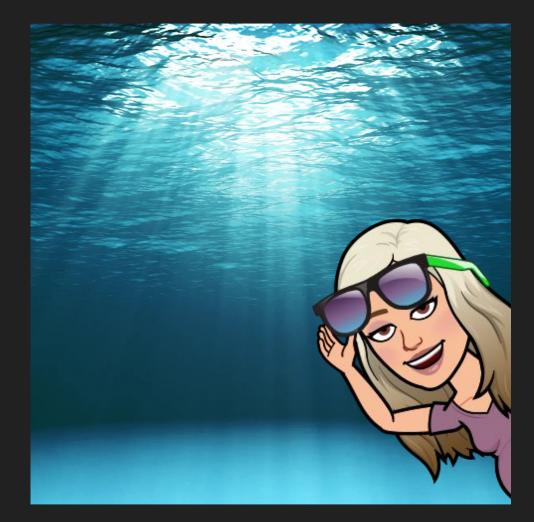
# Ocean Habitats Fourth Grade 2020-2021

As part of our Ocean Habitat study, students choose a marine habitat and modeled it in a diorama with a partner. Students were asked to think of ways to conserve this habitat and wrote a description of this marine environment.





The Open Ocean

### The Open Ocean

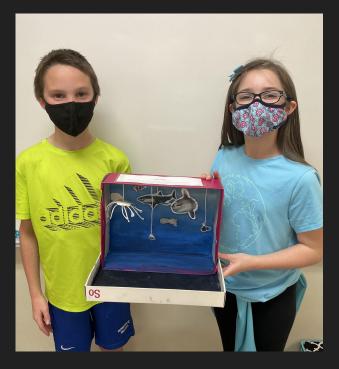
By Miles, Aidan, and Wilson

The open ocean includes all oceans and all depths. There are many different species of animals. Larger marine animals most likely eat shrimp or small fish. There are 5 different zones to every ocean on Planet Earth. The sunlight, twilight, midnight, abyss, and the trenches. Ordinary fish live in the sunlight zone Sharks, whales and other large fish live in the sunlight and in the twilight zone. Some glow-in-the dark fish live in the midnight zone and small fish live in the abyss. Only plankton and other unknown animals can live in the trenches. The Open Ocean is constantly being endangered by boats crossing the ocean that leaves behind gas and pollutants as well as trash from the boats being thrown into the ocean. A way of preventing that is throwing your trash in the trash can and putting recyclables in the recycling bin. Another helpful tip is you can put weights in the bottom of trash cans to prevent it from knocking over and creating litter. Please prevent this!



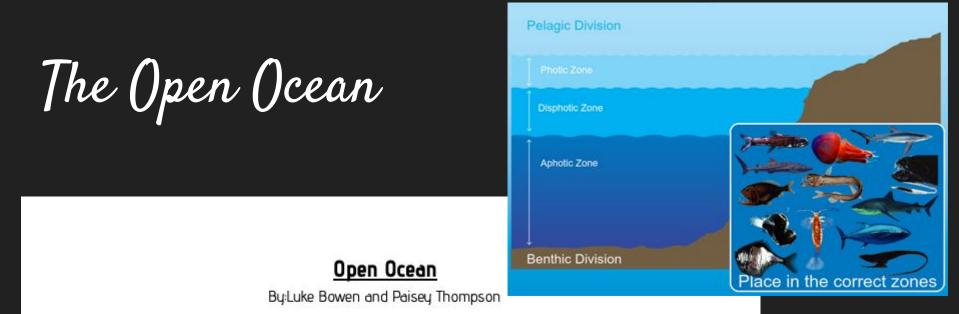
### Miles Glienke, Aidan Marshall, Wilson Cowart

# The Open Ocean





### Luke Bowen and Paisey Thompson



The open ocean has all 5 zones. The names of these zones are Sunlight, Twilight, Midnight, Abyss, Trenches. The threats to the open ocean are overfishing (overfishing is when you fish too much), Pollution (pollution is when someone litters/when harmful material is released into the air such as Co2) and Climate change (climate change is a long-term change in the average weather patterns).

### Luke Bowen and Paisey Thompson

Estuaries





Sofia Booth



### <u>Estuaries</u>

By: Sofia Booth

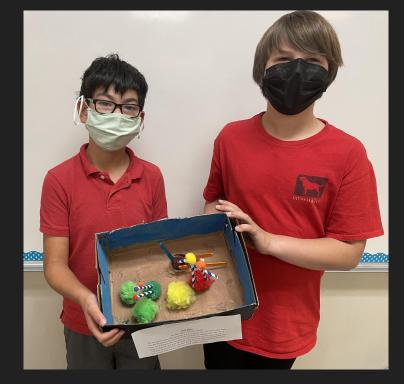
Estuaries are rivers of brackish water. Estuaries are nurseries for all kinds of animals! Estuaries are very pretty too. Estuaries have birds, and shrimp and crabs and many different kinds of fish in them.



Sofia Booth

Coral Reefs





### Jake Taylor and Tripp Hughes

Coral Reefs



### Coral Reefs

By: Jake Taylor and Tripp Hughes

This ecosystem is the coral reefs which are very colorful. The coral reefs house many animals like Butterfly fish who have sharp dorsal fish or sponges who have lots of holes. Some threats to the coral reefs are fishing anchors and any other type of harmful interaction with them. Of course pollution and climate change also destroys coral reefs. The protection of coral reefs mainly relies on someone standing up and taking charge. There are also several laws that protect coral reefs.

### Jake Taylor and Tripp Hughes

# Coral Reefs

### Coral Reef

Coral Reefs give homes to many animals. It has vibrant colors. Coral Reefs are made out of polyps. They take thousands of years to form. They also give us protection from storms. Where some Coral Reefs can be found

Cora Lee

- Indonesia
- Australia
- Philippines
- France
- United Kingdom

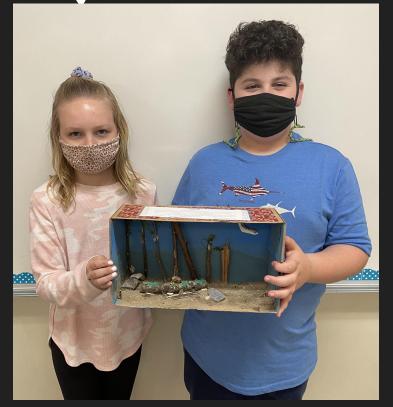
#### Threats

- Rising water temperatures This will lead to bleaching coral
- Overfishing It can affect the entire ecosystem.
  Recreational Impacts
- The anchors will break the corals

#### Human Impacts

Wear mineral-based sunscreen
 Catch and release fish
 Don't take the coral







## Avery Willis and Nicholas Wine





### Mangroves

By Avery Willis and NicholasWine

Mangroves are a swampy environment full of branches, rocks, and fish. The water there is swampy and muddy. The fish are well adapted to this. There is lots of moss and wild growing grass everywhere. Mangroves help fight coral bleaching which is good! One thing about Mangroves is there are dangerous animals. Such as a snake, an alligator and more. Mangroves are in great danger. People are building on top of them if you happen to run into one please be careful!

## Avery Willis and Nicholas Wine

Mangroves





## Henry Walters, Luke Nelson and Drew Phillips





## Mangroves

By Henry Walters,Luke Nelson, and Drew Phillips.

The Mangroves are basically a mixture of marshes, trees, and part fresh part salt waters. The Mangroves are really cool and they protect lots of underwater life, for example fish. The fish use the roots as protection from predators. The fish also use it as a safe breeding ground. The threat to mangroves are people cutting them down for building. Also, people used to think they were smelly and did nothing so they cut them down. Today, most mangrove forests are protected by national parks and park rangers to support the animals in this ecosystem.

> Henry Walters, Luke Nelson and Drew Phillips

Lagoons





## Lal Akpinar and Henry Walcoff





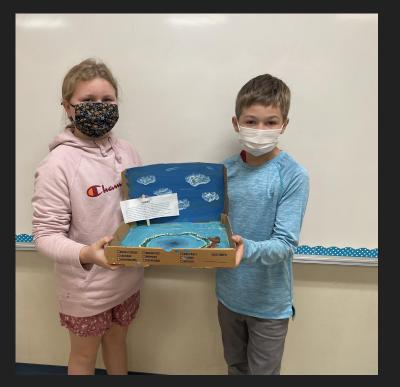


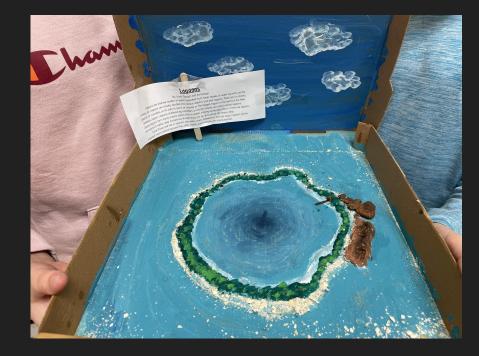
By:Lal Akpinar, Henry Walcoff.

Lagoons are separated from larger bodies of water by sandbars, barrier reefs, coral reefs, or other natural barriers. There are two types of lagoons: atoll and coastal. Somethings that danger the wild life here are: Salinity, Storm Water, Tides, Human Effects, Dredging and Shoreline Hardening. We need to protect the animals here including the Dolphins, Manatees, Tarpons, Pelicans, Sea Turtles, Alligators that often call this habitat home.

## Lal Akpinar and Henry Walcoff

Lagoons





## Ila Sawyer and Isaac Sayyer





## <u>Lagoons</u>

By: Isaac Sayyer and Ila Sawyer

Lagoons are shallow bodies of water separated from larger bodies of water by reefs, barrier islands, ect. Lagoons are usually divided into coastal lagoons and atoll lagoons. There are no sharks, jellyfish, or crocodiles so it's safe to swim or snorkel in. The biggest lagoon in the world is the New Caledonia Lagoon. Lagoons sheltered by sandbars or barrier islands are called coastal lagoons. Coastal lagoons form along coastal plains-flat or slightly sloping landscapes. Most of the time lagoons are around 20 metres deep. Sometimes though they can go up to about 60 metres deep.

Some things that live in lagoons are crabs, snails, tubeworms, and sea slugs. Lagoons are an important marine habitat because they offer shelter and a nursery for young animals.

## Ila Sawyer and Isaac Sayyer

## Salt Marsh





### Kate Jackson and Lilah Ross



### <u>The Salt Marsh</u>

### By:Kate, and Lilah

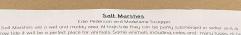
Salt Marshes are mostly found in Georgia. They are stinky and have a lot of pluff mud. They are coastal wetlands that are flooded and brought in by tides. They provide food, shelter, and nurseries for many fish. Some other animals found here are clams, mussels, oysters, fidiler crabs, and shrimp

There are many threats to this habitat including Climate-change effects, pollution, land use change, and invasive species. People are protecting our marshes by giving back the landfills we made and giving them back the salt



## Kate Jackson and Lilah Ross





Sait Marshes are a wer and muddi, area A high tide they, can be partity submicing in water and a tow tide it will be a partical points for animals. Some animals nucliding crabs and marsh tupics of birts, live there for crabs it gives a nice home and the birds get tots of load. The sait marshes how taks of dongers. Before people hower marshes are good and not both shaked their thought they were uply, so they built buildings and bridges. This hormed the sait marshes how most sait marshes are safe due to the government preserving them.



## Edie Pederson and Madeliene Scoggan



### Salt Marshes

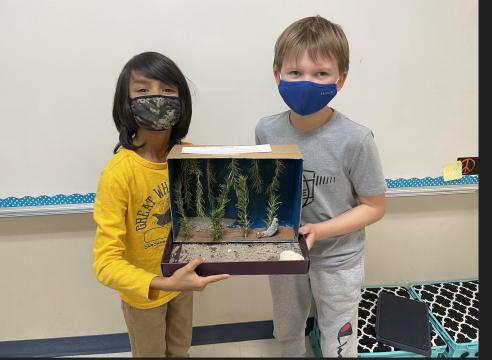
Edie Pederson and Madeliene Scoggan

Salt Marshes are a wet and muddy area. At high tide they can be partly submerged in water and at low tide it will be a perfect place for animals. Some animals including crabs and many types of birds live there. For crabs it gives a nice home and the birds get lots of food. The salt marshes have lots of dangers. Before people knew marshes are good and not bad. Instead they thought they were ugly, so they built buildings and bridges. This harmed the salt marshes. Now most salt marshes are safe due to the government preserving them.



Edie Pederson and Madeliene Scoggan

Kelp Forest





### Zim Dukes and Landon Hanak

Kelp Forest

### Kelp Forest

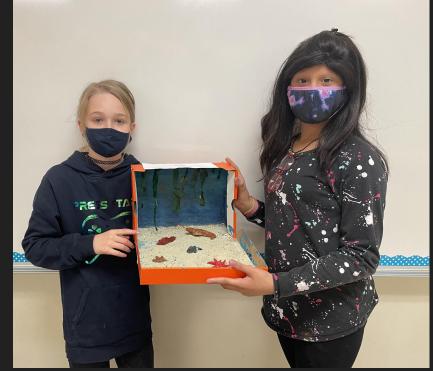
By: Landon Hanak and Zim Dukes

Kelp forests are found in subtidal regions throughout the world where nutrients, light levels, temperatures and ocean currents are cold. Animals That live in the kelp forest are otters and sea manatees. Fish, marine mammals,birds,snails,bristle worms,and brittle stars also live in this habitat. How we are protecting it? We are not swimming or taking stuff from this habitat. Boats must stop dropping anchors and breaking the kelp which is a nursery for many animals.



Kelp Forest





## Gracie Debreceny and Laya Mirchandani

Kelp Forest



### Kelp forest

Laya Mirchandani and Gracie Debreceny

Kelp forests are underwater ecosystems by the dense growth of several different species of kelp Kelp are a large type of algae plant that lives in cool relatively shallow water close to the shore. Kelp in these forests grow very fast. As much as 18 inches per day. These underwater towers of kelp provide food and shelter for thousands of fish, invertebrates and mammal. Kelp forest are and important nursery for many animals and a safe environment from predators.

## Gracie Debreceny and Laya Mirchandani







### Annabelle Lee and Abigail Roberts

## Intertidal Zone



### Intertidal zone

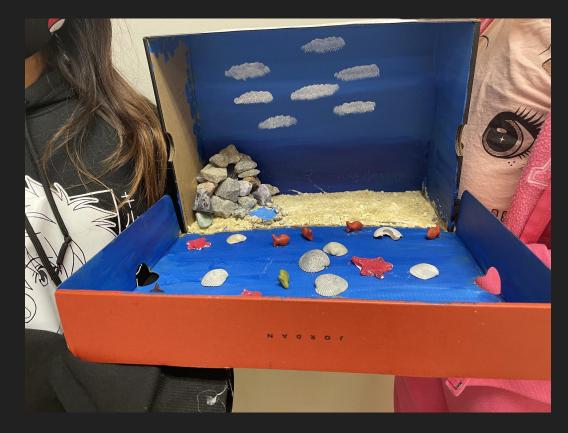
By Annabelle Lee and Abigail Roberts

Our habitat is the intertidal zone. The intertidal zone is the zone that is above sea level at low tide and below sea level at high tide. This zone can include various types of life, such as sea stars, sea urchins, and many types of coral. The intertidal zone also includes rocky cliffs and sandy shores. Some threats to this zone include, sea level rise, erosion, and rising temperatures. Some things we can do to protect the intertidal zone include not throwing your trash overboard on a boat, conserving water, not being wasteful, and picking up trash.

### Annabelle Lee and Abigail Roberts







### Mickiyah Fields and Paige Pham

### Mickiyah Fields and Paige Pham



## Intertidal Zone

### <u>Intertidal Zone</u>

#### Paige Pham and Mickiyah Fields

The intertidal zone is where the water meets land and is known for the seashore and Foreshore. The water is above water level at low tide and underwater level at high tide. This area can include several types of habitats with various species of life, like sea stars, sea urchins, and many types of corals. The Intertidal zone is important because it maintains sea and land and provides food and habitats for sea animals. The Intertidal zone is about To protect the Intertidal zone DON'T throw trash overboard, reduce oil leaks, keep boats out of sensitive places like the seagrass areas, and use designed pumpout stations. The temperature in the Intertidal zone is 75f-105f since it is located on the coast. Tide pool animals and plants are well adapted to the intertidal environment; they need to be able to last a good amount of time when exposed to air, they must adapt to survive the constant pounding of waves and extreme temperatures. Animals like crabs and snails have hard shells to protect them during the low tide. Mussels group tightly together to individual exposure to sunlight. The most common plants in the Intertidal zones are species of seaweed, sea lettuce, sea palms, and green algae. This is why the Intertidal zone habitat is so important.