## **English Language Arts**

Based on the construction of your ramp, write your predictions of which surface will make the car stop, go really far, or somewhere in between.

Use the attached sheets to record your observations and predictions.





# Friction Frenzy Surface 1

WQED education

Material Used:

Predictions

Observations

OR









# Friction Frenzy Surface 2

WQED education

Material Used:

**Observations** 











# Friction Frenzy Surface 3

Material Used: \_



# Observations

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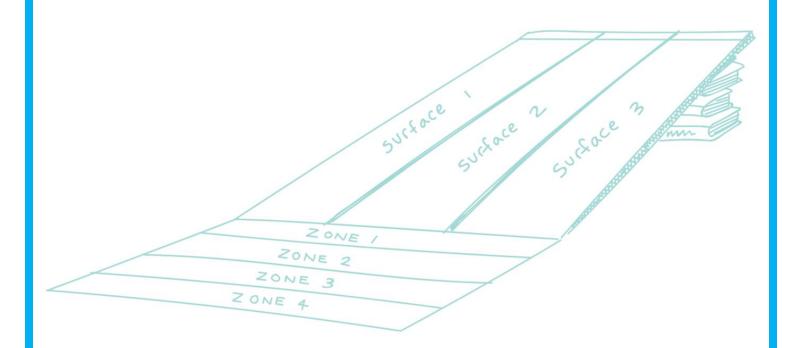




### Math

Lots of measuring today! Get your ruler/tape measure ready...

- 1. Measure how wide your board is. You'll need to figure out how many inches wide each surface lane should be so that each lane gets an equal width of the ramp.
- 2. Starting at the foot of the ramp and moving away from the ramp, tape lines 6 inches apart to serve as distance lines to help measure how far your car travels. You can mark the space between the lines as "zones" if you'd like, as the diagram shows.

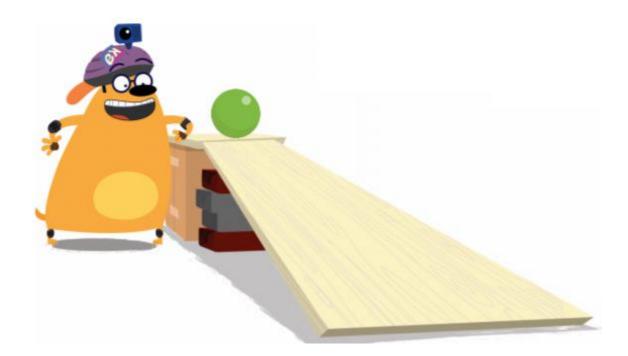




### **Science**

Time to make your ramp!

- 1. Prop your board/cardboard up about six inches high using books or other props.
- 2. Select 3 different surfaces that you'd like to test.
- 3. Measure and cut the surface materials (see the Math section) and attach them to the ramp with clips or tape.





### **Social Studies**

Part of the Engineering Design Process is planning and designing. Draw a picture of what you'd like your ramp to look like.

# **My Ramp Design**



