

Water Water Everywhere, and Not a Drop to Drink

This is a hands-on problem. You have one minute to determine which 5 team members will solve the problem.

JUDGE READS TO TEAM (after participants are determined):

You will have 7 minutes to complete this problem. You may talk or ask questions at any time; however, time continues. At the end of 7 minutes, your solution will be scored.

Your problem is to transfer the water from one glass into the other as many different ways as possible in a 7 minute period of time. You will be given materials to be used in your solution.

Score will be as follows:

Successful transfer of water from the start cup to the acceptable fill line on the receiving cup. 20 points

Creativity per transfer 1-50 points

Teamwork 1-50 points

Cleanliness 1-100 points

Start with two glasses, one of which is filled to the top, and the other that will be empty. The empty cup will need to have a fill line located about half way up the cup. The task will be considered successful as soon as the water reaches the fill line of the receiving cup. As soon as the cup reaches the line the judge will shout "SCORE". The team must then return the fluid to the first cup and try another means of water transfer. This will continue until time expires. Water maybe added to the start cup as needed, but not during an attempt. If you are unable to transfer enough water to reach the line, you must start over. (Reread the problem) Your time begins now.

Materials and Setup (Substitute as needed)

Give each team the following materials:

2) 12 ounce plastic cups

Gallon of water in a pitcher

2 pieces of yarn 12" in length

4 straws

5 Oreo cookies (optional, could be fun)

1" square of clay

1 sheet of construction paper

1 spoon

1 sandwich bag

2 pencils

1 thimble
1 small spoon
5 extra “start cups”

JUDGES ONLY:

Be prepared for spills

The rules are worded such that the team can handle the cups any way they see fit.

They may use their hands to move the cups, but I am sure that they will find more creative ways.

They may use other items found on their person, but don’t tell them this.

They may prepare several start cups at the same time, but they may use only one “start cup” per attempt.

A creative means of transfer would be:

1. Hold the start cup over top of the receiving cup, then push your fist into the cup to force the water to spill over into the receiving cup.
2. Use your shoe to transfer the water
3. Use your mouth
4. Use the yarn to make a handle on the start cup, then hold the yarn and use the pencil to tip the water out of the cup.
5. Pour the water from tool to tool in series before pouring the water into the receiving cup

Discuss the problem, try it again, and see if they can increase their score. Be wacky... Be Crazy... But most of all just be open-minded. Creative minds can be like a sponge. They just keep soaking it all in. Use those creative sponges to clean up the mess afterwards. Have fun. Joe