Smart
Analytical Science Students

- Always be open to other people's idea's

-Stay on task and don't get behind

-Always support the group effort

Team: A number of persons associated in some joint action to complete a common goal.

Teamwork: When people work together to complete a common goal

BE SUCCESSFUL

Paper Airplane Project

Understand

- The purpose of this project is to learn about the design thinking process.

- Requirements:

1. Make a prototype paper airplane using 1 sheet of paper, 3 staples, 1 dab of glue and 1 paper clip

2. Refine the prototype until the final product is satisfactory

3. Build a large scale model by scaling everything up by 6.

Explore

- We brainstormed many designs, and decided on a couple of them. One was long and skinny with short wings, and the other was shorter in length but had much wider wings.
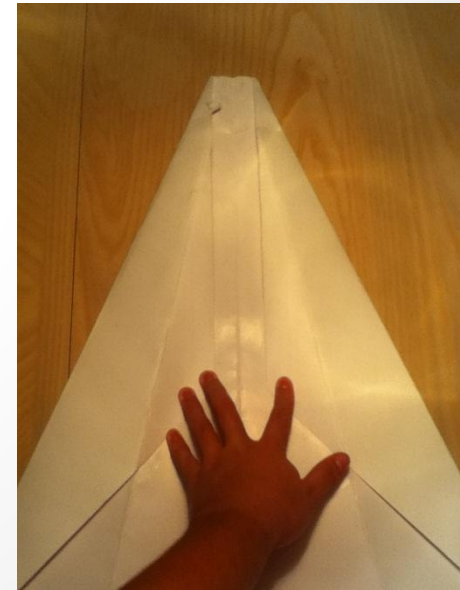
Define

- After making many prototypes for both distance and hang time we decided on a prototype that excelled in both areas compared to our other prototypes.

- It was successful because it was balanced and had wings that had a large surface areas

Ideate

The most critical part of our design process was the fact that our paper airplanes first corner folds were not to the middle crease

This allowed for the tip to be flat instead of pointed which was a crucial part of the design
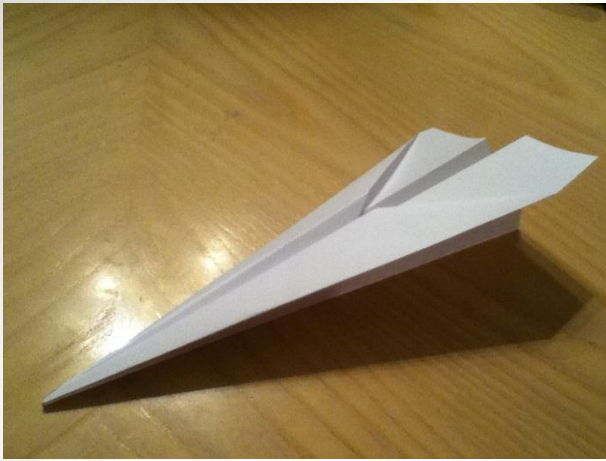
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Prototypes

- We made a lot of prototypes, these are some of the ones that flew the best, then we needed to choose between them.

Plane	Distance	Time
Plane 1	19.5 ft.	1.3 sec.
Plane 2	21.3 ft.	1.7 sec.
Plane 3	13.2 ft.	1.1 sec.
Plane 4	28.9 ft.	2.4 sec.
Plane 4 Big scale	76.2 ft.	2.98 sec.

Refine

- We chose this one, it flew the best and we needed to make modifications to it. We tried taping the wings, but that made it dip down too fast. We tried bending the wings, but that didn't help either. We kept it simple and used tape on the tip and a little on the back.

Solution

- We made the Large scale exactly like the small scale. They are identical in everything but size.