

_____ 's
**DAY AT
GREAT BAY**



DATE _____

SCHOOL _____

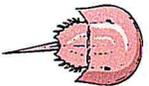
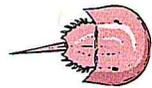
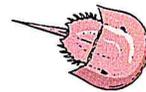
WHAT'S A BAY?

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, Squamscot, Salt, Sea, Lamprey, Atlantic Ocean, Fresh

1



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

2

Draw me

MUD SNAIL

DESCRIPTION: _____

HABITAT: _____

FOOD: _____

SPECIAL FEATURES I REMEMBER: _____

3

Draw me

HORSESHOE CRAB

DESCRIPTION: _____

HABITAT: _____

FOOD: _____

SPECIAL FEATURES I REMEMBER: _____

4

Draw me

AMERICAN OYSTER

DESCRIPTION: _____

HABITAT: _____

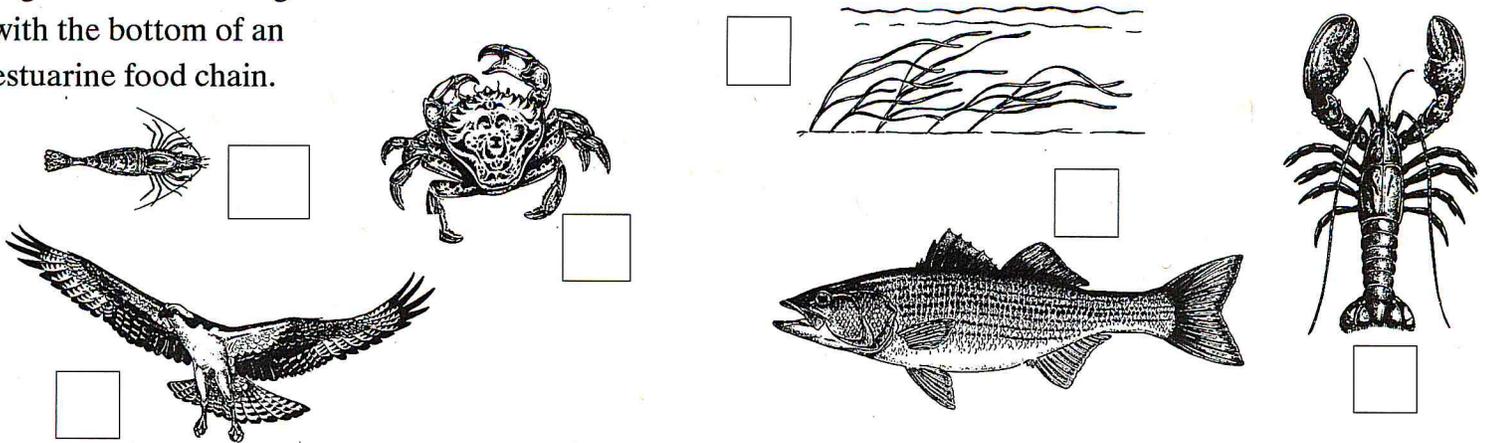
FOOD: _____

SPECIAL FEATURES I REMEMBER: _____

5

Number these organisms 1-6 starting with the bottom of an estuarine food chain.

ESTUARY FOOD CHAIN



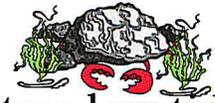
What provides the energy for a food chain to begin? _____

6

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? _____

What did you find during your waterfront exploration?

Draw it

7



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? _____

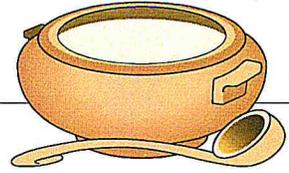
8

"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 ____



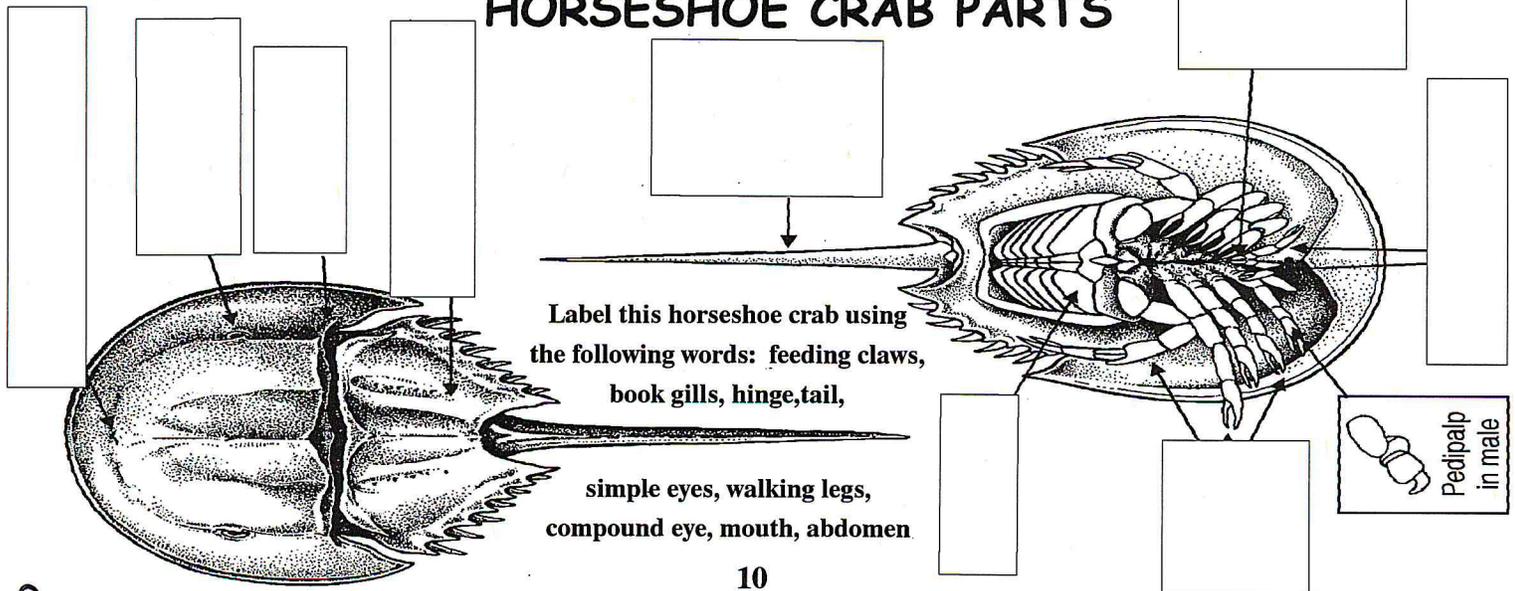
DIRECTIONS

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!

9

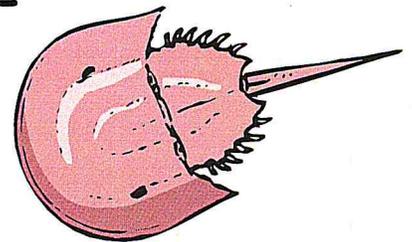
HORSESHOE CRAB PARTS



10

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 these words: brown, yellow, green, red, white, blue

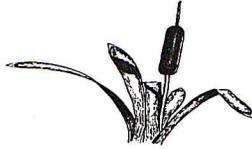
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"I SPY" ON THE BOARDWALK

Great Blue Heron



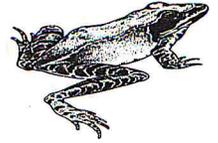
Cattail



Skunk Tracks



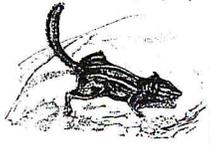
Wood Frog



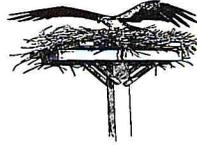
Blackgum Tree



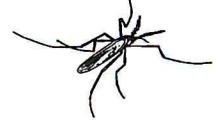
Chipmunk



Osprey Nest



Mosquito



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MY GREAT BAY FAVORITES

My favorite thing I  :

My favorite thing I  :

My favorite thing I  :

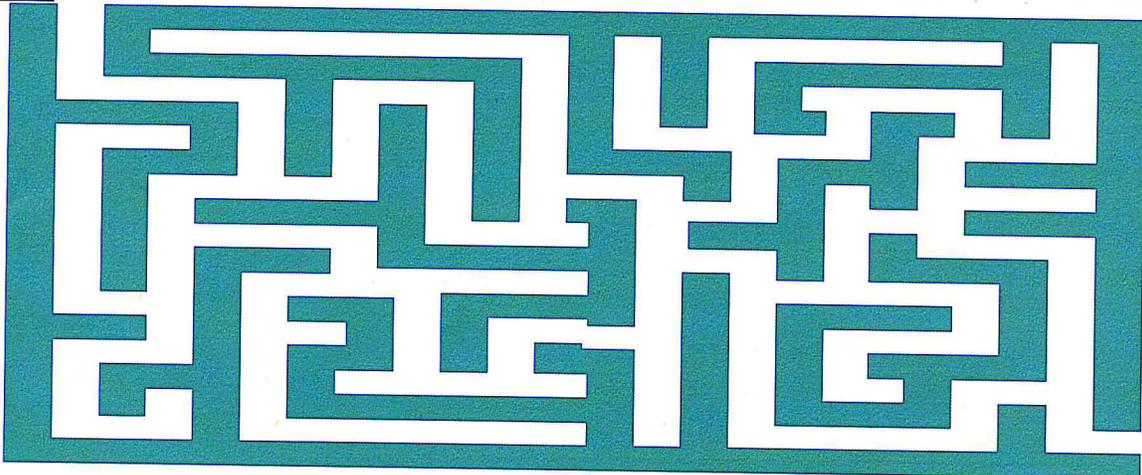
My favorite thing I  :

Something I didn't like: _____

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MUD SNAIL MAIL

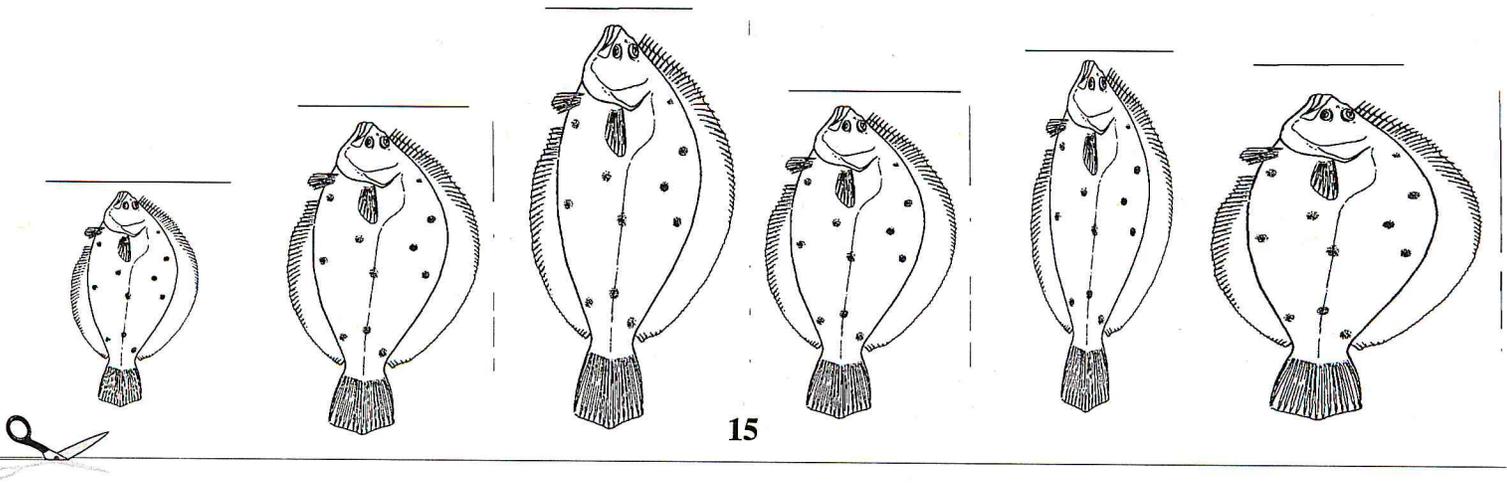
HELP MARTHA MUD SNAIL DELIVER A LETTER TO HER FRIEND ERIC EEL



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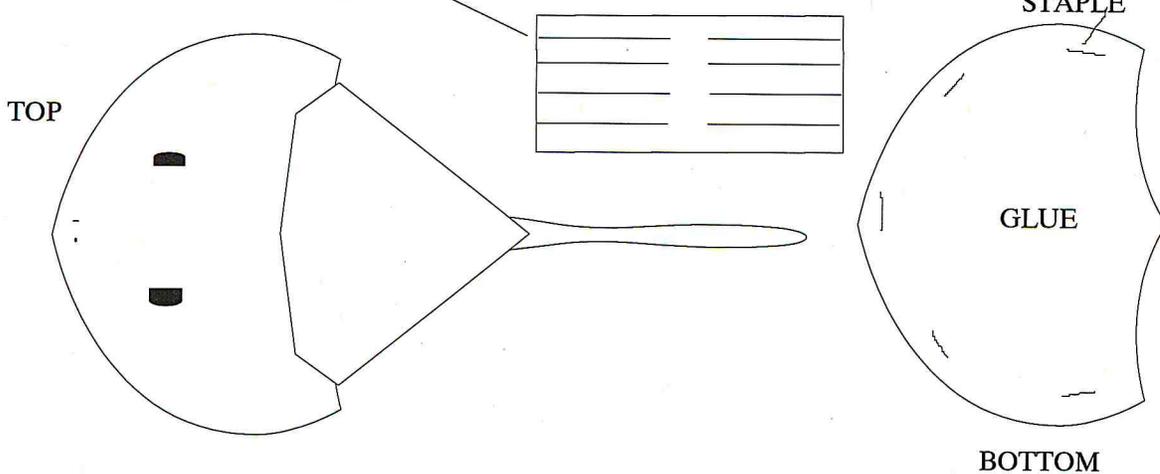
WHO'S WHO IN THE FLOUNDER FAMILY?

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



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."

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GREAT BAY CHALLENGE

How many words can you make out of the word

ESTUARY

estuary

_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

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ANSWERS pages 1-9

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 6: **Estuary Food Chain:** 1. Eelgrass 2. Sand Shrimp 3. Green Crab 4. Lobster 5. Striped Bass 6. Osprey Energy comes from the Sun

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



ANSWERS pages 9-17

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

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

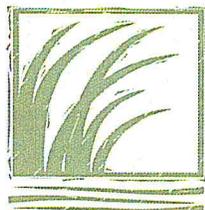
Page 15: **Who's Who in the Flounder Family?:** Felipe, Flossie, Frankie, Floyd, Frannie, Fred

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, rues, 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 (there may be more!)



Day at Great Bay mini workbook created by Beth Heckman, Assistant Education Coordinator at the Great Bay 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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