DAY AT
GREAT BAY

DATE__________

SCHOOL______________

WHAT'S A BAY?

Great Bay is an _______. It is a body of water where rivers meet the ____. This means that it is a mix of _______ and _______ water. The freshwater rivers that flow directly into Great Bay are the _______ River, _______ River and _______ River. The _______ River brings the saltwater into Great Bay from the _______. The ocean is _____ miles from Great Bay.

Use these words: Piscataqua Estuary, Winnicut 15, Squamscott Salt, Sea, Lamprey Atlantic Ocean, Fresh

WHO LIVES HERE?

Most ocean animals spend part of their lives in an estuary. Unscramble these words to discover several estuary animals.

ROHESSEOH RBCA DMU NALIS CMIAERNA TSOYRE
MUD SNAIL

DESCRIPTION: __________________________

HABITAT: ____________________________

FOOD: ______________________________

SPECIAL FEATURES I REMEMBER: ________

HORSESHOE CRAB

DESCRIPTION: __________________________

HABITAT: ____________________________

FOOD: ______________________________

SPECIAL FEATURES I REMEMBER: ________

AMERICAN OYSTER

DESCRIPTION: __________________________

HABITAT: ____________________________

FOOD: ______________________________

SPECIAL FEATURES I REMEMBER: ________
Number these organisms 1-6 starting with the bottom of an estuarine food chain.

What provides the energy for a food chain to begin? ____  
Hint: It is up in the sky!

TIDE IN, TIDE OUT
Every day Great Bay experiences two high tides and two low tides.

1. What moves the water in and out? ________________________
   When is high tide today? ________ (ask your educator)
   When you visited the water was the tide coming in or going out? ____

2. How do animals react to the changing tides?
   ________________________________________________________
   Draw it

   What did you find during your waterfront exploration?
   ________________________________________________________

   __________________________
   __________________________

TREE TRIVIA

1. What species of tree has "shaggy" bark? ________________________
2. What species of tree has "rippling muscles"? ________________
3. What species of tree has red stripes on it's bark? ____________
4. What species of tree has "tire tracks" on it's bark? __________

5. Which two of these four trees provide nuts? ________  ________
   What kind of tree is your favorite? ________________________
"SOUP OF THE BAY"

The waters of Great Bay contain important nutrients that help animals and plants grow. We like to call this "Estuary Soup." Can you complete the recipe for "Estuary Soup?" Choose from these words (plankton, fungi, salt, animals, rivers, phyto)

**INGREDIENTS**
1. _____ Water from the Ocean
2. Fresh Water from the _____
3. _____ plankton
4. Zoo
5. Dead plants and _____
6. Bacteria and _____

**DIRECTIONS**
Combine waters, add microscopic plants and animals, add dead "stuff", break it all down with decomposers and simmer in the sun until done.

Serves: Millions of estuary animals!

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**HORSESHOE CRAB PARTS**

Label this horseshoe crab using the following words: feeding claws, book gills, hinge, tail, simple eyes, walking legs, compound eye, mouth, abdomen

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**A COLORFUL CREATURE**

1. Horseshoe crabs have _____ blood.
2. Horseshoe crabs lay _____ eggs.
3. Horseshoe crabs have _____ shells.
4. Horseshoe crab eggs feed shorebirds like _____ legs and ___ knots.
5. _____ barnacles sometimes attach to a horseshoe crab's shell

*Choose from: brown, yellow, green, red, white, blue*
"I SPY ON THE BOARDWALK"

Great Blue Heron  Wood Frog

Cattail  Skunk Tracks

Blackgum Tree  Chipmunk  Osprey Nest  Mosquito

MY GREAT BAY FAVORITES

My favorite thing I 👀:

My favorite thing I 🤔:

My favorite thing I ✋:

My favorite thing I 🌟:

Something I didn't like: __________________________

MUD SNAIL MAIL

HELP MARTHA MUD SNAIL DELIVER A LETTER TO HER FRIEND ERIC EEL
WHO'S WHO IN THE FLounder FAMILY?
Flossie and Floyd are twins. Frankie is the longest. Frannie is a very skinny flounder and Floyd is to her left. Felipe always wants to be next to Flossie. Which flounder is Fred?

MAKE A HORSESHOE CRAB FINGER PUPPET

CUT ON LINES TO MAKE LEGS

TOP

GLUE

BOTTOM

STAPLE

DIRECTIONS
1. Color all parts brown.
2. Cut out top horseshoe crab shell with tail & eyes.
3. Cut out bottom of shell and staple top to bottom as shown with staple marks.
4. Cut out leg section and cut lines to make ten legs.
5. Glue legs onto bottom shell and fold up to make them stick out.
6. Put on your finger and go "horseshoe crabbing around."

GREAT BAY CHALLENGE
How many words can you make out of the word

ESTUARY

estuary
Page 1: What's a Bay?: Great Bay is an estuary. It is a place where rivers meet the sea. This means that it is a mix of fresh and salt water. The freshwater rivers that flow directly into Great Bay are the Winnicut River, Squamscot River and Lamprey River. The Piscataqua River brings the saltwater into Great Bay from the Atlantic Ocean. The ocean is 15 miles from Great Bay.

Page 2: Who Lives Here?: horseshoe crab, mud snail, American oyster


Page 7: Tide In, Tide Out: 1. Currents, wind & gravity move the tide in and out 2. Animals follow water (swim, fly, crawl etc.), close/open shells, hide/burrow

Page 8: Tree Trivia: 1. shagbark hickory 2. ironwood 3. red oak 4. white ash 5. shagbark hickory & red oak

Page 9: "Soup of the Bay": 1. salt 2. rivers 3. phyto 4. plankton 5. animals 6. fungi

ANSWERS pages 10-17

Page 10: Horseshoe Crab Parts (in order from left to right): simple eyes, compound eye, hinge, abdomen, tail, book gills, walking legs, mouth, feeding claws

Page 11: Colorful Creature: 1. blue 2. green 3. brown 4. yellow, red 5. white

Page 15: Who's Who in the Flounder Family?: Felipe, Flossie, Frankie, Floyd, Frannie, Fred

Page 17: Great Bay Challenge: a, are, art, arty, as, aster, at, ate, ear, ears, east, eat, eats, rat, rats, rate, rates, ray, rays, re, rest, rue, rucs, rust, rusty, rut, ruts, rye, sat, sate, say, sea, sear, seat, set, star, stare, stay, stray, sty, sue, sure, tar, tea, tear, tears, teary, teas, tray, trays, true, try, tsar, use, user, year, years, yeast, yes, yet, yurt, yurts

Day at Great Bay mini workbook created by Beth Heckman, Assistant Education Coordinator at the Sandy Point Discovery Center, Great Bay National Estuarine Research Reserve. Please feel free to copy enough workbooks for each student in your classroom and use as a pre/post visit activity or have students use them on their field trip. Each page is meant to correspond to an activity presented during their visit to the Discovery Center. Customize them by cutting and copying only the pages that you would like your students to complete. This page, as well as the answer pages need not be included in the student workbooks.

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