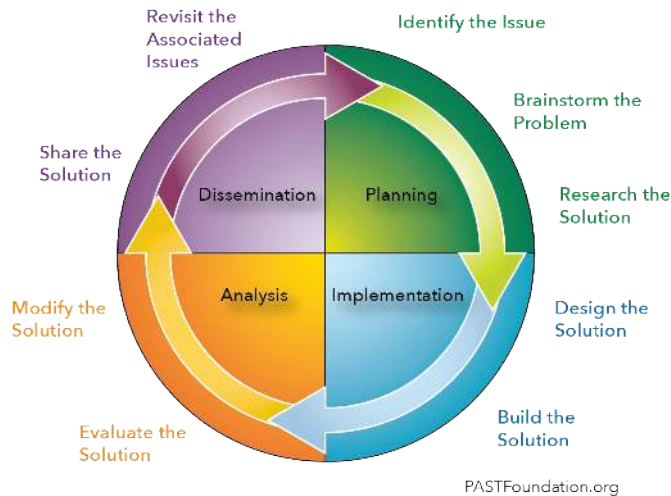


# Plastic Cup Pyramid Mini Challenge

Name: \_\_\_\_\_

Date: \_\_\_\_\_



## Problem Scenario:

Scientists often need to move things that cannot be touched (think boiling water, radioactive material, or deadly viruses).

**Challenge:** Your task in this Mini Challenge is to create a tool that will allow your group to stack six cups into a pyramid in the least amount of time.

## Criteria/Supplies:

- 4 pieces of string (2 @ 12", 2 @ 16")
- 1 rubber band (length doesn't matter as long as every group has the same size)
- 6 plastic cups
- Groups **MUST** use all materials and work collaboratively in the build
- No one may touch a cup (even if it falls to the floor)
- Only the tool may touch any cup after the competition begins
- All group members must aid in moving all cups (every time a cup moves)

**1. Brainstorm:** Use the space below to brainstorm the design and approach to building the cup pyramid.

- Why is it important to not touch chemicals in a laboratory?
- Are there different composites of materials that tools should be constructed of for laboratory work?
- What is a pyramid?
- How were the pyramids in Egypt constructed?
- How much personnel is required to construct a pyramid without modern equipment?

## 2. Design:

Sketch the tool that the group will be using to stack the cups.

- How will the group work together?
- How are each of the materials being used and for what purpose?

## 4. Evaluate:

- Have you created a pyramid?
- What is the definition of a pyramid?
- Did every member of the group contribute? If so, how?
- What worked? What didn't work?

## 5. Modify:

If the group lost one member how can the tool be modified to still get the job completed?

If the strings were longer or shorter does it make the task easier or more difficult?

## 3. Build:

This may be done as a competition or timed.

## 6. Share:

Share your creation on Social Media!

Tag us on Facebook, Twitter or Instagram @pastfoundation

Use the hashtag #ThisIsPAST or #DesignThinking