

OBSERVATIONS					
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Paper Projectile

A projectile or dart is an object that is forcibly thrown or projected at a target. As a part of this TACTivity, you would have made different types of paper darts along with a launcher and sextant (an angle measuring device). Make observations as you blow the paper darts through the launcher and note them down in the tables below.

Path Taken by the Paper Dart

Select any object around you as a target. Hold the launcher at different angles and blow the paper dart (pointed/partially blunt/cylindrical) towards the target. Predict and observe the shape of the path taken by the paper dart as it moves towards the target. The options are **A** – Steep U / **C** – Flat U / **E** – Steep V / **K** – Flat V / **L** – L shape / **M** – Random / **N** – Straight line

#	Angle	Prediction	Observation
01	0°	<input type="checkbox"/>	<input type="checkbox"/>
02	30°	<input type="checkbox"/>	<input type="checkbox"/>
03	60°	<input type="checkbox"/>	<input type="checkbox"/>
04	80°	<input type="checkbox"/>	<input type="checkbox"/>

Impact of Paper Dart Design

Use a newspaper as the target or dartboard. Predict and observe the impact that each of the paper darts have on the target. The options are **A** – Pierces the target / **C** – Does not pierce the target

Follow the below instructions

1. Hold the target at an arm's length.
2. Set the angle on the sextant to 0°.
3. Blow the paper dart forcefully through the launcher, towards the target.

#	Paper Dart Type	Prediction	Observation
05	Pointed	<input type="checkbox"/>	<input type="checkbox"/>
06	Partially blunt	<input type="checkbox"/>	<input type="checkbox"/>
07	Cylindrical	<input type="checkbox"/>	<input type="checkbox"/>

Impact of Increasing the Thickness of the Target

From the previous table, you would have understood what impact each of the paper darts have on the target. Select the paper dart which was able to pierce through the target. Predict and observe what impact the thickness of the target has on the piercing ability of the paper dart.

The options are

A – Pierces the target / **C** – Does not pierce the target

Follow the below instructions

1. Hold the target at an arm’s length.
2. Set the angle on the sextant to 0°.
3. Blow the paper dart forcefully through the launcher, towards the target.

#	Thickness of the Target	Prediction	Observation
08	Folded once	<input type="checkbox"/>	<input type="checkbox"/>
09	Folded twice	<input type="checkbox"/>	<input type="checkbox"/>
10	Folded thrice	<input type="checkbox"/>	<input type="checkbox"/>