Activity Water Worthy Vessel

Materials

- 1 Sheet of 11"x8.5" Cardstock
- 5 Tongue Depressors
- 5 Paper Clips
- Modeling Clay/Play Dough
- 4 Bendy Straw
- Aluminum Foil/Wax paper
- 12 inches of string
- 6 inch of masking tape
- 5 Pipe Cleaners
- Scissors (cannot be in design)
- -Storage Bin/Kiddie Pool/Tupper Wear (for water worthy testing)

Procedure

Brainstorm (5 minutes). Assign a recorder for your group. As a team, brainstorm as many ideas for your water worth vessel as possible as the recorder documents your ideas. You may handle and inspect the materials, but you may not alter or connect any of the materials in any way during this phase. Select one of your sketched ideas to pursue.

Idea 1	Idea 2	Idea 3
Image of Annotated Sketch	*Image of Annotated Sketch*	*Image of Annotated Sketch*
Description:	Description:	Description:

Build (10 minutes). Build your Boat. Make changes to your original ideas as necessary.

Primary Build
Image of Primary Build

Test (1 minute). Each team will have one minute to test their device for buoyancy.

Test	Weight Held	Evaluation
Picture of Trial	*Grams of Weight*	*Reflect on Design*

Redesign (5 minutes). Revise your device based on the results of your testing.

Redesign
Image and Description of Improvements

Present. Each team will take a turn attempting to hold as much weight as possible while maintaining water worthiness. The weight will be recorded.

Final Test	Weight Held	Reflection
Picture of Trail	*Grams of Weight*	*Describe Positives and Points of Improvement*

Scoring

Your team may receive points for the following.
Creativity: Up to 10 points for creativity in the design and use of materials
Teamwork: Up to 10 points for how well your team works together
Performance: 1 point for each gram of weight held prior to capsizing.

Conclusion

1. Why do you think brainstorming is helpful when solving a problem?

2. How did testing improve your design?

3. With respect to designing the solution of a problem, what are some important characteristics of a successful team?