



# MAKER JOURNAL

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Project/Unit: Safe Crossings

Lesson: 3

*Answer the questions below on the media resources for the lesson.*

## Variables and Fair Tests

*In the baking soda investigation, what are the controlled variables? How does the experimenter control them?*

*What is the variable the experimenter is measuring?*

*Why does the experimenter repeat the experiment many times?*

*What must an experimenter do to make sure an experiment is a fair test?*

*Come up with your own example of a fair test/experiment below.*

*Draw sketches of your structure below.*

## Structure Drawings

*Be sure to clearly label the connectors and also show different views of the model (front, back, side, and top).*



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*List some variables that might affect the structural integrity of your model.*

Variables	Potential Effect on Structural Integrity
Length of straws in model	Straws are flexible, might weaken structure

*Develop a plan for conducting fair tests on your structure.*

Planning/Conducting Fair Tests
<p><i>Consider the variables you identified above. Which one(s) will you control? What will you do to test the structure?</i></p> <p><i>Fair Test #1 Results:(Identify failure points)</i></p> <p><i>Fair Test #2 Results:(Identify failure points)</i></p>