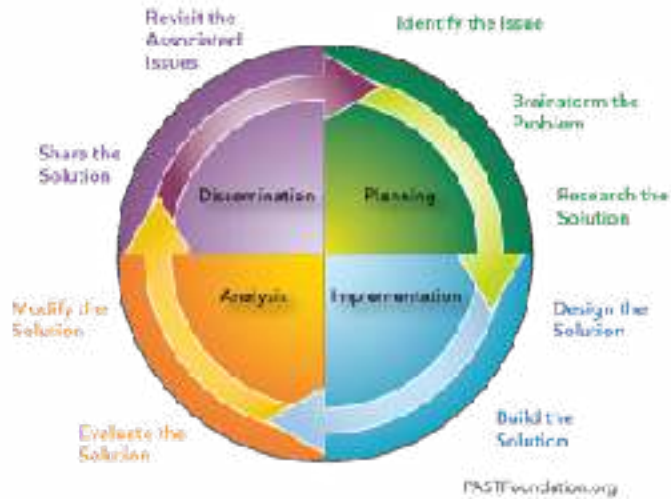


Paper Airplane Mini Challenge

Name: _____

Date: _____



Problem Scenario:

A small Alaskan town has mail and groceries delivered weekly by small planes. Depending on the wind speed and direction there are two different ways the airplanes approach the small airstrip and land. One approach is straight and simple. The other requires the pilot to turn 90 degrees during approach then land quickly.

Challenge:

Design an airplane that will:

- 1) Fly as far and straight as possible
- 2) Fly forward and make a turn around an obstruction

Criteria:

- Variety of different sizes and types of paper
- Be able identify how the construction of your plane makes it turn or fly straight and how far--including the weight of the plane.

1. Brainstorm: Use the space below to brainstorm the design and approach to building a paper airplane.

- How do planes fly?
- What makes a plane turn?
- Why do planes not fall from the sky?
- Does weight impact the speed and stopping distance of an airplane?

2. Design:

- What does your airplane look like?
- Identify the parts of the plane that will make it fly straight or turn.

4. Evaluate:

Test your airplane and evaluate how well it works. Determine what changes need to be made to improve your airplane. Document the flight pattern and distance that the plane flies.

5. Modify:

Create different iterations of the plane by modifying the wing length and the delivery of the plane.

3. Build:

Follow your design and build your airplane.

6. Share:

Share your creation on Social Media!

Tag us on Facebook, Twitter or Instagram @pastfoundation

Use the hashtag #ThisIsPAST or #DesignThinking