



KVSOP Bertini

Newton's Cradle Challenge

Intro: STEM DESIGN IDEA

Name _____

Date _____

WHAT IS YOUR CHALLENGE?

To design and build a working Newton's Cradle following the set criteria and constraints.

CRITERIA

LEGO bricks	Popsicle sticks
5 marbles	5 Pony Beads
Pencil	ruler
String	scissors
hot glue	

CONSTRAINTS

1-2 class period(s)
gravity
inertia

PLAN: Using LEGO bricks, design and build the framework for your Newton's Cradle. Draw your Newton's cradle in the box below. Label front, back, sides, and measurements of each.

NEWTON'S CRADLE LEGO DESIGN (blueprint)

Add to your design the placement of the 5 strings and marbles. Label. Include the length of each string.



NEWTON'S THREE LAWS OF MOTION

Identify each law. Describe where you observed each of Newton's three laws of motion. You may also add an illustration in your description.

Law #1	Observed
Law #2	Observed
Law #3	Observed

What is something that you discovered in this design process?

What was an idea that did not work well for you? Why?

What was your solution to this problem? (What would you do differently next time?)