Gateway

National Park Service
U. S. Department of the Interior

Gateway National Recreation Area
New York / New Jersey

This book belongs to
Junior Ranger

_____

Map
of
Jamaica Bay

Welcome to the Jamaica Bay Junior Ranger Program!

How to use this book:

Each symbol below represents one of the 4 sites of Gateway National Recreation Area – Jamaica Bay Unit that Junior Rangers will be exploring. Look for the symbol for each place to know which activities you need to do for the area that you are visiting.

Floyd Bennett Field

Jamaica Bay Wildlife Refuge

Jacob Riis Park

Fort Tilden

Junior Rangers that complete all of the activities for one site will receive a Junior Ranger Badge and Certificate.

Junior Rangers that complete the activities for all four sites will receive the Junior Ranger Patch!

So, let's start exploring Jamaica Bay!

What it means to be a Junior Ranger:

Being a Junior Ranger means living up to the Junior Ranger motto, "Explore, Learn, Protect."

1. Explore - Be adventurous! Go see and do the exciting things that America's National Parks have to offer.

2. Learn - Find the facts! There are a lot of really cool things that you can learn from the National Parks, including information about America's history, culture, and natural treasures.

3. Protect - Be a friend of the National Parks! Do what you can to make sure other people can enjoy the park after you.

Most importantly...

Experience your National Parks!!!

Things to Remember:

1. Watch out for poison ivy. Poison ivy can cause an itchy rash when touched.

2. Check yourself for ticks! Ticks are common around Jamaica Bay.

3. Bring all of your gear.

What to Bring?

Fill in the blanks in this story using the word bank, and then find the words in the word search beneath the story.

A short time ago, a boy and a girl went to visit the national park sites in Jamaica Bay. They wanted to be as prepared as they could be, so they thought about what they might need. First, they thought that they would need a bottle of _____, because they would get thirsty. Next, they would need sun protection, so they brought a _____with a bill, a high SPF_____ to protect their skin, and a pair of_____to protect their eyes. They also knew that there might be some insects that could bite or sting them, so they brought along a bottle of _____. Then they went off to have a fun, safe day exploring Jamaica Bay.

s	u	n	g	l	a	s	s	e	s	f
t	k	w	x	b	q	w	u	p	v	f
p	l	i	o	u	m	l	n	d	d	w
h	a	t	q	g	n	h	b	m	t	a
f	h	k	x	s	x	c	l	r	n	t
o	o	u	b	p	l	k	o	b	g	e
m	u	y	v	r	b	t	c	c	d	r
p	o	z	x	a	p	l	k	b	t	a
b	v	h	g	y	h	j	t	r	r	a
c	a	m	e	r	a	v	q	m	a	c
t	k	p	e	n	c	i	l	d	n	g

Word Bank

water
camera
sun block
sunglasses
bug spray
pencil
hat

What else would they want to bring, that could help them to become Junior Rangers? A_____, and a _____.

Wild in the City

Nature can be found all over the Jamaica Bay Unit of Gateway National Recreation Area. There is the wild Atlantic Ocean at Jacob Riis Park, plants and wildlife in Fort Tilden's back fort, along the old runways of Floyd Bennett Field, and throughout the Jamaica Bay Wildlife Refuge.

No matter where you go, there is nature to observe and enjoy. You might spy an osprey in the sky, a fish in the sea, or the three leaves of poison ivy. What other wild things might you see, hear, or feel?

The Old Shell Game

One thing you will find all along the shores and beaches of Jamaica Bay are shells...all kinds of shells. *See if you can match the shell with its name.*

Moon Snail

Piping Plover Egg

Clam

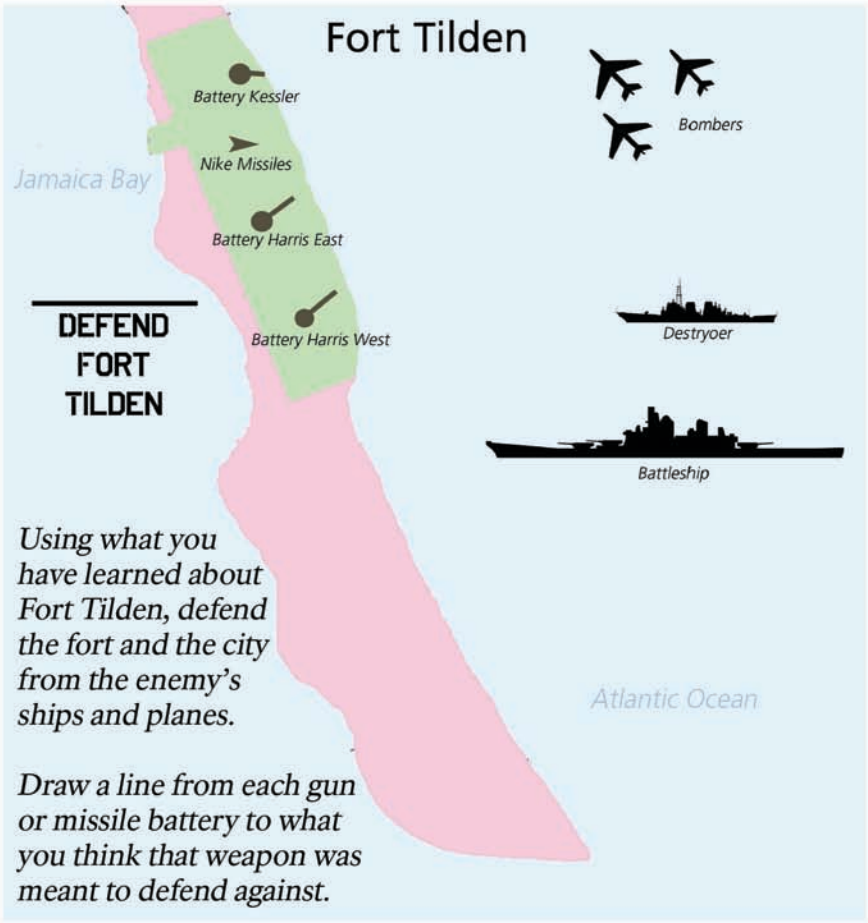
Flight Everywhere

One of the reasons that Jamaica Bay is so cool is because all around Jamaica Bay there is flight. If you look up and around, you might see airplanes, helicopters, birds, butterflies, and even bats if it is night time.

Turn around in a complete circle from where you are standing right now. As you turn around, look for anything that you can see that is flying. Write down what you see flying in the space below. If you don't see anything flying right away, try turning around a couple of more times.

Protecting New York City and the Harbor

From 1917 to 1974, the soldiers at Fort Tilden were responsible for protecting New York City and the harbor from attack by foreign countries. At first, the soldiers were defending against attacks from the sea by battleships. The 16 inch guns at Battery Harris East and West were meant to be used against the larger ships. Battery Fergusson's and Battery Kessler's 6 inch guns defended against smaller ships, such as destroyers. After 1954, Nike missiles defended the city against attacks from the air by bombers.



Using what you have learned about Fort Tilden, defend the fort and the city from the enemy's ships and planes.

Draw a line from each gun or missile battery to what you think that weapon was meant to defend against.

Gear

Soldiers carry many things with them when they are performing their duties. When people go to the beach or on hikes, they carry things with them, too. *Circle the things below that a soldier would need, and that you might need at the beach.*

Create Your Own Patch

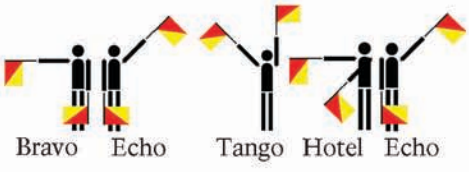
Patches can show a soldier's, sailor's, or marine's rank and unit. Many of those who have served our country receive medals for doing well during their service. Below are some medals that soldiers, sailors or marines serving at Fort Tilden or Floyd Bennett Field might have earned.

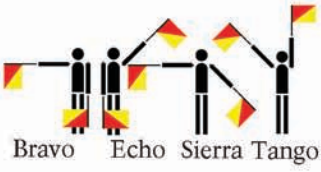
American Defense Medal | *Good Conduct Medal* | *World War II Victory Medal*

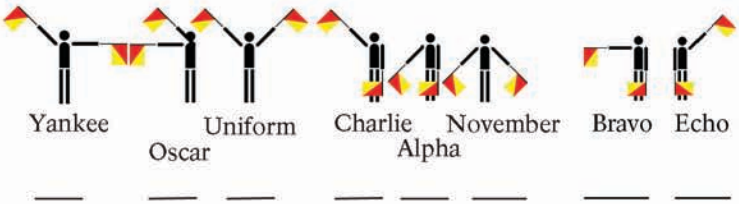
Create your own medal, ribbon, or patch in the space below, and tell why you would receive or wear it.

Sierra Alpha Yankee Hotel India

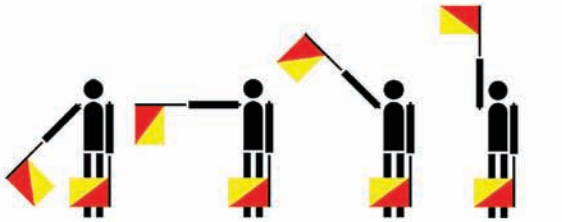
Sometimes it can be very difficult to communicate over long distances. Before there were radios and cell phones, the Army, Navy, U.S. Lifesaving Service, and the lifeguards at Jacob Riis Park used flags to talk to each other. This system is called *semaphore.* Also, each letter of the alphabet was given a name. *Using the chart on the next page, see if you can find out what the message below says.*





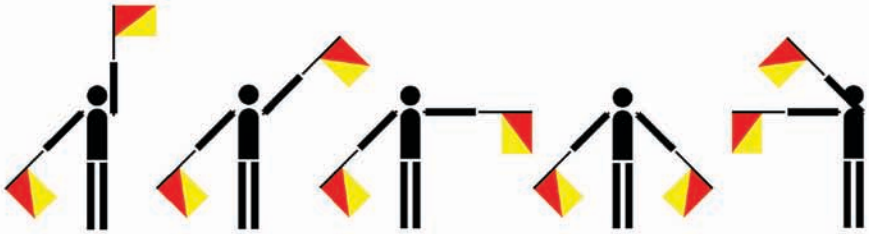


Semaphore and Alpha Codes



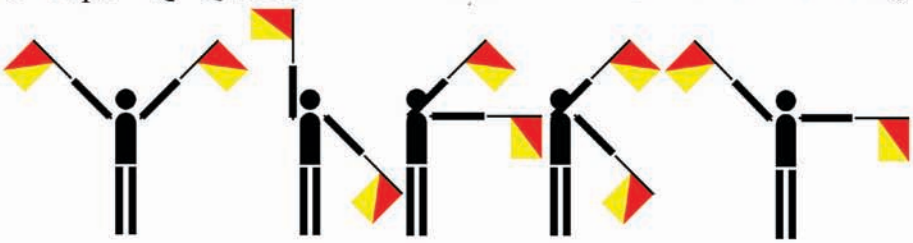
A - Alpha **B** - Bravo **C** - Charlie **D** - Delta

E - Echo **F** - Foxtrot **G** - Golf **H** - Hotel **I** - India **J** - Juliette



K - Kilo **L** - Lima **M** - Mike **N** - November **O** - Oscar

P - Papa **Q** - Quebec **R** - Romeo **S** - Sierra **T** - Tango



U - Uniform **V** - Victor **W** - Whisky **X** - X - Ray **Y** - Yankee

Z - Zulu

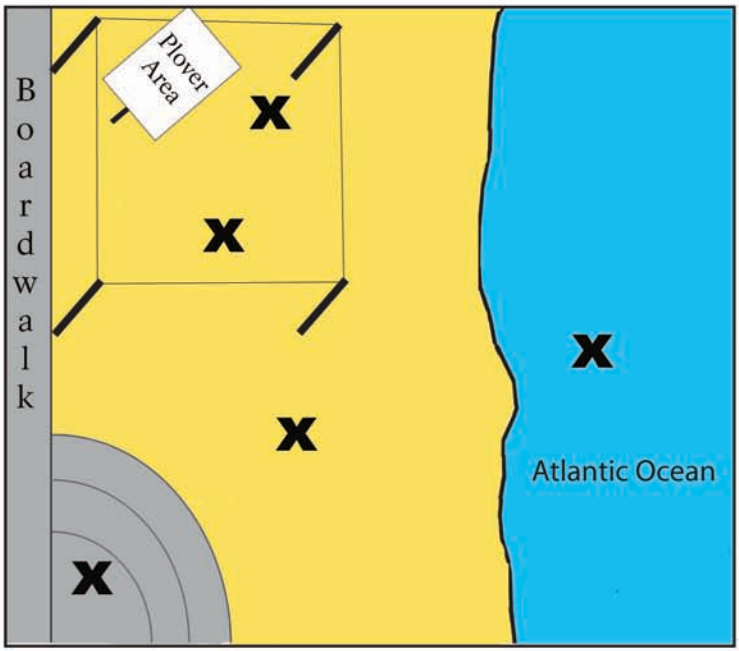
Psst...

You can make flags using paper and crayons. Use the flags and alpha codes to send secret messages to your friends and family!

Piping Plover

The Piping Plover mother is looking for somewhere to nest so she can safely lay her eggs. On the map below are some places marked with an "X" where she might nest.

*Circle the "**X**"'s where she should nest.*



The National Park Service protects the wildlife in our national parks. Some birds, like Piping Plovers, really need our protection because they are an endangered species. That means that they are in danger of disappearing forever. If they disappear, this will affect the biodiversity of our planet. Biodiversity is one of the things that helps to keep the Earth healthy, and the environment balanced.

Where are You From?

Jacob Riis immigrated to New York City from Denmark in 1870. Millions of other people have come from all over the world to live and work in New York, just like Jacob Riis.

Below is a map of the world's continents. Circle the the continent where you were born. Next, draw a square around the continent where your ancestors came from. For this, there can be more than one answer.

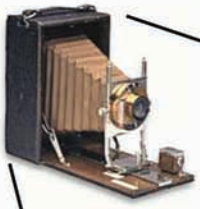
If you're not sure which continent you were born in, or where your ancestors are from, ask your parents or a relative.

At first, Jacob Riis found life very hard in New York. He eventually found work as a police reporter. He was determined to help improve the lives of his fellow immigrants and New Yorkers through his articles. He became one of the first reporters to use photos to show what he was writing about.

What Jacob Riis and I Saw at the Beach

Jacob Riis is named in honor of one of the first people to use photographs to tell a story. If Jacob Riis came to visit the park today, what would he see and photograph?

In the space below, draw what you think he would find interesting, and what story you think the picture would tell. Or, you can take your OWN photograph, paste it in the space, and tell a story about your visit!



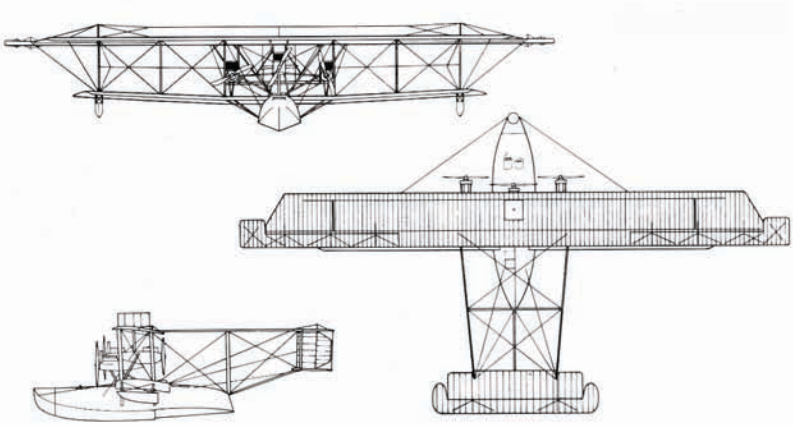
Paper Airplane Flight

Believe it or not, paper airplanes can teach us a lot about how things fly. They are really just small gliders.

For fun at home, you can fold the paper airplane at the end of the booklet. The instructions on how to fold it are on page 24.

Did you know...

The first crossing of the Atlantic Ocean by air was accomplished by the NC -4 in 1919. The flight left from the Rockaway Naval Air Station, which stood on the site of Jacob Riis Park!

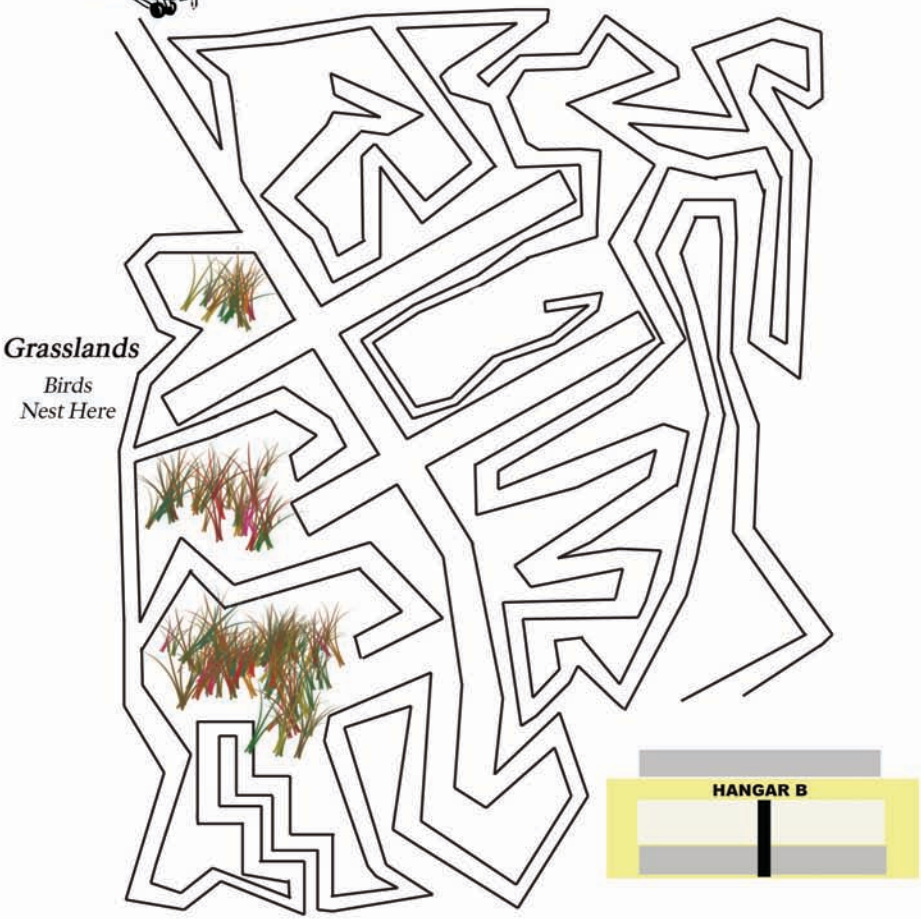


Control Tower Operator

The Ryan Visitor Center used to be the Administration Building for Naval Air Station - New York. At the top of the building is the control tower. From here, controllers would help direct pilots so that they would be safe in the air, and on the ground.

Imagine that you are the controller of the airport and a plane has just landed at Floyd Bennett Field. Direct the pilot through the field to Hangar B. You should go see Hangar B, too. There are LOTS of planes inside!

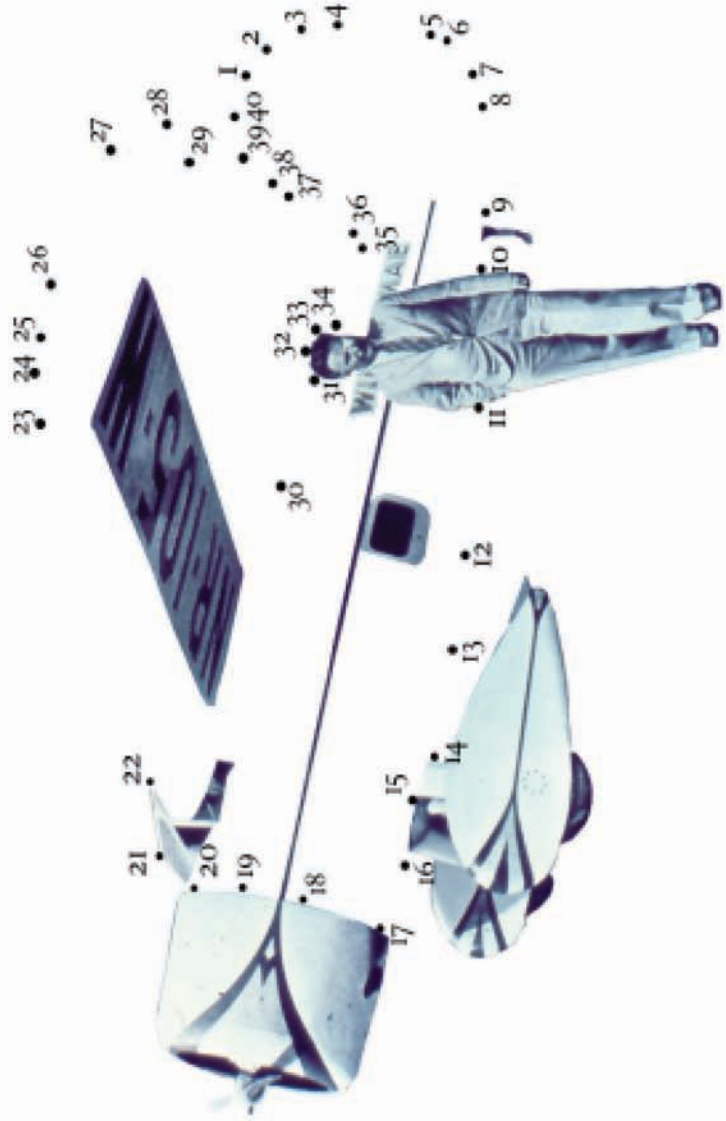
Start Here!



First Solo Flight Around the World

In 1933, Wiley Post became the first pilot to fly by himself, or solo, around the world. He left from Floyd Bennett Field on June 24, and returned 8 days later. The name of his plane was the *"Winnie Mae of Oklahoma City,"* a Lockheed *Vega.*

Connect the dots to see the whole plane



What is a Refuge?

The Jamaica Bay Wildlife Refuge is a safe place where plants and wildlife are protected from being disturbed, hunted or destroyed.

Just Passing Through...

Migration is a journey back and forth from one place to another that helps an animal have food and shelter throughout the year. Many birds migrate, and so do some butterflies, dragonflies, fish, and bats. The wildlife refuge is a migration destination, and a stopping place along the way for tired and hungry animals.

Inside, at the exhibit about migration, find the large map with three birds and their migration routes.

Which bird on this map migrates the farthest?

_____

Which bird on this map does not migrate?

_____

If you were migratory, where would you like to migrate to? And, why?

_____

Salt Marshes & Freshwater Ponds

Salt marshes and freshwater ponds help make the refuge special.

The salt marsh is a wetland habitat where grasses that can live in salty water grow. Salt marshes are homes to many wetland residents, such as horseshoe crabs and killifish.

Freshwater ponds are refuge for many birds, like Canada Geese, and mammals, like muskrats. Some freshwater ponds are homes to frogs and turtles.

People have and continue to use the wetlands of Jamaica Bay. American Indians fished in the bay. In Colonial times, Europeans fed their livestock salt marsh grasses. Over the past 200 years, people have filled in areas of the bay, creating islands such as the one the refuge is on. In what ways do humans use the wetlands today?

On the next page is a game of Wetlands Tic-Tac-Toe. You can play this game by yourself, or with someone else. Mark three items that you see on the trail or in the exhibits. Get all three in any row, either up and down, or across, or on the diagonal, and you will have Tic-Tac-Toe!

Wetlands Tic-Tac-Toe

Diamondback
Terrapin

Boat

Salt
Marsh

Osprey
Platform

Tree
Swallow

Gull

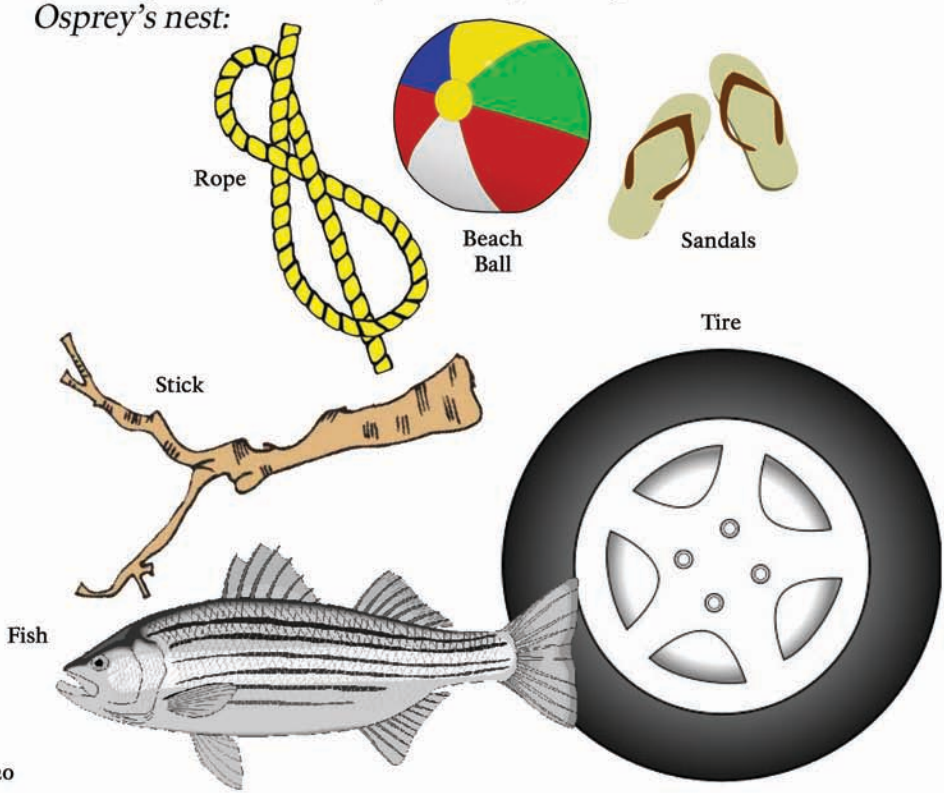
Clam

Phragmites

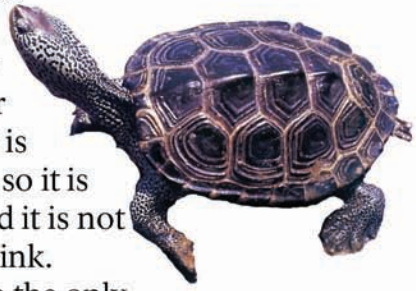
The Osprey's Dream House

Ospreys are migratory birds that spend the summer at Jamaica Bay. Ospreys eat mostly fish, which they catch with their talons. Find the nest platform outside off the West Pond Trail, and models of the birds at the inside exhibit. Ospreys build large nests out of sticks, and often include some surprising items.

Below are some objects that an Osprey might find near the refuge. *Circle the objects that you might find in an Osprey's nest:*



Terrapin Fingerprints



Thousands of Diamondback terrapins live in Jamaica Bay. Jamaica Bay is perfect for them, because the water is brackish. Brackish water is fresh and salt water mixed, so it is not as salty as the ocean and it is not as fresh as the water you drink. Diamondback terrapins are the only North American turtles that live all of their lives in brackish water.

In summer, the terrapins dig their nests around Jamaica Bay and lay their eggs in the sandy, soft soils. If you are at the refuge during this time, you might even see this happening! If you do, be very quiet and still. If you see a baby turtle, please do not disturb it.

Every turtle's shell, including the terrapin's, is unique to that individual turtle. This is similar to human fingerprints – each one is different.

If you had your very own shell like a turtle, draw what you would want your shell to look like in the space below.

Habitat Match - up

A habitat is a place where plants and animals live, and a habitat has shelter, air, water, food, and space. The habitats at the refuge include woodlands, grasslands, freshwater ponds, salt marshes, and bay. Gray tree frogs live in the freshwater ponds. Monarch butterflies live in grasslands. Some animals cross between habitats, such as Snow geese, which use the marsh, the bay, and the freshwater ponds.

Match the plants and animals with their habitats.

Prickly Pear Cactus

Salt Marsh

Gray Squirrel

Grasslands

Horseshoe Crab

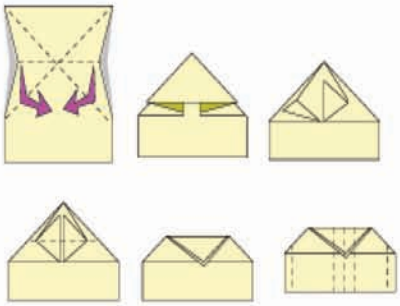
Fresh Water Pond

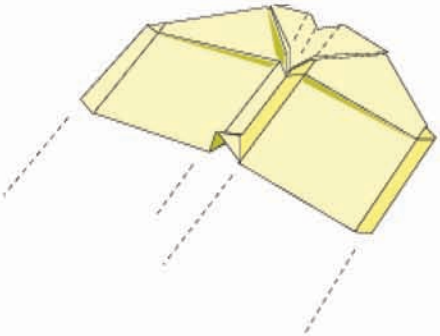
Gray Tree Frog

Woodlands

Paper Airplane

Making a Paper Airplane





The Plane

- Flip the paper over so that the printed fold lines are facing down.

- First fold forward, crease and open back up along both diagonal lines. Also fold back on the horizontal line and reopen.

- Then pull and tuck the folds together as shown in the first two drawings.

- Now fold the corners of each triangle up, almost to the center line.

- Fold the nose of the plane back.

-Fold up along the center line and then fold down each wing.

Remember...

Paper airplanes can tell us a lot about how things fly. They are also fun to make and fly, but they shouldn't be thrown at other people. When you are done with your plane, please recycle the paper.

Junior Ranger Journal

Use this page to write about, or draw things that you find interesting during your visit to Jamaica Bay.

Printed on 100% recycled paper
using vegetable based inks.

Junior Rangers *always* recycle!

This Junior Ranger program was produced by park staff and Student Conservation Association Junior Ranger Ambassador Rikki Wise, through a grant from the National Park Foundation.

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