Climate Change Design Mini Challenge
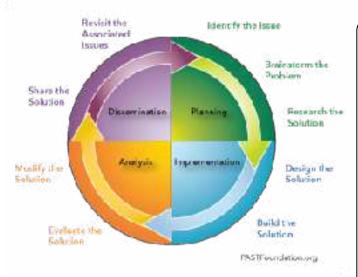

Problem Scenario:
When water evaporates from the ocean the water gets carried over land by wind. When this water falls to the ground we call it precipitation. The city is concerned that global warming can lead to more precipitation and wonder what the ramifications could be and how to prepare. They hire you, an environmental scientist working as a consultant, to predict damages to the cities' infrastructure and safety.

Challenge:
What will happen to our town if it begins to rain a lot more? How can you put preventative measures in place to insure a stable climate?

Criteria:
- graph paper/ crayons/markers
- BE able to identify the current infrastructure in your community: storm drain placement, outlet.
- Research and chart weather (precipitation/ temperature) over the last 50 years for your community.

1. Brainstorm: Use the space below to brainstorm the design and approach to building a plan for creating a stable climate

- There are a number of facts you need to know to be able to give your report:
- How much does it rain in our town now? What happens when we get a lot of rain? What happens to the river?
- What happens to the growing season? What report format would work the best for the city council?

2. Design:

- Collect dates and rainfall data since you were born, since your mother/father was born, since your grandmother was born...
- How high are the banks above the water level of the river?
- Collect the names of types of crops that are grown around your town.
- Discuss which crops would not be able to grow if the rainfall increases.
- Who would you ask for this information?

3. Build:

- Plot the rainfall data on a graph.
- Show in an annotated drawing with numbers and labels showing how high the river has to be to go over the top of the bank.
- Create a table of crops that could grow with more rainfall and crops that could not grow

4. Evaluate:

Create a checklist for the graphs, annotated drawings, and tables to evaluate if you have everything you need.
Give your graphs to another person to evaluate against the checklists.

5. Modify:

Modify your products as needed.

6. Share:

Share your creation on Social Media!

Tag us on Facebook, Twitter or Instagram @pastfoundation

Use the hashtag #ThisIsPAST or #DesignThinking