

**Flood Barriers**

**3-5**

**Estimated Time**: 40 minutes

# **Materials (per team):**

* 4 straws
* 6 cotton balls
* 4 popsicle sticks
* 1 playdough container
* Tape
* Scissors
* 1 square plate

# **Instructions:**

1. Divide into teams of 4 and give all of the listed supplies to each of the teams
2. Give teams instructions of the task with 20 minutes to complete their construction
   * With their square plate as the base, build a barrier around a sugar cube using only the available materials to protect the cube.
3. After the design phase is complete each team’s flood barrier will be tested by placing all the plates into the tub while slowly adding buckets of water to see which sugar cubes survive.

# **Possible Variations:**

If time allows multiple trials can be run with variations in design

# **Science Behind the Project:**

Water is capable of doing a lot of damage (floods, hurricanes, etc.). What can be done to the design of landscapes and structures to help us reduce the risk of this damage?