

BY THE SEA!

Each summer, Ada and her family vacation on the coast with her grandparents. They visit a small island, where Ada hunts for answers to her many questions while her brother hunts for treasure.



They built a driftwood fort three years ago on a hill near the center of the island. On every visit, they comb the beach and add to their science/pirate fort.

This year, Ada and her brother were shocked when they got to the island. The fort was gone! A hurricane had pushed a powerful wall of water onto the island and swept the fort away.

Ada did not understand. The fort was high above the beach and far from the shore. How could waves reach it?

After vacation, she did some research, and she learned that sea levels are rising due to climate change. The warming atmosphere also causes stronger and more frequent hurricanes. These strong storms push enormous amounts of water in front of them. This is called a storm surge. Storm surges can be many meters high and flood lands far from the shore. This kind of flooding affects millions of people around the world and will get worse as the climate continues to warm.

Storm surges over 8 meters high have been recorded!



Ada also learned about topographical maps. They show how high the land is above sea level. Help Ada use a topographical map to find a safe place for her next fort.

Each ring of the map shows the height of the land above sea level. The distance between rings shows how quickly the land slopes up or down.

Rings that are far apart show that the land is not steep. Rings that are very close together show a steep hill.

Using your colored pencils, show where the water would flood on Ada's Island if the storm surge is:

3D MAP KEY: 2 METERS 3 METERS 4 METERS 5 METERS 6 METERS

