**Systems in Science: Catapult Competition** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Class:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In our search for understanding of systems in action we have come across the awesome catapult.

Your challenge is to build your own catapult that will crush the competition in design, functionality and performance. So simply put which one looks the best, works the best and launches the farthest.

Either in partners or individually you will be designing and building your very own catapult. Be sure you meet the requirements for the size of your catapult and make sure that it will be able to handle the weight of the LARGE MARSHMALLOW which we'll launch.

Where do you start?? With research of course!!

You will need to complete some research in order to develop the appropriate design for your desired catapult, please keep in mind NO sling-shots allowed.

Requirements:

* Max Height (including launching arm): 30 cm
* Max Width : 30 cm
* Must be able to launch a Large Marshmallow

Must Haves:

* Design Layout
	+ Sketch out your desired design for your catapult, are you going to have a theme? What colours are you going to use? Will flames make it launch further?
* Materials List
	+ These are materials that you are supplying on your own, look around the house, thinks about recycling or checking out the scraps bin at your local hardware store
	+ Make sure that you explain why you have chosen the materials that you picked
* Blueprints
	+ This is a labelled diagram of your completed catapult which includes measurements, make sure that you include the proper units
* Test log
	+ Create a test log that records 10 test launches, this will allow for you to tweak your design before the final competition

Final Competition Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(you’ll have at least 2 weeks to work on this project)