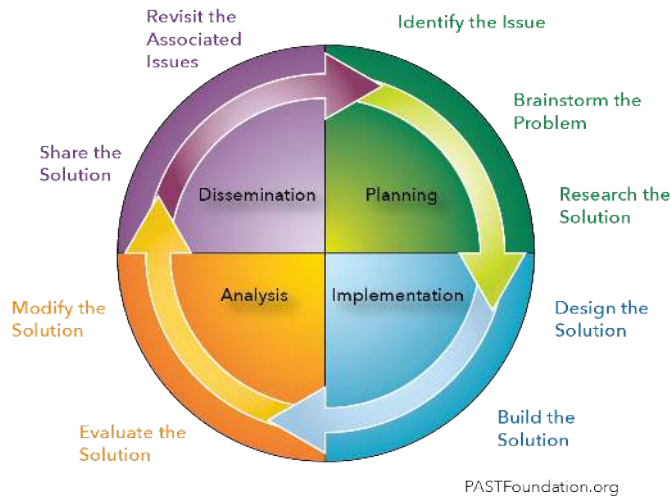


Blooming Flower Project Mini Challenge

Name: _____

Date: _____



Problem Scenario:

Flowers need sun to grow, but they need water to grow. Flowers absorb water through the xylem, a tissue of thin tubes found on the outer stem of plants. Its job is to transport water and nutrients from the roots to all areas of the plant. What happens when a flower absorbs water? Paper absorbs water acting as the xylem in a flower.

Challenge:

How can you create a blooming flower and show the process of the xylem absorbing water in a plant?

Supplies:

- Printer and paper/Scissors/Crayons and/or colored pencils /pencils
- bowl/water/towel or paper towels

1. Brainstorm: Use the space below to brainstorm the design and approach to building a blooming flower.

- How does a flower absorb water?
- What happens to a flower with too much water?
- What happens to a flower with too little water?
- Do different types of flowers absorb water at different rates?

2. Design:

- Cut out the flower squares (in the build section) along the thick black dashed lines.
- Fold the square in half along the thick solid black line so the that pattern is facing out.
- Pull up the corner with the sun until the edge meets the dark grey area and fold. Pull the top left corner down until it meets the bottom edge and fold.
- Cut along the two dashed lines.
- Unfold to see your flower!
- Color and decorate your flower using colored pencils or crayons (markers will bleed into the water) Pull the tip of each petal until it meets the center circle and fold. Repeat for all petals. Place your flower with the petals facing up into a shallow bowl of water.
- Observe!

3. Build:

(See attached template)

4. Evaluate:

- What happened when you put the flower into the water?
- How did the flower bloom?

5. Modify:

- Choose different types of paper to create your flower (card stock, construction paper, tissue paper, etc)!
- How does the flower bloom differently than your original flower?

6. Share:

Share your creation on Social Media!

Tag us on Facebook, Twitter or Instagram @pastfoundation

Use the hashtag #ThisIsPAST or #DesignThinking

3. Build:

