

Name:

Partner's Name:

### **Disney World needs a new Roller-coaster!**

Learning Target – I will be able to use a motion detector to match and then create a time-distance graph. Represent two numerical variables on a scatter plot and describe any correlation and/or relationship between the two variables.

Introduction: Have you ever been on a roller-coaster? Today Disney World is looking for two mathematicians wanting to design new roller-coasters for their theme park! The requirements to be considered for the job will include:

- A design partner (you both will need to submit your own original designs)
- Two original and precise roller-coaster designs.
- At least one positive slope, one negative slope, and one segment with no slope in each roller-coaster design.
- An accurate simulation of your roller-coaster (using CBR and graphing calculator).
- Clear explanation of your roller-coaster and what Disney guest should expect!

Good luck!