

## Catapult investigation

**Catapults** of various sizes have been used in **warfare in the** middle ages. Technically, a **catapult** is any device that can hurl a projectile **without** the use of a chemical power source. They range from hand held catapults that rely on **rubber bands** right up to huge catapults that could launch large boulders and smash through castle walls.

Given below is the data for an investigation conducted to test the distance travelled based on the pull distance of the catapult.

Pullback distance (cm)	Distance travelled (m)			
	Trial 1	Trial 2	Trial 3	Average
9	3.47	3.33	3.31	3.4
12	4.41	4.26	4.53	4.4
15	5.68	5.72	5.66	5.7
18	6.77	6.91	6.83	6.8
21	7.98	7.9	7.65	7.8

1. Identify the following

- Aim
- Variables

2. Plot a Graph for the above data.

3. Analyse the graph and identify the distance travelled, if the pull distance of the catapult was 20cm.

4. Discuss the investigation.

- Scientific idea behind the investigation
- Factors that could affect the investigation
- Reliability of the data