

CATAPULTS, ANGLE MEASUREMENT, AND DISTANCE

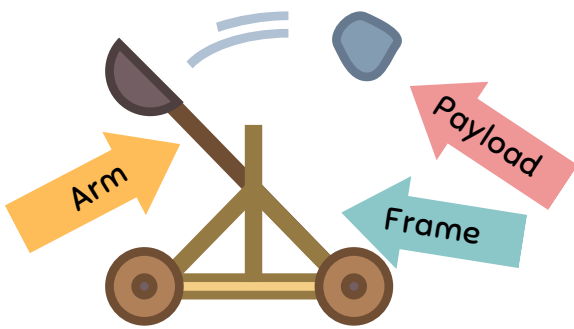
Name:

Date:

OBJECTIVES:

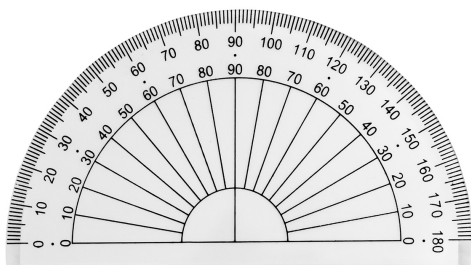
1. Compare the angle of the arm to the distance the payload goes.
 2. Can you determine an angle that will get the payload to go the greatest distance?
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VOCABULARY:



Catapult

an ancient military device for hurling objects



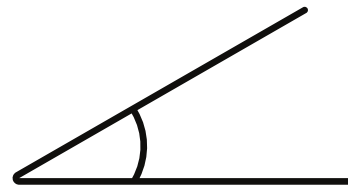
Protractor

measures angles in degrees

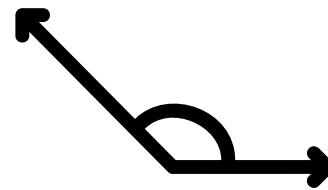
Angle

formed when two lines meet

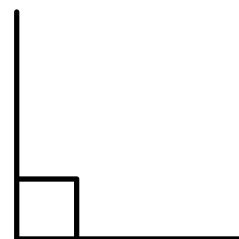
Acute angle $< 90^\circ$



Obtuse angle $> 90^\circ$



Right angle = 90°



MATERIALS:

- popsicle sticks
- tape/glue
- ruler
- protractor
- plastic spoons
- rubber bands
- payloads (marbles)

STEPS:

1. With a partner, build the catapult.
2. Take turns measuring the angle of the arm, firing the catapult, and measuring the distance of the projectile.
3. Record your data on your worksheet.
4. Compare results with the class.

DATA TABLE:

	Angle Measured	Distance Measured	Notes
Test 1:			
Test 2:			
Test 3:			
Test 4:			
Test 5:			
Test 6:			
Test 7:			
Test 8:			