

# SPARTINA BEACH ACTIVITY

The **GOAL** of this activity is to improve the resilience of Spartina Beach.

The federal government has given the City of Spartina Beach \$1,000,000 to improve resiliency and decrease hazardous flooding. The Mayor of Spartina Beach has invited stakeholders- small business owners, environmental scientists, public works professionals, homeowners, and large developers- to a special meeting to decide how to use these funds.

## TEACHER INSTRUCTIONS:

1. Prior to activity, prepare (A) stakeholder cards, (B) solutions cards, and (C) money pages.
2. Introduce activity by stating the **GOAL** – to improve *resilience* of Spartina Beach. *Start a discussion with students about what they have learned so far about resilience.*
3. Display maps of Spartina Beach for the class (PowerPoint):
  - i. First, show the map without “RISK ZONES” and review only the **LAND USE TYPES: Shoreline – Wetlands – Forest – Highlands – Residential – Businesses**
  - ii. Next, show the map with (circled) **RISK ZONES (Low, Medium, High)**. Explain that these are different regions of the community, and that some areas are more prone to flooding and/or extreme weather than others.
4. Review stakeholder roles and solutions with students. Mention that each stakeholder group will have specific areas of concern. (For example, environmental scientists would be most concerned about natural areas, like wetlands.)
5. Organize students into the 5 stakeholder groups, giving each group a risk zone (1-5).  
**1- Homeowners, 2- Small Business Owners, 3- Large Developers, 4- Public Works Professionals, 5- Environmental Scientists**
6. Within each stakeholder group, assign a recorder, a spokesperson, and a negotiator (or “active listener”). Make sure students understand their roles within the group, as well as within the “community.”
7. Pass out **WORKSHEETS 1 and 2**. (Optional: Students can work together to color in the map, giving each land use type a distinct color.)
8. Pass out money (1 page per group) and have 1-2 students in each group cut the money into cards.
9. Give groups at least 15 minutes (more if needed) to discuss their role in the community and to choose the best solutions for their stakeholder group and assigned risk zone.
10. Have the spokesperson from each stakeholder group present their solutions to the rest of the class (~3 min. each). They should include an explanation of why they made certain choices, as well as the money spent, and water droplets earned.
11. Remind negotiators from each group to listen thoughtfully to all opinions and perspectives of the other groups.
12. Have students get back into their small groups to discuss whether they want to revise their initial plans. Pass out **WORKSHEET 3** for students to record any changes.

13. Remind students that even though they are members of a specific stakeholder group, the goal is for everyone to agree on a plan for the entire community.
14. Tell students that as Mayor of Spartina Beach, you are required to report back to the federal government about the improvements made to the community to improve resilience and decrease flooding.
15. Facilitate an open forum where each group presents their case again in ~3 min. each.
16. By the end of the activity, the class should come to an agreement on how \$1,000,000 will be spent. If there is any money left over, the group must decide as a community how to use the remaining funds.
17. Students can use **WORKSHEET 4** to record the final selections.
18. At the end of the activity, display the resilience ratings, based on the number of water droplets earned toward “environmental quality.”
19. Give students a few minutes to reflect on the questions provided at the end of the ‘student instructions sheet’ (also below) and give students an opportunity to share their thoughts.

## RESILIENCE RATINGS

0 - 35 = Poor

36 - 70 = Fair

71 - 100 = Good

101 + = Excellent

## STUDENT REFLECTION QUESTIONS:

Which solutions were the most used?

Which solutions gave the highest environmental quality rating? Why do you think this is so?