

<p>How do I throw far?</p>	
<p>Respective blueprint</p>	<p>The Medieval trebuchet</p>
<p>Description</p>	<p>Haven't most of us taken a walk on the beach and thrown stones into the water? Or just tried to throw the stone far into the water or even try to hit a target on the water? This lesson experiments with how we can throw things far and hit a target by trying out different throwing implements used through time. The aim is to create a small trebuchet of popsicles and see who can throw the furthest and hit the most accurately.</p>
<p>Learning Objectives</p>	<p>Students learn about:</p> <ul style="list-style-type: none"> - Angles - The Medieval period -Cooperation -And understand there is a relation between the length of the throwing arm and a counterweight

<p>Related curricular subject(s)</p>	<p>Mathematics: measures, angles, History: Stone Age, Middle Ages Sports: throwing Technology: triangle construction Science: throwing arm, barbell, counterweight</p>
<p>Prerequisites / preparatory actions for teachers</p>	<ul style="list-style-type: none"> - Produce a class chart to record throws with a ball and throws with the Trebuchet -Find materials for the construction of the mini-trebuchet - Consider whether students should watch video sequences with real trebuchet? Available here: https://www.youtube.com/watch?v=PzQCcWVsiNw https://www.youtube.com/watch?v=M1iPxY3FYNE&t=306s In French: https://www.youtube.com/watch?v=q_u9_K5oUjg <p>Students will benefit more if the course is part of a context where, for example, the overall theme could be the Middle Ages, castle arm, or similar.</p>

Prerequisites / preparatory actions for students	None
Age of students	From 10 to 15 years old
Duration	2 hours
Level of difficulty	Medium

Step by step description of the tasks

1: Go outside and let the students start with a little warm up of the arms and shoulders.

Throw 1 tennis ball as far as they can. Pupils can find a method of measuring the throw, e.g., measuring with tape measure, steps, or another method?

2: Introduce pupils to the throwing arm of the dog's ball. Let students try the throwing arm and measure again

What happened? and why?

3: Go inside and present the pupils with a short lecture on powerpoint about the throwing implements of the past:

- the Stone Age sling**
- the Stone Age throwing spear**
- spears such as Roman spears**
- the Medieval trebuchet**

Slinging is not recommended as it is a dangerous weapon

Spear throwing can be quite a difficult exercise for young children

	<p>4: Building the Mini Medieval Trebuchet</p> <p>5: Test throw with the trebuchet</p> <p>You can possibly make a competition in:</p> <ul style="list-style-type: none"> - how far they can throw - who can hit the most accurately (make a target board) <p>Note: Building the trebuchet can be very engaging and they may easily want to try building large models, but please be aware; it can be quite a force you unleash, and the activity can suddenly become dangerous!</p>
<p>Assessment activities</p>	<p>To produce a trebuchet capable of throwing an object forward 3 times.</p>