



## DESIGN CHALLENGE

# Floatation Device

Design a device that will float in water and hold 50 pennies.

## What You'll Need

- Toilet paper rolls
- 5"x7" sheet of foil
- Rubber bands
- Craft sticks
- Foil muffin/cupcake liners
- 50-100 pennies
- Tape
- Scissors

## Quote



Explain the quote listed in your own words, and then describe how it applies to the design challenge.

"It always seems impossible until it's done."

– Nelson Mandela



### Reflection Questions:

What did you notice about your floatation device in relation to the pennies?

Did you use a strategy to place your pennies and if so, what was it?



### Redesign Challenge:

Redesign your floatation device to hold 100 pennies.



### Overall Design Reflection Questions:

- What were some interesting discoveries you made while working on the Design Challenges?
  - About the problems? About yourself?
- What were some of the difficulties of the Design Challenges?
  - What made them difficult?
- What were some learning moments?
  - What made them so?
- How can you use what you have learned in the future?

If you are finding these challenges fun and learning about what you enjoy doing, check out, our Find Your Passion activity, TGR EDU: Explore [tgreduexplore.org/curriculum](https://tgreduexplore.org/curriculum)