

Paper Cup Challenge

Materials

- 2-3 large basins filled with water
- 2 measuring cups per basin
- several towels
- 1 small towel
- 5-10 pieces of 8 1/2" × 11" paper (recycled if possible)

Instructions

1. Design and construct a paper container by using paper only.
2. Work in groups of 3-5 students. Brainstorm together, and draw out your designs below. Teams may create as many as six designs, with each being recorded in the chart for data collection.

Design #1	Design #2	Design #3
Design #4	Design #5	Design #6

3. To test the prototype, the first member must hold the cup for thirty seconds and then pass it to another team member. *When the count starts, no additional water may added to the cup.* The second team member must also hold it for thirty seconds.

4. After a minute is up, the team should pour the remaining water into the measuring cup and record the results on a sheet of paper.

Cup Description (Materials Used)	Amount of Water at Start of the time (Must be the same for all tests)	Time Allotted (Must be the same for all tests)	Amount of Water after the time has concluded
Design #1:			
Design #2:			
Design #3:			
Design #4:			
Design #5:			
Design #6:			

5. Questions to consider: Which cup retained (kept) the most amount of water after the allotted time was completed. Why do you think that cup performed the best?

6. Each team will demonstrate their best design for the rest of the group, encouraging discussion of the different solutions, as well as failures and discoveries during the design and testing process.

Resources:

<http://teachers.egfi-k12.org/lesson-paper-cup-challenge/>