

COASTAL EROSION



JACQUELINE'S 4TH GRADE.

SPRING 2025

DRIVING QUESTION: HOW CAN WE USE RESEARCH AND REAL EXPERIENCES TO LIVE WITH AND ADAPT TO NATURE AND ITS CHANGES IN NORTH CAROLINA?

PHASE 1: LAUNCH GETTING TO KNOW THE PROBLEM

When homes are lost to the ocean, it captures everyone's attention. Students delve into the issue of eroding beaches and the natural shifts of North Carolina's barrier islands. We viewed videos and interviews highlighting the devastation of houses collapsing as a result of beach erosion particularly in Rodanthe, NC.

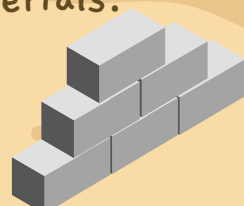
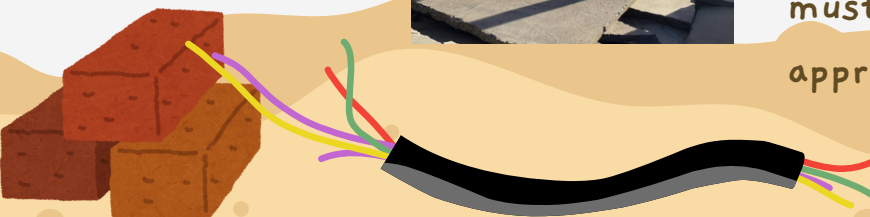


INQUIRY

Each day, we sought signs of erosion and human efforts to combat it. We visited The Scrap Exchange to explore different materials and their potential uses in construction.



We invited guest experts, including a landscape architect, to discuss the causes of erosion and the methods people use to prevent it. They also discussed the cost of solutions and how clients must make decisions based on the most appropriate and effective materials.



PHASE 2: DEVELOPING THE SCIENCE BEHIND IT ALL

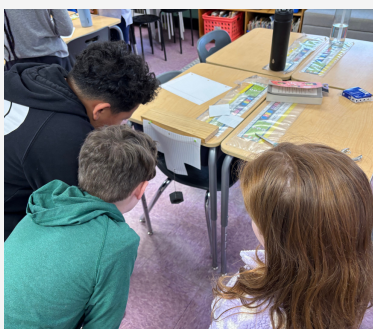
FORCES, MATTER, & ENERGY

Through the CIBL science kits we investigated common materials to understand their conductivity, strength, and magnetism. We analyzed the applications of materials such as plastic, wood, Styrofoam, leather, concrete, and glass in construction and manufacturing. We also tackled various design challenges.



We visited the Museum of Life and Science, where we explored the Earth Moves exhibit. There, we discovered how mountains are formed, how rocks turn into sand, and the ways in which water shapes our planet. Afterward, we began designing and constructing solutions to prevent erosion, drawing on our knowledge of the properties of common building materials.

PHASE 3: CONCLUDING CAMPING ON THE OUTER BANKS



After presenting our models of historic North Carolina structures and erosion prevention techniques, we traveled to the coast for an overnight camping trip. This allowed us to explore historic sites firsthand and accounts from individuals whose research and experiences we've been studying throughout the year.

