

ASSATEAGUE ISLAND NATIONAL SEASHORE

For Kids Ages 6 - 14



This booklet belongs to:

Age:

JUNIOR RANGER INSTRUCTIONS

Welcome to the Assateague Island National Seashore Junior Ranger Program. Junior Rangers are special people who learn about their national parks. Children completing this program will earn a certificate and a Junior Ranger Patch.

- 1.** Children must be between 6 -14 years old to participate.
- 2.** From fall to spring, when there are no ranger guided programs, children should complete all of the activities in their age category.
- 3.** During summer, children must attend 2 ranger guided programs, have their booklet signed by the ranger and answer the questions about the program. Guided nature walks, campfires, canoe trips, demonstrations, and aquarium talks provided by the National Park Service at the Maryland or Virginia Districts of Assateague apply. Short visitor center programs (other than scheduled aquarium talks and special slide shows) do not count towards the Junior Ranger program. An adult must be in attendance with children under 12 at all guided activities. Exceptions – Junior Explorers (Virginia District), Kids Beach Discovery (Maryland District). For these programs, parents are requested to remain nearby the program area.

Program

Ranger Signature

What was one new thing that you learned on this program?

Program

Ranger Signature

What was one new thing that you learned on this program?

- 4.** Complete the following activities in the booklet:
Observations must be of habitats and organisms on Assateague Island (exception: "These are a Few of My Favorite Things" activity).

Required of all ages

WHERE AM I?

BEACH TO BAY

THESE ARE A FEW OF MY FAVORITE THINGS

NEW LATITUDE, NEW ATTITUDE

RANGER FIELD STUDY



Ages 6-10 Summer: Complete 2 of the following activities
Fall to Spring: Complete all of the following activities

ASSATEAGUE ALPHABET

TELLTALE TRACKS

NATURE TIC TAC TOE

CRITTERS AND LITTER



Ages 11-14 Summer: Complete 2 of the following activities
Fall to Spring: Complete all of the following activities

INVENT AN INSECT

TRASH TREK

SERIOUSLY SEEKING SEASHELLS

SAND STUDY



- 5.** Return the booklet to the attendant at the National Park Service visitor center desk in Maryland (by 4:30 PM) or Virginia to receive the Junior Ranger certificate and patch. **PATCHES WILL NOT BE MAILED!** During summer, in Virginia, the booklet must be turned in by 2:00 PM on the day you wish to attend the awards ceremony (held at 3:00 PM daily).

NOTE TO ADULT COMPANIONS

Thank you for helping the children participate in the program. This is a family activity. Parents, other family members and friends are encouraged to work with new Junior Rangers. Younger children may need some help reading and understanding the instructions and questions.

**PLEASE LET THE CHILDREN ANSWER THE QUESTIONS
IN THEIR OWN WORDS!**



WHERE AM I?

Assateague Island is a barrier island off the coasts of Maryland and Virginia. It is 37 miles long and totals over 18,000 acres! The boundaries of Assateague Island National Seashore extend 1/2 mile into the adjacent waters making the total acreage around 40,000 acres!

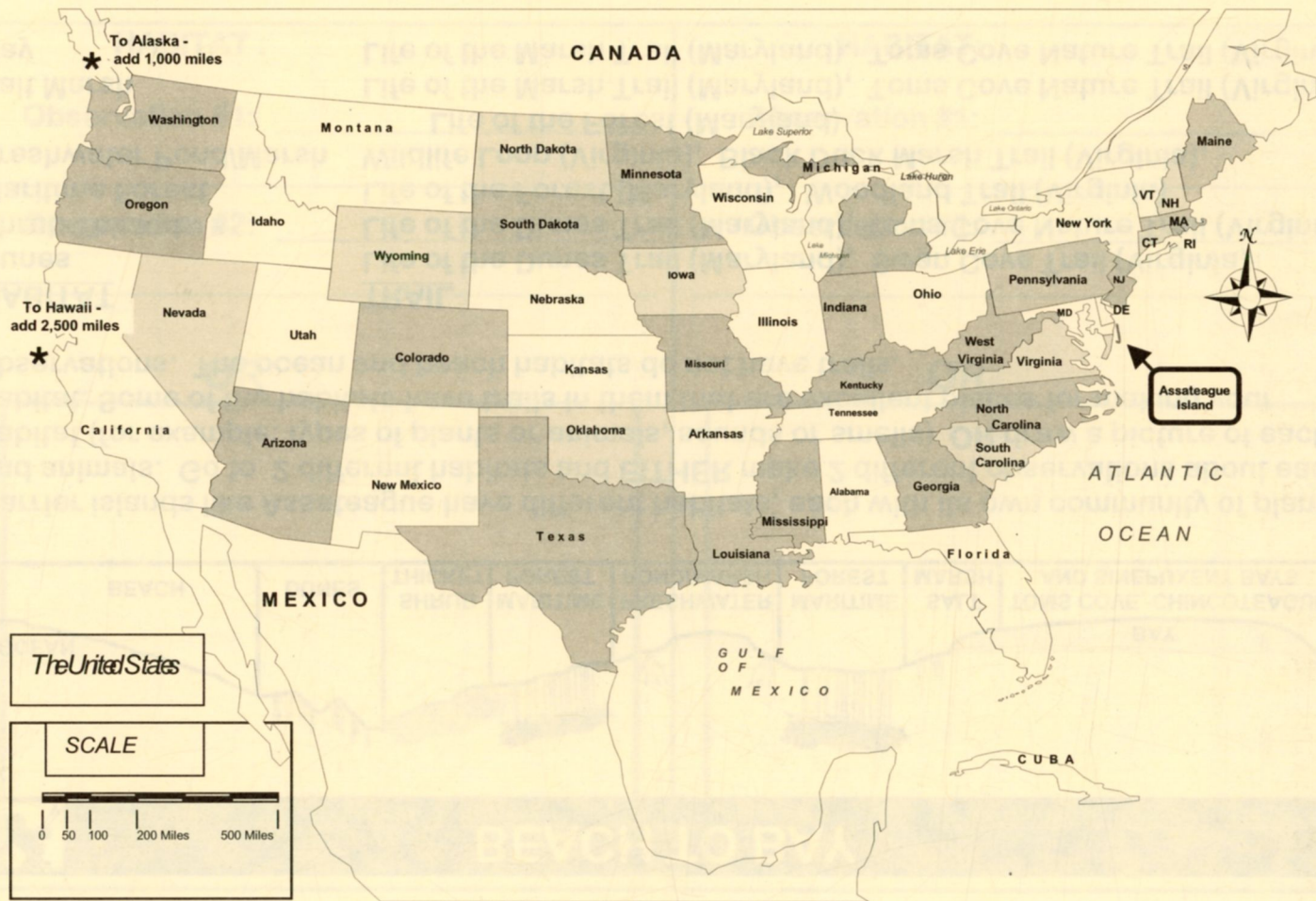
Assateague Island consists of 3 public areas: Assateague Island National Seashore, managed by the National Park Service; Chincoteague National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service; and Assateague State Park, managed by Maryland's Department of Natural Resources.

What town and state do you live in? _____

Find your home state on the map below. Draw a star in the part of the state where you live. Now find Assateague Island on the map. Use the scale of miles in the lower left hand corner of the map to measure distance and figure out how far you live from Assateague Island.

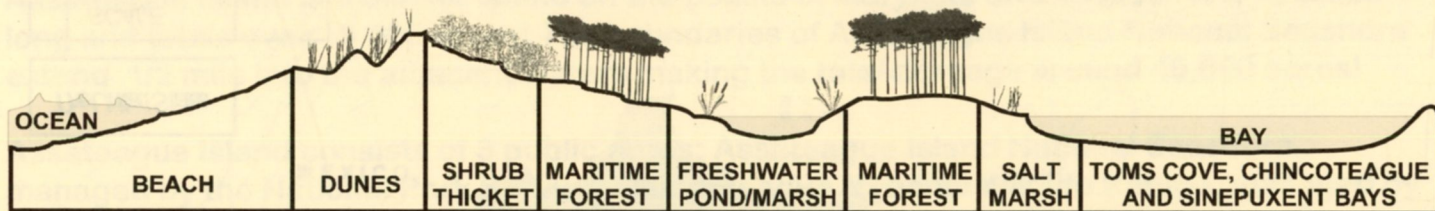
I live approximately _____ miles from Assateague Island.

Put an 'X' in the states that you have traveled through on your journey to Assateague Island. List them on the line below.





BEACH TO BAY



Barrier islands like Assateague have different habitats, each with its own community of plants and animals. Go to 2 different habitats and **EITHER** make 2 different observations about each habitat (for example: types of plants or animals, sounds or smells) **OR** draw a picture of each habitat. Some of the habitats have trails in them that are excellent places for making your observations. The ocean and beach habitats do not have trails.

HABITAT

Dunes

Shrub Thicket

Maritime Forest

Freshwater Pond/Marsh

Salt Marsh

Bay

TRAIL

Life of the Dunes Trail (Maryland), Swan Cove Trail (Virginia)

Life of the Dunes Trail (Maryland), Toms Cove Nature Trail (Virginia)

Life of the Forest (Maryland), Woodland Trail (Virginia)

Wildlife Loop (Virginia), Black Duck Marsh Trail (Virginia),
Life of the Forest (Maryland)

Life of the Marsh Trail (Maryland), Toms Cove Nature Trail (Virginia)

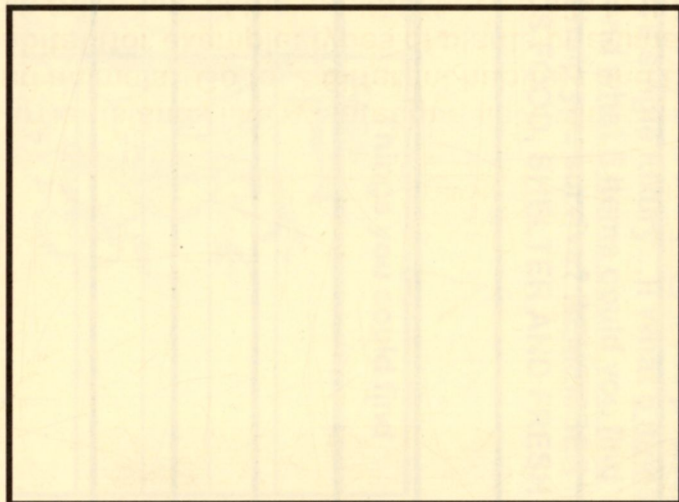
Life of the Marsh Trail (Maryland), Toms Cove Nature Trail (Virginia)

HABITAT :

Observation #1: _____

Observation #2: _____

OR

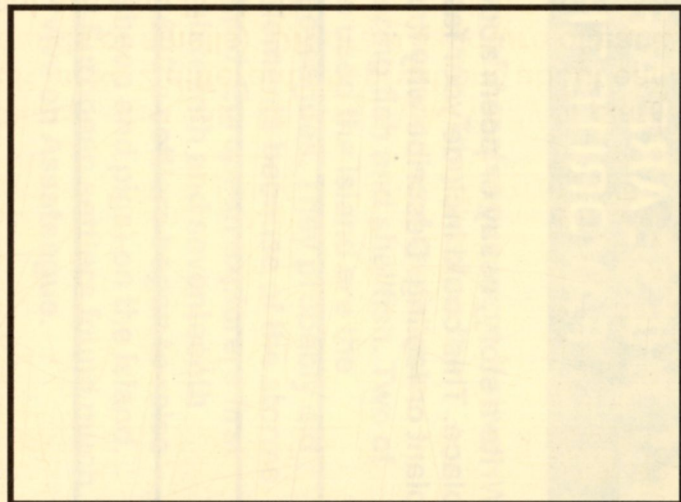


HABITAT:

Observation #1: _____

Observation #2: _____

OR





THESE ARE A FEW OF MY FAVORITE THINGS....

Write a story, essay or poem about your favorite natural place. This could include your favorite activity, animal, plant or feeling. Describe why it is special to you.

[illegible]



NEW LATITUDE, NEW ATTITUDE

The first human inhabitants of Assateague were Native Americans of Algonquin culture. They lived on the mainland but spent certain seasons on Assateague, hunting animals and gathering fish and shellfish. Two of the tribes believed to have used the island are the Assateagues and the Gingoteagues. They probably did not create permanent settlements because of the storms that periodically hit the island. European explorers first visited Assateague in the sixteenth and seventeenth centuries, and in the late 1600's settlers began to raise livestock (cattle, horses, sheep and pigs) on the island. The Native Americans and European settlers found much of what they needed to survive on Assateague.

Pretend that you are moving to Assateague! You are on a ship coming to Assateague Island in the 1700's (no phone, no lights, no motorcar, not a single luxury...)! What 5 items would you bring with you and what 5 items could you find on Assateague that would help you survive? **REMEMBER THAT EVERYTHING NEEDS FOOD, SHELTER AND FRESH WATER TO SURVIVE!**

Things to bring with you	Things you could find



RANGER FIELD STUDY

In 1916 Congress created the National Park Service and stated that its mission was to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

At Assateague Island National Seashore many different types of rangers work to help fulfill this mission. Naturalists, researchers, lifeguards, administrative, law enforcement, maintenance and volunteer staff are all important National Park Service employees. Complete a field study on a National Park Service employee by observing one and answering the following questions.

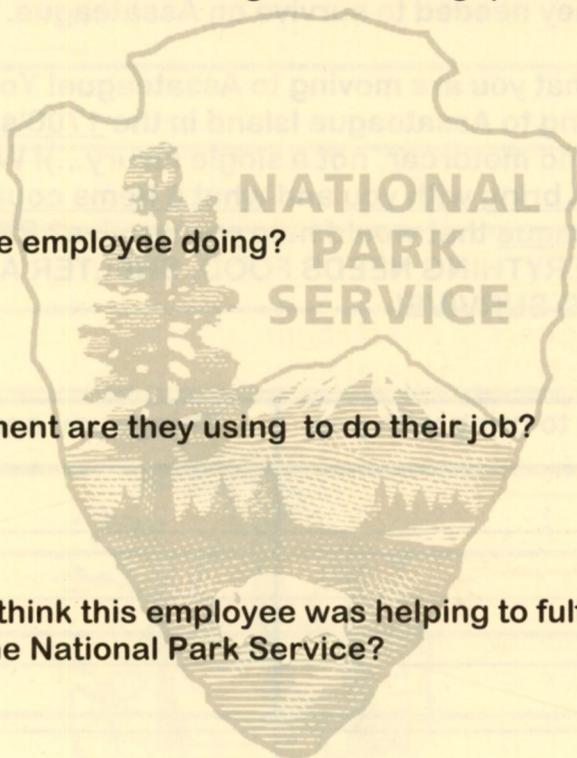
Time of day:

Location:

What was the employee doing?

What equipment are they using to do their job?

How do you think this employee was helping to fulfill the mission of the National Park Service?





ASSATEAGUE ALPHABET

Pick 1 plant and 1 animal that start with one of the letters below. Draw a picture of them, identify them and tell what habitat they were found in. The plants and animals should be found on the island of ...

A S S A T E A G U E

plant - habitat -	animal - habitat -
---------------------------------	----------------------------------

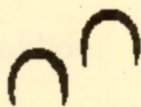
Use the letters in Assateague to spell as many words as possible. Try to make at least 15 words.

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



TELLTALE TRACKS

Tracks left by animals (and sometimes plants) give you a chance to be a super sleuth. Tracks are one type of clue left behind by animals that are nocturnal (active at night), secretive or wary. You may be able to tell what kind of animals use a particular habitat even if you never see the animals! A track is a series of prints. A print is the impression made by one foot. The best time to look for tracks is in the early morning before they are trampled over by humans. The best places to look are in the sand (beach habitat) or in mud (marsh habitat). In Virginia the Toms Cove Nature Trail (at low tide) and the beach are good places to look for tracks. In Maryland look at exposed salt marsh mud around the Old Ferry Landing (at low tide), the Life of the Dunes Trail and the beach.



horse



white-tailed deer/sika elk



ghost crab



raccoon

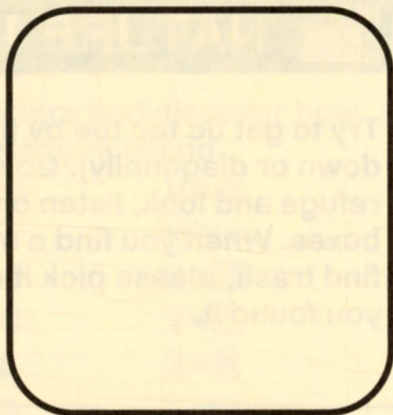
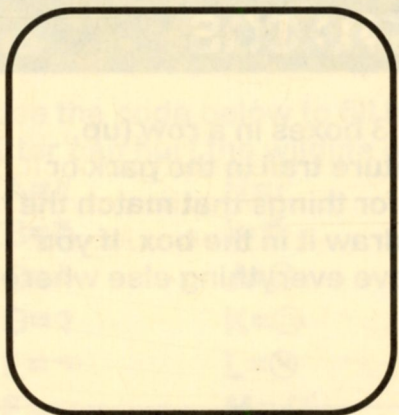


heron / egret



fox

Find 4 different tracks. Measure a print from each, using the ruler on the back cover. Draw a sample print from each track in a box on the next page. Record the habitat where you found it and try to identify the animal that made it. Try to find at least one track that doesn't match the tracks on this page.



habitat: _____

habitat: _____

animal: _____

animal: _____

print size: _____

print size: _____



habitat: _____

habitat: _____

animal: _____

animal: _____

print size: _____

print size: _____



NATURE TIC TAC TOE

Try to get tic tac toe by filling in 3 boxes in a row (up, down or diagonally). Go on a nature trail in the park or refuge and look, listen or smell for things that match the boxes. When you find a match, draw it in the box. If you find trash, please pick it up. Leave everything else where you found it.

something that smells	an insect	animal tracks
an animal's home	trash	something that makes you smile
something singing a song	something moved by the wind	a flower



CRITTERS AND LITTER

Use the code below to fill in the letters and discover how litter can hurt the wildlife on Assateague Island.

A=✌

H=✋

O=📄

V=❖

B=👉

I=👋

P=📄

W=◆

C=👆

J=😊

Q=➔

X=☒

D=👉

K=☹

R=⚙

Y=⬆

E=👉

L=☹

S=💧

Z=⌘

F=👉

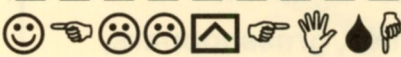
M=💧❄

T=❄

U=◆

Plastic bags and balloons in the ocean look like

and may be eaten by



____ _ , ____ _ and ____ _

can become tangled in fishing line and plastic six pack holders.

____ _ and ____ _ can cut and injure

wildlife on Assateague Island.



INVENT AN INSECT

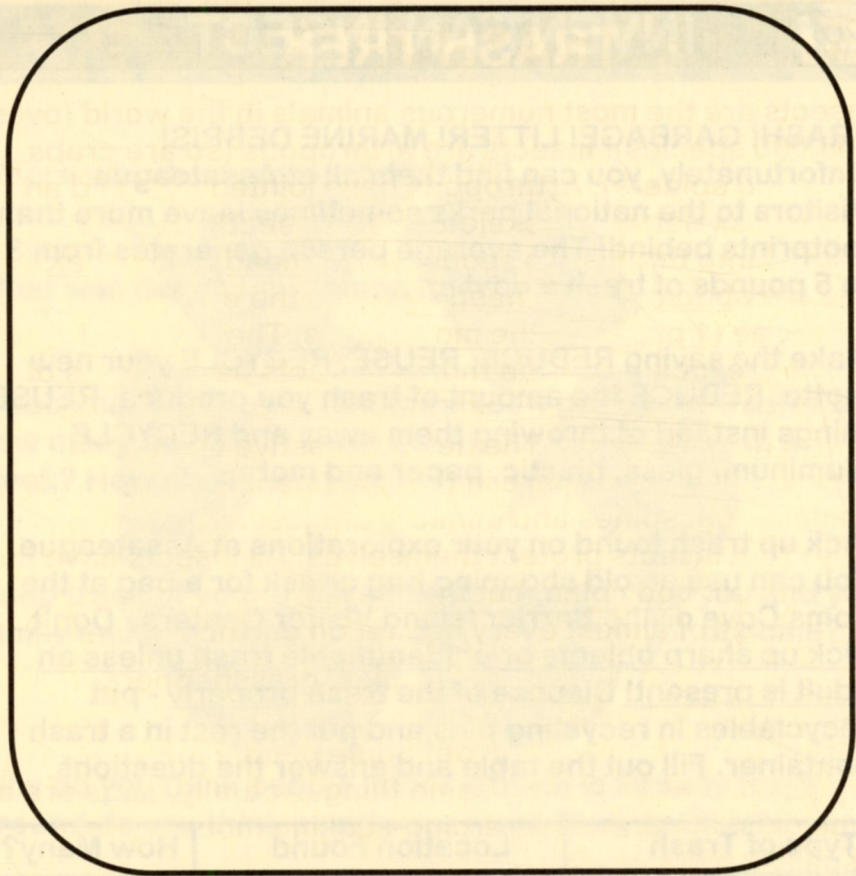
Insects are the most numerous animals in the world (over 900,000 species)! Insects are arthropods (so are crabs, ticks and spiders). Arthropods have jointed legs and an exterior skeleton (exoskeleton). An insect's body is divided into three main sections - the head, the thorax and the abdomen. The head contains the eyes, the antennae (1 pair) and the mouthparts. The legs and wings are located on the thorax. Insects have 3 pairs of legs and

1 or 2 pairs of wings. The heart, digestive tract and reproductive organs are in the abdomen. Poison, camouflage, spines and mimicry are just a few of the ways that insects protect themselves. All insects have the same basic body plan, but they have diversified to take advantage of almost every habitat on earth!

Mosquitoes, butterflies, gnats, flies, grasshoppers, beetles and bugs are just a few of the insects you can expect to see on Assateague. Some people think that insects and bugs are the same thing. Actually, bugs are a type of insect that has piercing-sucking mouthparts and usually 2 pairs of wings. **SO ALL BUGS ARE INSECTS, BUT NOT ALL INSECTS ARE BUGS!**

We depend on insects more than we realize. Insects provide food for other organisms, pollinate flowers, decompose plants and animals and provide humans with honey (bee barf), silk and food. Without insects, life as we know it would be impossible!

Invent an insect and draw it in the box on the next page. Make sure your insect has all the body parts that are underlined in the text above. Give your insect a species name and a common name (for example: Adalia bipunctata is the species name of the two-spotted lady beetle). Answer the questions below the box. **BE CREATIVE - DON'T RUSH!** If you have trouble coming up with ideas, observe different insects in the park. Look closely, you'll find them almost everywhere!



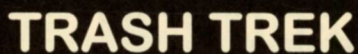
Species name: _____

Common name: _____

What habitat does your insect live in?

What does your insect feed on?

How does it protect itself from predators?



Unfortunately, you can find them all at Assateague.

Make the saying **REDUCE, REUSE, RECYCLE** your new motto. **REDUCE** the amount of trash you produce, **REUSE** things instead of throwing them away and **RECYCLE** aluminum, glass, plastic, paper and more.

Pick up trash found on your explorations at Assateague. You can use an old shopping bag or ask for a bag at the Toms Cove or the Barrier Island Visitor Centers. Don't pick up sharp objects or unidentifiable trash unless an adult is present! Dispose of the trash properly - put recyclables in recycling bins and put the rest in a trash container. Fill out the table and answer the questions.

[illegible]

How do you think most of the trash got there (people dropping it, wind, water...)?

Where was the most trash found?

What was the most common item?

If each person in your family makes 4 pounds of trash a day, how many pounds of trash does your family make in a week? How about in a year?

Keep track of your trash while on vacation. Do you and your family make more trash per day on vacation or at home?

Why do you think people litter? If there is already trash around do you think people are more likely to litter?

How can trash harm the wildlife at Assateague?

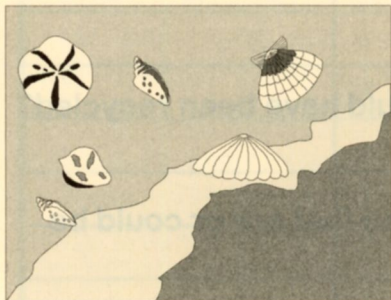
How many pieces of your trash could have been recycled?

What are some things that we all use that are or could be made from recycled trash?



SERIOUSLY SEEKING SEASHELLS

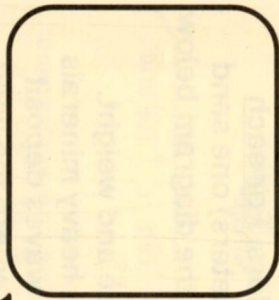
Seashells are really skeletons! Most seashells are skeletons of mollusks, which are soft bodied creatures that have an exoskeleton (outside skeleton) made of calcium carbonate. Clams, oysters, snails and mussels are common mollusks found in the waters around Assateague. A mollusk's shell protects it from predators, pounding surf, the sun and desiccation (drying out). Mollusks begin to form their shell when they are larvae (babies) and stay in the same shell until they die. As they grow, they make their shell bigger by using a thin layer of tissue called the mantle. The mantle produces calcium carbonate and organic compounds in crisscross layers that give the shell added strength. The beautiful colors in the shell are produced by pigment cells in the mantle. These colors may fade after the mollusk dies and its shell becomes worn from the water and sand. When a mollusk dies, its shell can become a home for other organisms. Many species of animals and algae attach to empty mollusk shells and form little communities! Hermit crabs are the best known housing recyclers. They use empty snail shells for their own "mobile homes"!



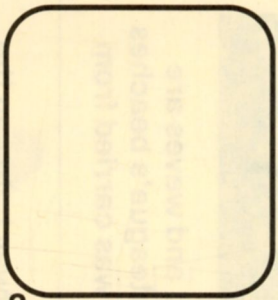
Go out to the beach or bay and collect 5 different shells and complete the activity on the next page. If you need help, ask for a seashells brochure or look at a book at the Toms Cove or Barrier Island Visitor Centers.

Please don't collect any shells that have anything living on or in them!

Draw your shells in the boxes. Identify each shell below its box. Answer the question for each shell.



1.



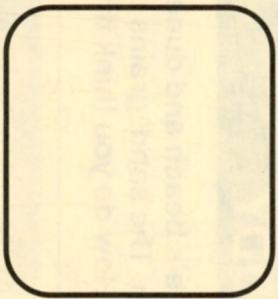
2.



3.



4.



5.

Think of other uses for your shells now that they are not being used by their original owners. (Example: A person could use a clam shell as a shovel).

What would use it?

How?

1. _____
2. _____
3. _____
4. _____
5. _____
- _____

- _____
- _____
- _____
- _____
- _____
- _____



SAND STUDY

Sand grains are the building blocks of Assateague's beach and dunes. Wind and waves are the builders and the demolition crew of the beach. The sand grains on Assateague's beaches are tiny rocks that were once part of mountains. How do you think the sand was carried from the mountains to Assateague? _____

Investigate beach sand in the following spots: 1. At the water's edge; 2. Halfway between the water's edge and the base of the dune; 3. At the base of the dune. (DO NOT WALK ON THE DUNES!) Wet your finger and press it into the sand and look for different colors. For each location, list the different colors of sand that you see and measure (in millimeters) one sand grain of each color. (Use the ruler on the back cover). Record your data on the diagram below.

Wind and waves not only move the sand around, they sort it according to size and weight. Storm waves, heavy surf conditions and strong tides deposit a layer of dark, heavy minerals like magnetite (black), ilmenite (black) and garnet (red and purple). Smaller waves deposit feldspar (orange, tan and yellow) and quartz (white and clear) on the beach where the wind eventually blows these lightweight sand grains over each layer of dark sand.

Dig a 40 centimeter deep hole or a trench in the sand in the middle of the beach (about halfway from the water's edge to the base of the dunes). Please fill it in when you are done. How many layers of dark sand do you see? _____ A thick layer of dark sand indicates a large storm. Several layers of dark sand indicate an active storm season. Measure from the top of the hole to the first layer of dark sand. _____ (cm). Based on your observations, has there been a storm recently? _____

Which location had the largest sand grains? _____ the smallest? _____

What color were the largest sand grains? _____ the smallest? _____

Middle of Beach

<u>colors</u>	<u>size (mm)</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Base of Dunes

<u>colors</u>	<u>size</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Water's Edge

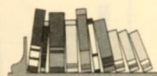
<u>colors</u>	<u>size</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

If sand grain size is less than 1 mm, estimate the size to the nearest fraction of 1 mm.

example: red 1/4 mm



RESOURCE PAGE



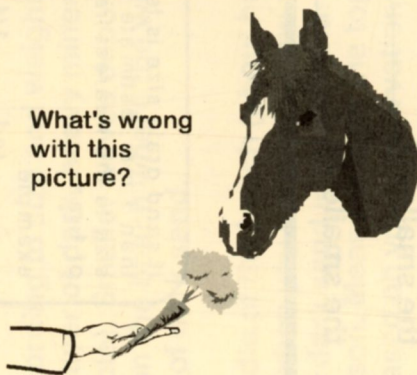
Poison Ivy

REMEMBER: LEAVES OF THREE, LET IT BE!

WARNING

Poison ivy is found in many Assateague habitats. It has groups of three, shiny green leaves. It can grow as a shrub, vine or ground cover. It can cause an itchy skin rash if you touch it.

What's wrong with this picture?



Conversions

1 centimeter = 10 millimeters

1 inch = 2.54 centimeters

Other Resources

- Assateague Island, Handbook 106 - William H. Amos, Division of Publications, NPS, 1980.
- The Young Naturalist - Andrew Mitchell, Usborne Publishing Ltd., 1982.
- Tideland Treasures - Todd Ballantine, University of South Carolina Press, 1991.
- The Ocean Book - Center for Marine Conservation, John Wiley & Sons, Inc., 1989.
- Ribbons of Sand - Larry Points & Andrea Jauck, Sierra Press, 1997.
- <http://www.nps.gov>



Created by: Gretchen Knapp
Thanks to the interpretive staff at
Assateague Island National Seashore
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This booklet is funded by Eastern National,
a National Park Service cooperating
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CENTIMETERS (cm)

1 cm = 10 millimeters (mm)

