

# STEM Activity of the Week

## Climate and Our Coast Worksheet



### Phase 1: Planning and Trial 1

1. Choose your structure type. Check all boxes that apply

Living Shoreline

Floating Island

Floodwall

Elevated Land and Streets

Revetment

Levee

2. List your materials:

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3. Sketch your design plan in the box below.

4. Build and test your structure by slowly pouring about 2-3 cups of water on to the shoreline and observing the cotton pad for flooding.

**Flip to Continue** 

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- 5. Review your design.
  - a. Use the Trial 1 column below to rate your design on a scale from 1 to 10  
1 = unsuccessful and 10 = successful

	Trial 1	Trial 2
<b>Materials</b> How well did your materials reduce flooding?		
<b>Strength</b> How well did your structure stay up?		
<b>Protection</b> Did your structure protect the cotton pad?		
<b>Overall Score</b>		

- b. What worked? What needs to be improved? How will you make these changes?

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## Phase 2: Revise and Trial 2

- 1. Add or change your materials.
- 2. Make any desired changes to your design using the sketch box above.
- 3. Retest your structure.
- 4. Review your final product.
  - a. Use the Trial 2 column in the table above to rate your design.
  - b. Are there materials you wish you had that were not available?

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- c. Were your changes successful? What were some strengths and weaknesses of your design? What challenges came up?

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