

## Trebuchet Contest 2019

### Concept:

Build and test a trebuchet-type of launching device capable of flinging a practice foam golf ball.



### Materials:

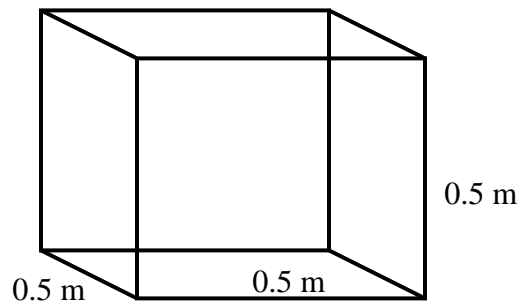
Use only materials that would have been available to an inventive medieval inventor:

Glue  
Metals  
Wood  
Natural fibers

(No plastics or rubber bands)

### Size:

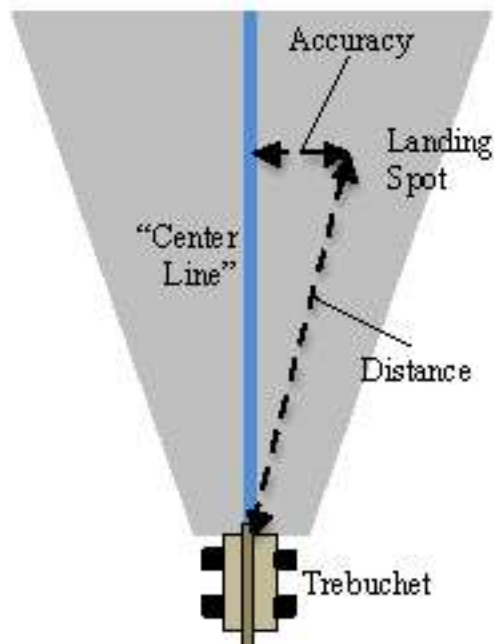
When the device is in its most compact position with the throwing arm completely assembled, it must be able to fit into a cube that is 0.5 m on each side.



### The Tasks:

1. **Distance:** Launch the projectile as far as possible.

2. **Accuracy:** During each of the launches, the distance the ball lands from a "center line" will be recorded. The smaller that distance is, the better the accuracy.



## **Scoring Rubric:**

### **Distance:**

Greatest distance = 10 points

2<sup>nd</sup> greatest = 9 points, etc.

(Note: If the trebuchet can throw any distance at all, you get 5 points.)

### **Accuracy:**

Closest to 3.0 meters = 10 pts

2<sup>nd</sup> closest = 9 pts, etc.

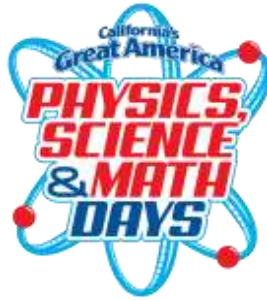
Final ranking will be based on the total number of points scored.

**Location:** Great America Pavilion outdoors

**Time:** Arrive by 10:30am for practice, 11:00am launching

Awards will be given to the top 3 for longest distances.

Please fill out the attached entry form and fax to California's Great America.



## Trebuchet Contest 2019 *Entry Form*

Print out and complete this entry form prior to the contest date at California's Great America. It will serve as your contest entry form, please make sure the names can be read easily. **Fax the completed form to (408) 986.5855, ATTN: PSM/ Trebuchet or email to [Tristan.placone@cagreatamerica.com](mailto:Tristan.placone@cagreatamerica.com).** Upon receiving your entry form, we will inform you of your entry into the contest via e-mail.

**Deadline: 2 weeks prior to your visit date**

Date attending PSM Days (circle one):    May 3        May 10        May 17

Name of Trebuchet \_\_\_\_\_

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

Grade Level (circle one):        8 or below        9-12

Teacher Name: \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

E-Mail contact address: \_\_\_\_\_

Members of the team (name/grade) **Up to 2 Team Members**

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

### *Judging*

Distance		Accuracy	
1 <sup>st</sup> try:			
2 <sup>nd</sup> try:			
3 <sup>rd</sup> try:			
<b>Maximum</b>		<b>Minimum</b>	
<b>Place</b>		<b>Place</b>	
<b>Points</b>		<b>Points</b>	
<b>Grand Total</b>			