



# PROJECT OCEANOLOGY

## ColorMe Beach!

### Post-Shore Program Activity



#### Supplies

- Rulers with mm
- Meter sticks
- Black marker
- Pencils
- Crayons
- Long paper (2 pieces)
  - One cut to ~ 4.5 6 meters long (use for beach transect)
  - One cut to 1 meter or more (use for the beach trench profile)

#### Procedure

1. Cut paper  $\frac{1}{2}$  meter longer than the meters measured by the transect divided by 10 (i.e. 60-meter transect = 6.5 meters of paper needed).
2. Mark a straight line the length of the paper about 20cm from the bottom edge of the paper with a black marker. *This line is where the elevation team will measure up from.*
3. Make a small dash mark on the straight line every 10cm to represent the conversion of the 1-meter distance across the transect (1 meter on the transect = 10cm distance across the paper).
4. **Elevation Team:** Mark the elevation along the transect drawn on your paper. The elevation conversion is:
  - 1cm elevation change = 1mm on paper
  - \*\* Use Column 5 (Cumulative Elevation Change) for plotting\*\**
5. **Plant and Sand Teams:** Create a key for the different data you collected. *If there was more than one transect team, collaborate with the other plant and sand members so the keys are the same for all of the transects. DO NOT START PLOTTING YET.* Some suggestions:

**Sand Size Suggestions:** Use different colors to represent the different sand sizes. Place these colors between the elevation and the straight line.

**Plant Cover Suggestions:** Use different symbols to represent the types of plants and different colors to represent the percentages of the plants. Plot this information on top of the elevation line.

6. Once the elevation team has plotted their elevation dots, have another team member connect the dots with a straight line.
7. Once the elevation points have been connected, the plant and animal teams may begin plotting their data. Make sure you put your key on the paper for reference.
8. For the beach trench (layering and history) profile, draw exactly what you saw in the hole using the same key as the sand size team.
9. Once you have finished, hang or place your transect above the others for comparison. Try to put them in order of how they were run on the beach.

**Suggested Discussion Points:**

- Elevation Change
  - How does the elevation compare to the vegetation coverage?
- Sand Size
  - How does the size change with elevation?
  - Why is the sand size smaller at the top?
- Erosion
  - How did this beach form?
  - What do you predict will happen to this beach as time goes on? (Thinking about the different types of data that were collected in the field)