

STEM 8-12 Tues. July 16 2-3PM

Recycled Boat Challenge

Location: Children’s Reading Room

Materials: Recycled materials, straws, clear bins x3 ¾ Full of Water, weights: pool rocks/buttons/glass jar

Object/Challenge: Float and hold weight for more than one minute with various weights

Tools: Recyclables; straws to make “wind” to push boats

Prize: Library Loot: 1st Place 30 LL, 2nd Place 20 LL, 3rd Place 10 LL

Engineering Concepts: Structure, Displacement & Buoyancy through Engineering Water Play

Talking Points:

Time Guide Structure:

- 2:00 - 2:20 1.) Give 20 minutes to design boats, advise that it will need to float and hold weight for one minute.
- 2:20 – 2:25 2.) Test Boats for buoyancy, approx. 1-3 boats per bin; Can blow boats with straws 1 min each
- 2:25 – 2:30 3.) 5 Minutes to revise Boats as needed
- 2:30 – 2:35 4.) Start with lightest weight: buttons or paperclips: Same amount for each boat 1 minute or longest
- 2:35 – 2:40 5.) 5 Minutes to revise Boats as needed. Round One Winners marked on worksheet
- 2:40 – 2:45 6.) Start 2nd round with pool rocks, even amounts on each boat 1 minute each or longest
- 2:45 – 2:50 7.) 5 Minutes to revise Boats as needed. Round 2 Winners marked on worksheet
- 2:50 – 2:55 8.) Final Round: Heaviest Weights, even amounts on each, one minute or longest
- 2:55 – 3:00 9.) Final Round Winners marked and Prizes awarded; Highest Prize awarded
Example: If a child wins all three rounds they only receive the 1st place prize

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| 1 st Round = 1 Lib. Loot | | | | | | | |
| 2 nd Round = 2 Lib. Loot | | | | | | | |
| Final Round = 3 Lib. Loot | | | | | | | |