* ruler or tape measures

After a brief introduction, explain the lesson by telling them they will be creating a safe bungee jump for a toy figure that will be the most enjoyable yet safe. Explain that the figure should just knick the surface of the water.

Have them start by picking there figure. Then have them go someplace they can drop the figure from a small height. Have them star with 2 rubber bands, then 4, and then 6. Have them measure each time how far it falls. Try each rubber band amount 3 times.

Insert a chart by going to insert, chart, it is the first X,Y scatter chart. Input the data from you tests and graph it. The x coordinate should be the number of rubber bands and the y coordinate should be the number of cm the figure fell. Left then right click on the y axis. Select format axis. Change the maximum from auto the set and set it to passed the height the final drop will be from. Your student then will be able to see the number of rubber bands needed to just hit the water.

Then have them go to the high place and drop them into the water. Have a person record the action figure touching the water. Later you can watch them in slow motion.

Sources-original idea-<http://illuminations.nctm.org/LessonDetail.aspx?id=L646>