
the stars
challenge
Explore Our Shore
Like Never Before
Fall 2017

It has been my privilege to be your teacher as we explored the shores of Sandy Hook this Fall! Throughout our course we studied sandy beaches and brackish marshes. We got wet, were sometimes cold, and even touched and handled things that we never thought we would! At each turn we explored diversity but in the end learned that similar factors govern the ecological importance of all environments, and that we as humans play an integral role in the survival and sustainability of our marine and coastal ecosystems.

You are all so talented and bright, and I look forward to hearing about your amazing accomplishments in the future (hopefully in the sciences!). My hope this semester was to not only engage you with a variety of thought-provoking experiences but to also help nurture in you a life-long sense of curiosity that would always keep you questioning, seeking, and looking at our world with a sense of wonder and awe to become stewards of the environment.

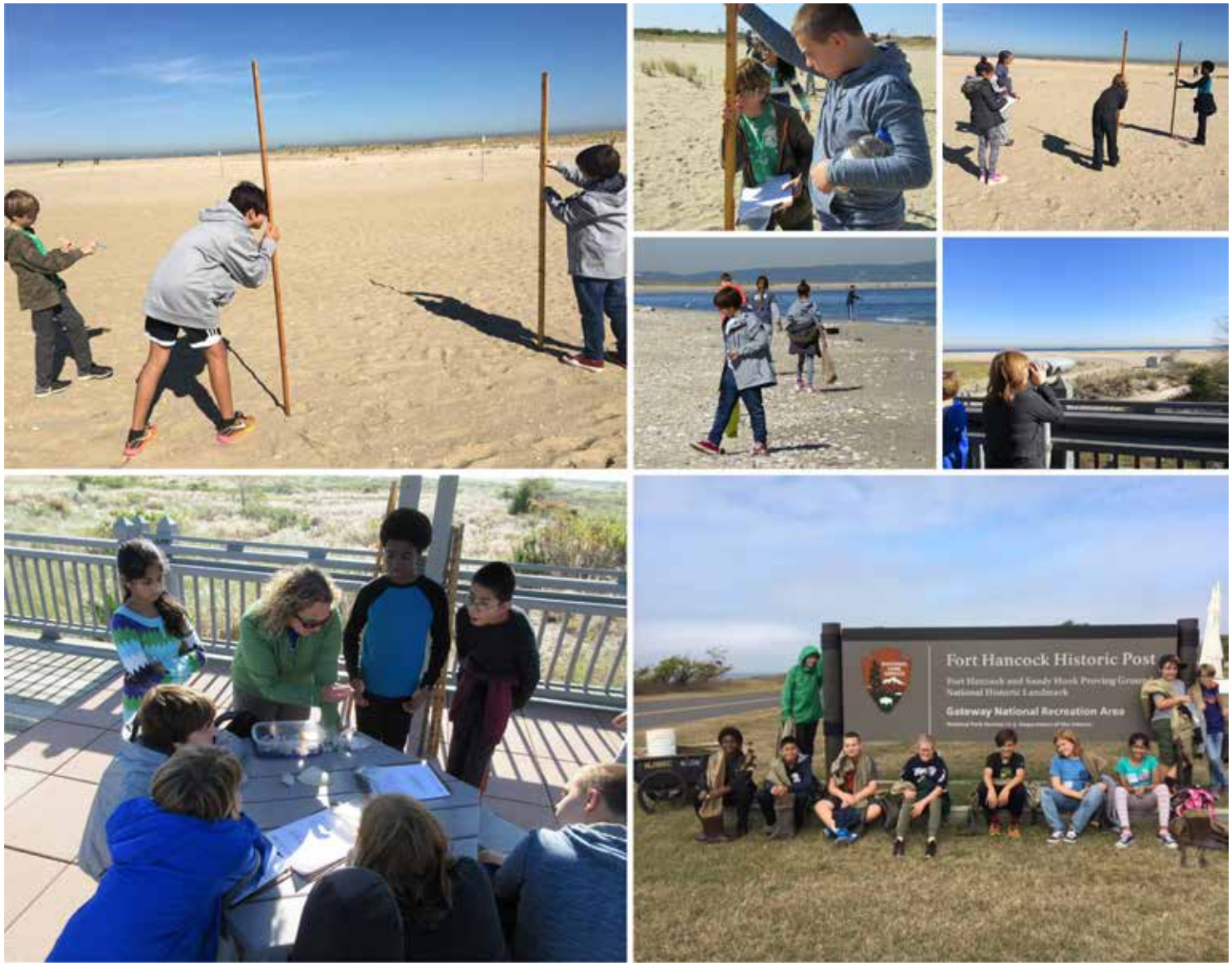
Best Wishes!
Diana Burich

In the end, we only conserve what we love. We will only love what we understand. We will only understand what we are taught. – Dr. Baba Dioum

Seining is a great way to examine the diversity of marine species inhabiting the nearshore areas of Sandy Hook at Horseshoe Cove. Lucas and Luke haul in the first catch of the day with learning assistant Kiernan's help.


204A
LIFEGUARD

Students learn how to measure variations in sand elevation through beach profiling at North Beach to determine whether Sandy Hook is growing or eroding. Matthew meticulously records data for his team.


Fort Hancock Historic Post
Gateway National Recreation Area

Guest instructor Mindy Voss of NJ Sea Grant leads students through a vegetation study at the salt marsh.

Molly, Bryan and Rishika munch on pickleweed (*Salicornia* spp.), a common briney-tasting succulent that grows at the salt marsh.


U.SA


NJSGC

Samantha, Bryan, Lucas, Angelina and Molly collect surf clam samples for their predator-prey study. William throws an orange into the surf to measure longshore current.







When it gets too chilly to go out in the field, it is time to analyze our data. Elvis and Little Claire, the diamondback terrapins, can take us away from our work sometimes!

Plankton, the basis of the marine food chain, provides most of the air we breathe on Earth. The class gains valuable microscope skills while analyzing plankton samples. Luke mulls over his seashell collection.

In the clam shell investigation, students determined the frequency of predation on surf clams by moon snails. Can you guess what size clam (small, medium or large) moon snails prefer to eat?

Aurora, William, Molly, Rishika, and Finn examine reptilian locomotion through turtle racing!

Students analyze various samples of sand to determine mineral composition, grain size and grain shape. These factors represent the geology of samples' origins to show that sand is different wherever you go!

Working together, learning together -- it is what Stars Challenge is all about!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