

PEOPLE AND THE LAGOON

To better understand how people affect the lagoon, start by studying the map on the next page.

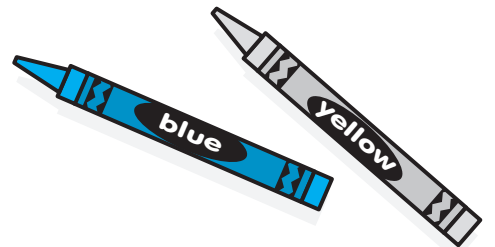
Materials needed: A pencil and blue, green, orange and yellow crayons.

1. What is the name of your state?
Using a pencil, write it on the map.
2. What county do you live in?
Using a pencil, write it on the map.
3. What is the name of the town you live in?
Locate it or write it on the map and draw an orange circle around it.
4. The Indian River Lagoon is an,
that is, a body of water where fresh and salt water meet and mix.
5. Freshwater enters through,
and

How many creeks and canals can you find on the map? Color them blue.

6. Salt water from the ocean enters through
How many inlets are there in the Indian River Lagoon?
Color the ocean and inlets yellow.

7. Color blue in this square.
Now color yellow over the blue.
What color do you get when the
two colors are combined?



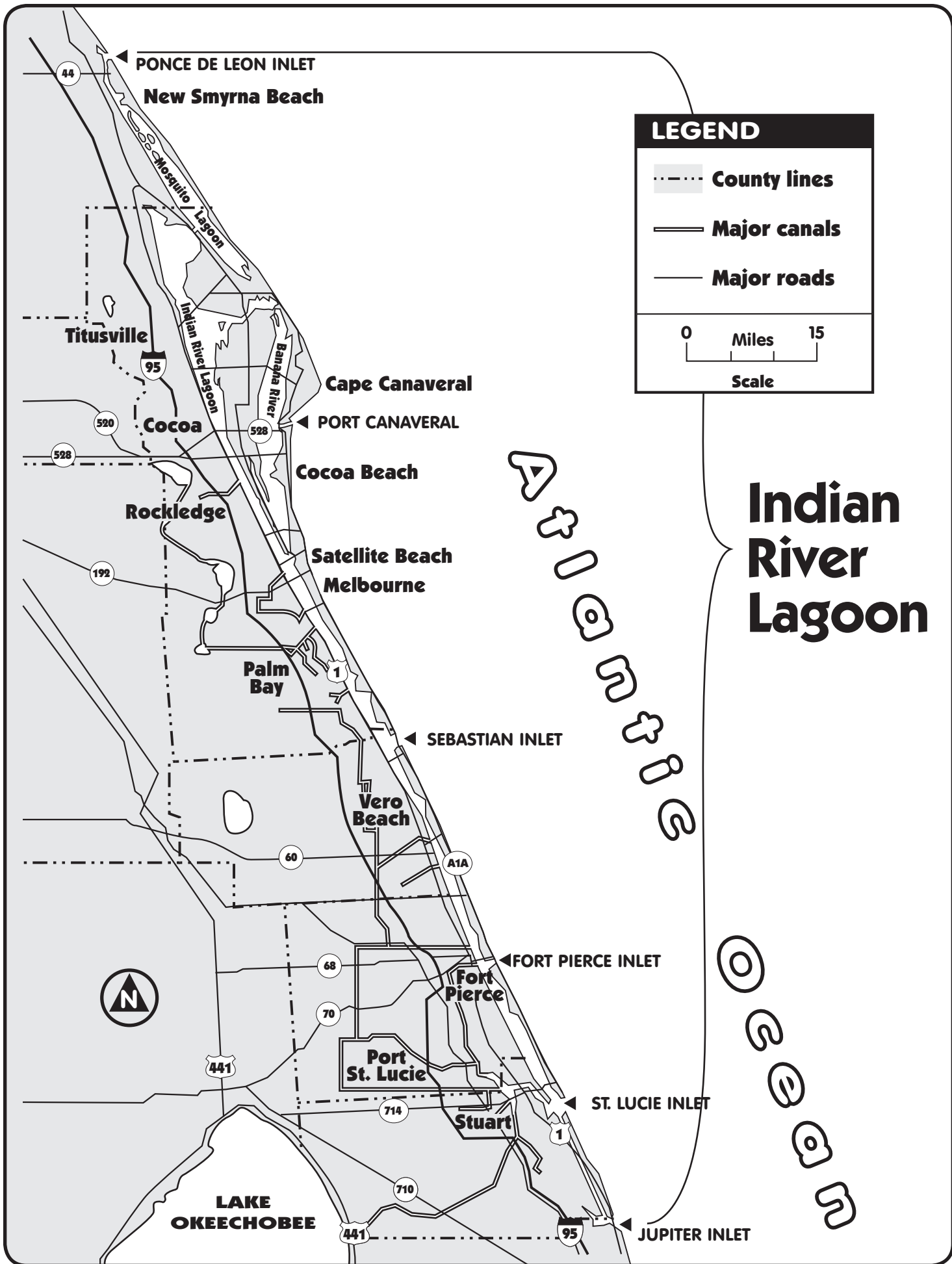
8. On your map, you colored freshwater blue and salt water yellow. Freshwater and salt water combine in the Indian River Lagoon, so color the lagoon green.

All over the world people like to live near estuaries. Why do you think this is so?

.....

Notice how many towns are built along the Indian River Lagoon.

Many people are moving into the area every year. The increasing number of people is causing many problems for the lagoon.



← PONCE DE LEON INLET
New Smyrna Beach

LEGEND

- County lines
- == Major canals
- Major roads



Indian River Lagoon

Atlantic

Ocean

Titusville

Cape Canaveral

Cocoa

← PORT CANAVERAL

Cocoa Beach

Rockledge

Satellite Beach

Melbourne

Palm Bay

← SEBASTIAN INLET

Vero Beach

← FORT PIERCE INLET

Fort Pierce

Port St. Lucie

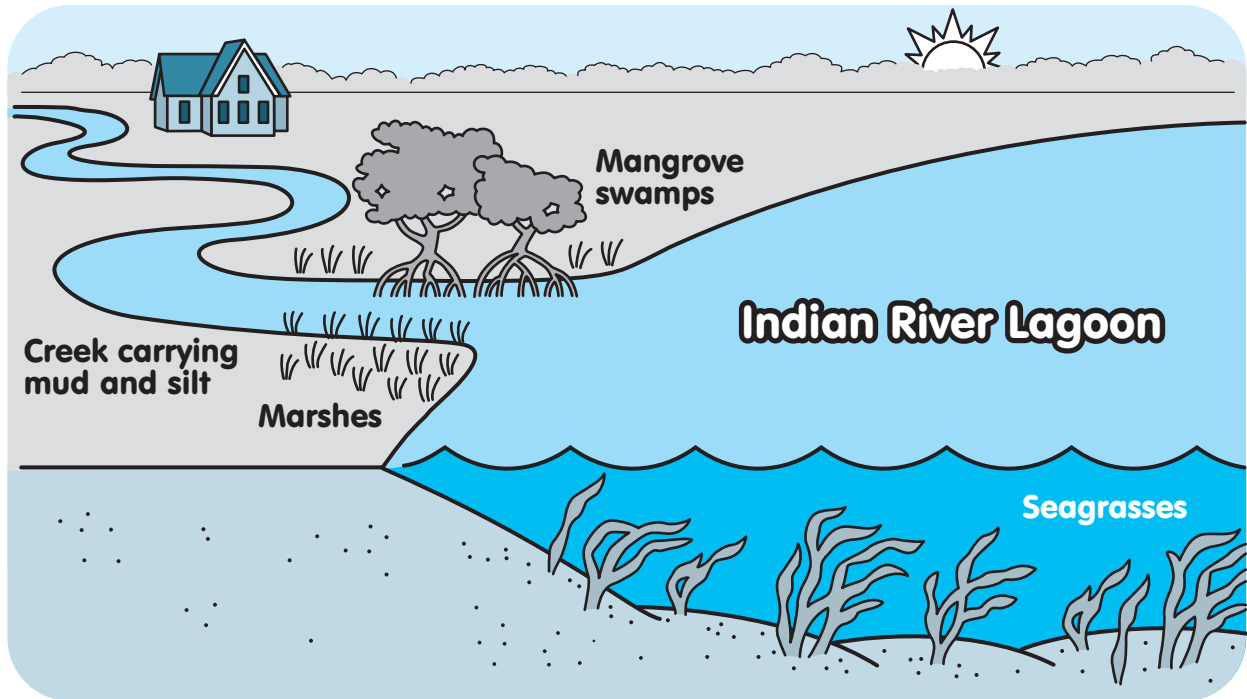
← ST. LUCIE INLET

Stuart

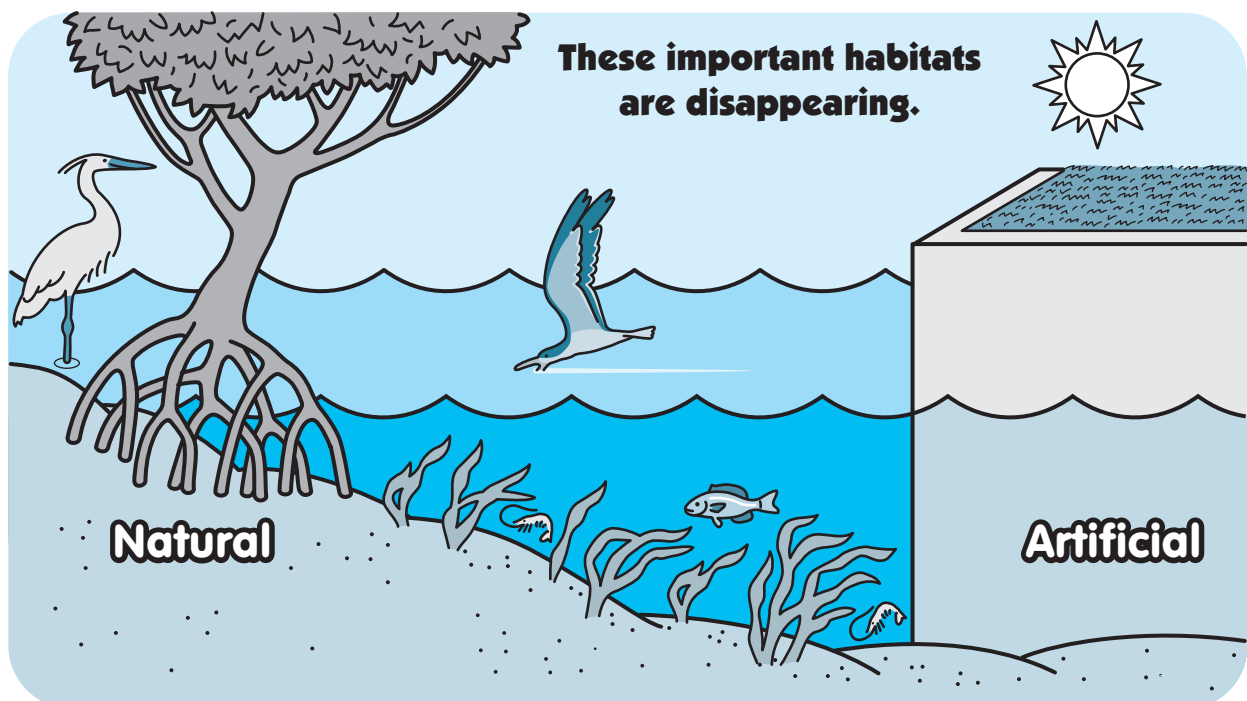
LAKE OKEECHOBEE

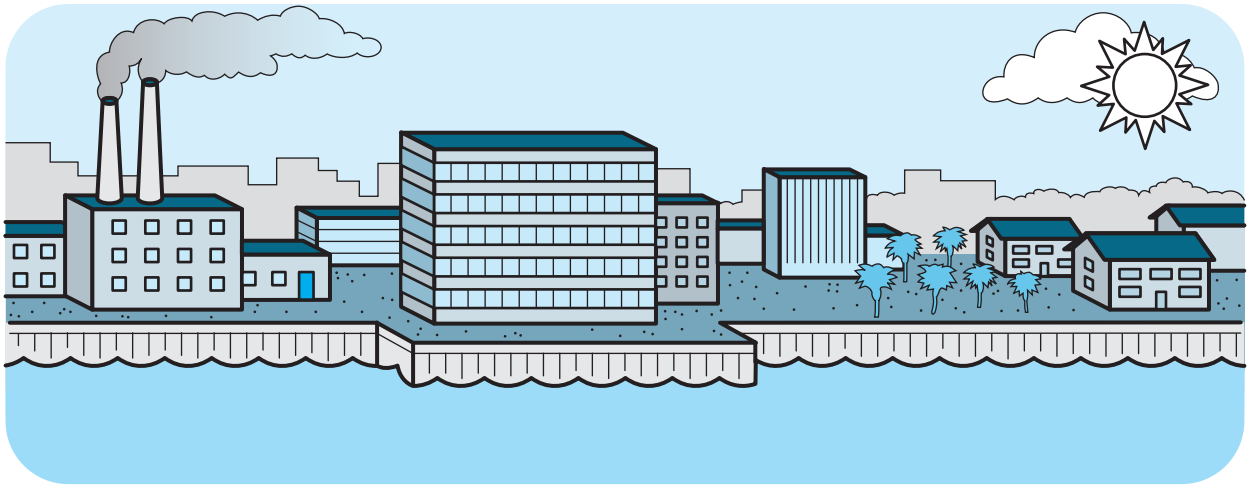
← JUPITER INLET

Plants growing along the lagoon's shore are very important to its health. Mangrove swamps and salt marshes cleanse the water flowing through them before it reaches the Indian River Lagoon.



As water slowly passes through the swamps and marshes, mud and silt can settle out. Fast-growing marsh plants absorb excess nutrients that could cause problems for the Indian River Lagoon. Mangroves and salt marshes also provide a nursery area for young organisms and a food source for many of the animals that live in the lagoon.

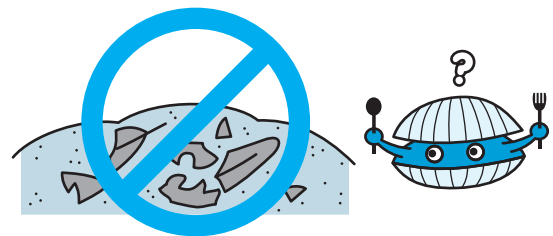
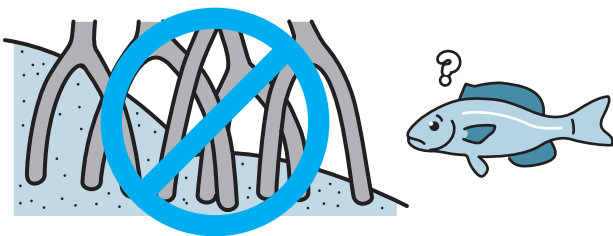




Marshes and swamps are shallow, and many have been filled with soil to make new land for houses and industry. Thousands of acres of mangroves were lost by the construction of mosquito impoundments, which is a method used to control mosquito populations. Dikes were built around high mangrove marshes and then filled with water so that the female mosquito would not be able to find any moist soil on which to lay her eggs. A **dike** is a bank or mound, usually of earth, built to control or confine water. The roots of the mangroves were covered with water, and the trees suffocated.

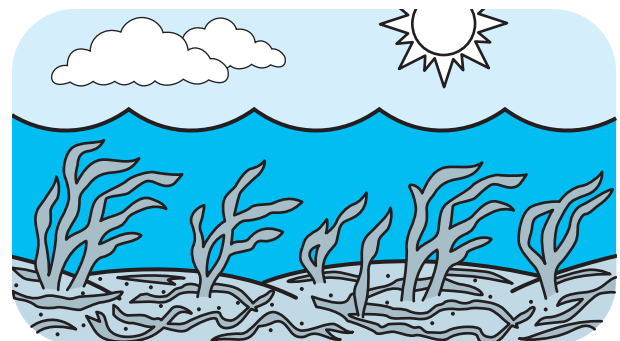


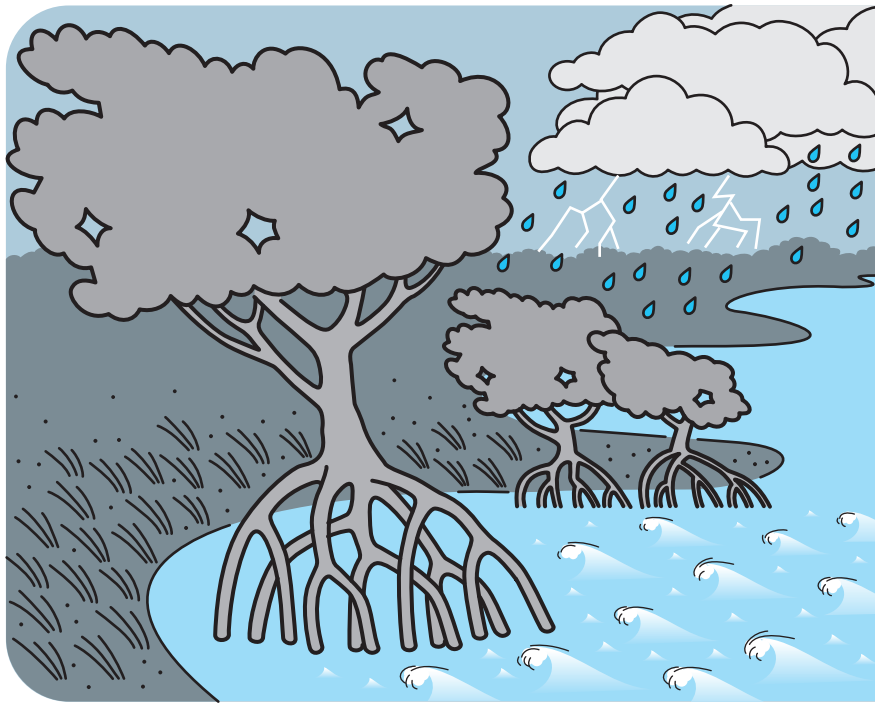
Loss of mangroves and marsh grasses removes some important producers from the lagoon's food chains and reduces the estuary's ability to function as a nursery. How would this affect the fish and clams that live in the lagoon? Would it affect all of the animals?



When these marshes and swamps are removed, turbid (cloudy) water flows directly into the lagoon. What does this do to the seagrass?

If the seagrass dies, who will be affected?

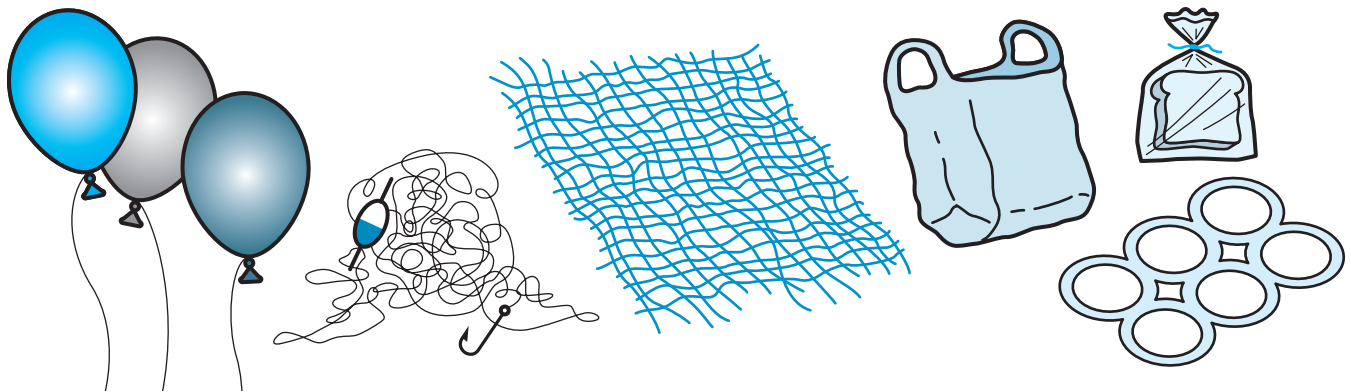




The roots of mangroves and marsh grasses hold the soil in place and keep the shore of the Indian River Lagoon from eroding, or washing away. This is especially important during storms. When these plants are removed, valuable shoreline protection is lost.

Litter is a problem on the **spoil islands** and throughout the lagoon. To many animals, litter looks like food. A floating plastic bag looks like a jellyfish to a hungry sea turtle. If large pieces of plastic are eaten, the animal's stomach becomes lined with it. This prevents digestion, and the animal will starve. Another type of litter which can be deadly to animals is discarded fishing line and nets. Animals can become trapped, which may result in death from drowning, starvation or strangulation. Plastics left in or near the water can kill many animals.

How long do you think it takes for plastic to rot?



With the increasing numbers of people using the Indian River Lagoon and its resources, there is a need for conservation. **Conservation** is the protection and sensible use of our natural resources, such as forests, animals and estuaries. To protect the Indian River Lagoon, we need to understand how it works — how the lagoon's plants and animals are dependent on each other. We also need to know how people affect the lagoon through their activities. This information is collected through scientific research. After the information is collected, it needs to be shared with people through education.

How can information about the Indian River Lagoon be shared? List at least three ways.

1. _____

3. _____

2. _____

4. _____

Will you help spread the news?

Gaining more knowledge about our natural resources can help us conserve them better. An example of this is the establishment of the Florida Aquatic Preserve Program. As people realized the importance of estuaries, they felt these special areas deserved better protection. As a result of this concern, much of the Indian River Lagoon system, consisting of the Indian River, the Banana River and the Mosquito Lagoon, has been designated as aquatic preserves.

Aquatic preserves are special areas of underwater lands and associated waters to be maintained in their natural condition. Aquatic preserves are managed by the Florida Department of Environmental Protection (DEP) for the people of Florida. DEP has special rules to protect mangroves, seagrasses and other plants and animals that live in the aquatic preserves.

For us to ensure that the Indian River Lagoon and its inhabitants have a place in Florida's future, we may have to refrain from doing certain things. There may be areas where we should reduce our boat speed to protect manatees, or places where we shouldn't build a dock or **dredge** in order to protect seagrasses. When we take care of the lagoon and its plants and animals by giving a little, we receive much in return.

Don't you think so?

