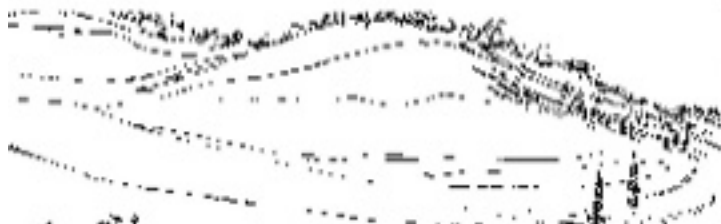


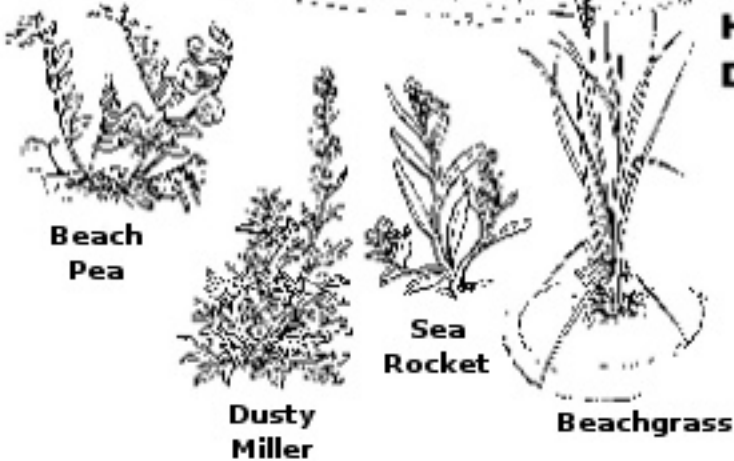
CLASSROOM ACTIVITY

The following activity has been sent to us by Barbara Waters one of our members. The activity is designed for use by Chatham Grade 1 students on a field trip to Morris Island. The group is divided into three teams and each team has a different concept to study. One is a scavenger hunt for remains or clues to animals that live near the beach. Stories in the Sand aims for students to find clues in the sand to a possible "story". She often uses a Hula Hop to put over what they discover and then they discuss what the "story" might be. Most interesting are the sand hopper holes and the evidence of a gull eating a crab. They usually go to the beach in May and often find horseshoe crab nests. This is the first activity we have featured which may be used for very your students.

LOOK FOR STORIES IN THE SAND - - TRACKS AND HOLES



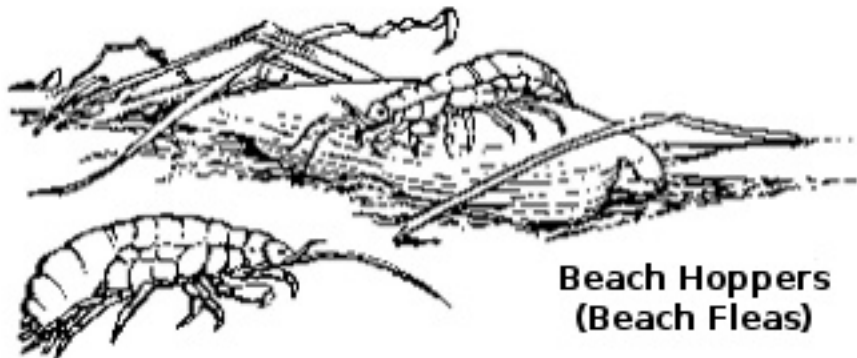
HOW DO PLANTS HELP MAKE DUNES?



TRY THIS OBSERVATION:

**PUT ONE HAND ON THE TOP OF
THE SAND IN THE SUN. USE THE
OTHER HAND TO DIG DOWN TO
THE DAMP SAND BELOW.**

**COMPARE THE TEMPERATURE
OF THE TOP AND BELOW,
WHICH IS COOLER?**



**Beach Hoppers
(Beach Fleas)**

**DURING THE DAY ANIMALS STAY UNDER THE SAND AS
MUCH AS POSSIBLE WHY?**

**LOOK FOR THE HOLES IN THE SAND WHERE HOPPERS LIVE AND
HIDE FROM BIRDS. DO THEY DIG HEAD FIRST OR BACK FIRST?**

(Activity - cont on page 2)

BIRDS LEAVE TRACKS THAT TELL STORIES.



I AM A HERRING GULL. IF YOU FIND MY TRACKS YOU WILL OBSERVE A STORY IN THE SAND ABOUT HOW AND WHAT I EAT.

I AM A TERN AND I DIVE INTO THE WATER TO CATCH FISH. WATCH ME IF YOU CAN.



WE RUN ALONG THE SAND AND PUT OUR BEAKS IN HOLES. WHAT ARE WE TRYING TO FIND TO EAT?

IN THE SPRING THERE ARE SPECIAL STORIES IN THE SAND.



Eggs



1/8"

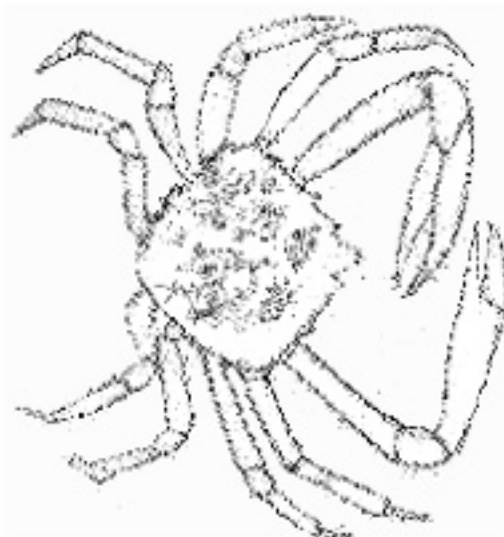
LOOK FOR OUR TRACKS AND THEN A NEST, AND IN THE NEST THERE MAY BE BB SIZED EGGS.



BELOW A GREEN AND SPIDER CRAB—SPRING IS THE TIME OF YEAR THAT WE GROW AND LEAVE A SHED SHELL ON THE SAND. FIND THE SHELL THAT TELLS THE STORY OF HOW WE MOLT (SHED) OUR OUTSIDE CAST TO GROW. OR WE COULD BE EATEN BY A GULL.



Green Crab



Spider Crab

On a clean piece of paper, tell a story of your own with a picture and words.

CAN YOU FIND THESE ANIMALS OR PARTS OF ANIMALS ON THE BEACH?



GULLS— 2 KINDS: WITH BLACK ON BACK AND WITHOUT BLACK ON THE BACK.



SHORE BIRDS THAT FIND FOOD IN WET SAND.



SWIMMING CRAB WITH PADDLES



HORSESHOE CRABS AND MOLTS



MOON SNAIL AND COLLAR WITH EGGS



SCALLOP SHELL



**CLAM SHELLS
QUAHOGS + SOFTSHELL**



WALKING CRAB WITH POINTED CLAWS IN BACK



CRAB THAT LOOKS LIKE A SPIDER

HOW BEACHES, DUNES, AND MARSHES ARE FORMED ON CAPE COD – OUTLINE OF LESSON FOR K-1 CLASSES.

CLIFFS—The cliffs on Cape Cod were carried by Glaciers 20,000 years ago and when the glaciers melted they left behind piles of rocks of all sizes in cliffs, hills, and slopes of Cape Cod.

SORTING ROCKS

Rocks are sorted by scientists (called Geologists) according to their size:

Become a geologist and collect different size rocks and sort them by size using the descriptions and size patterns.

BOULDERS – LARGER THAN 24 INCHES OR TWO RULERS PUT END TO END.

STONES—SMALLER THAN 2 RULERS BUT LARGER THAN A BASKETBALL

COBBLES—SMALLER THAN A BASKETBALL BUT LARGER THAN A BASEBALL.

GRAVEL AND PEBBLES—SMALLER THAN A BASEBALL BUT LARGER THAN HALF OF AN ERASER ON THE END OF A SKINNY PENCIL.

SMALLER ROCKS ARE SORTED BY SIFTING THEM THROUGH HOLES OF DIFFERENT SIZES. FOR

EXAMPLE small gravel, small and large sand grains.

Silt and clay are the smallest pieces of rock and stay floating in the water. Use a liter bottle of water to shake up rocks from the cliff. The larger rocks and sand will quickly drop to the bottom. The silt and clay will remain suspended (floating) until the water stops moving for a long time. Silt and clay become the mud in the marsh and mud flats.

THE ROCKS OF DIFFERENT SIZES ARE MOVED BY FORCES OF--

GRAVITY—Throw a stone up on the cliff and watch it roll back down.

WATER—Throw an orange in the waves and watch the water carry it. At same time play Simon Says direction game i.e. Simon says point to north, east, south and west and up and down. If wind is blowing ask which direction it is coming from and where is it going.

WIND—Hold the stick with the ribbon in the air and the wind will move it. Pick up a few handfuls of sand and carefully place in wind to see it carried.

FORCES OF GRAVITY, WATER AND WIND break big rocks into smaller and smaller rocks as they are smashed against each other and become smaller and smaller. Think about why the rocks on the beach are round with no sharp edges.

THE ROCKS AND FORCES THAT ACT ON THEM MAKE OUR--

BEACHES—Force of Water and Gravity wash the pebbles, rocks, and sand from the cliffs and make the beach. Go the edge of the water and watch how the larger rocks are being ground up in the area where the waves break and then how the smaller rocks are carried back up to the beach and dropped as the energy of the wave lets it go.

DUNES—Force of Wind carrying the light sand. The grass on the dunes stops the sand grains and they build up to make dunes. Force of water can also wash dunes away to make a new beach.

MARSHES—Currents of Water carry the smallest pieces of silt to a quiet place and drops it to become the mud of the marsh.