

# Adaptable Aliens

## Activity Time:

- 10-30 minutes

## Age Group:

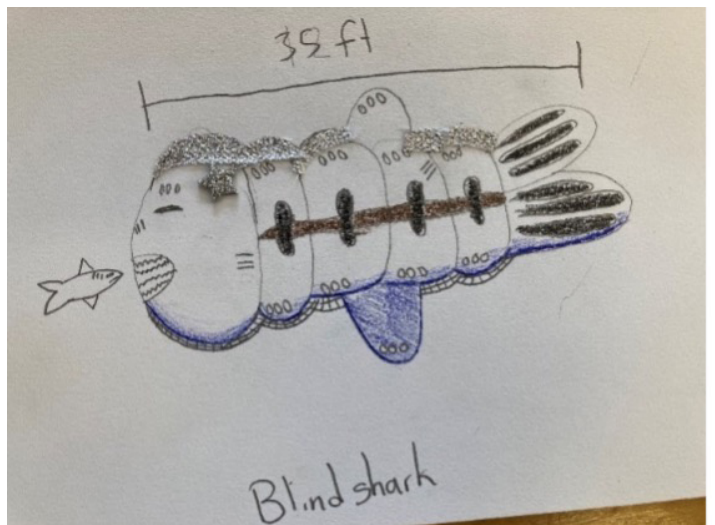
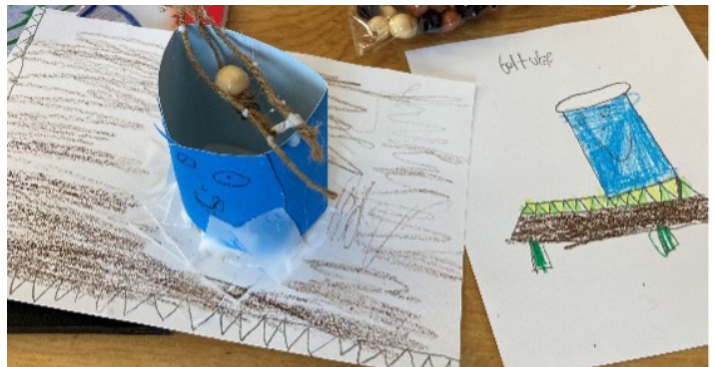
- Ages 4 and up

## What's the Point?

- Adaptations are unique characteristics that plants and animals have that help them survive in their environment.
- Ocean animals have many different types of adaptations depending on how deep or shallow they live, what they eat, and how they can defend themselves against predators or other environmental hazards.
- In addition to studying our own world, NASA is exploring [Ocean Worlds](#) throughout our solar system and beyond. Our oceans make life possible on Earth. There are also several moons and dwarf planets which have salty oceans beneath icy surfaces—places where life could potentially exist!
- Using our knowledge of life on Earth may help us make predictions about what life might look like on other places in our solar system and beyond.

## Materials:

- Photos of ocean animals
- Table sign with patron instructions
- Images or a model of an “alien” with three adaptations
- Various craft supplies, such as:
  - Chenille sticks
  - Googly eyes
  - Markers
  - Pencils
  - Glue
  - Tape
  - Colored tissue paper
  - Puff balls
  - Craft sticks
  - Drawing paper
  - Toothpicks
- (Optional) Internet access and a projector to show the video [Do Aliens Exist? We Asked a NASA Scientist](#)



## Preparation:

- Set up a space with a table and chairs for patrons to engage in a craft activity.
- Print the photos of ocean animals and the table sign and display on the table.
- Lay out craft supplies on the table.
- Create your own “alien” with the materials and display on the table as an example.

## Facilitation tips:

- Show patrons the short video [Do Aliens Exist? We Asked a NASA Scientist](#) (*Optional*).
- Ask patrons to imagine they’ve discovered another ocean world out in the Universe, and much like our own ocean, it is where life on that planet began!
- Encourage them to look through the photos of animals in Earth’s oceans. What adaptations do they have to survive?
  - Examples: Dolphins are mammals that need to breath air so they have a blowhole; Anglerfish live in the dark depths of the sea so they have bioluminescence to see; Green Sea Turtles have hard shells to protect them from predators.
- Challenge patrons to create their own “alien” that has three special adaptations to survive on the ocean world, using the craft materials on the table.
- When they are finished, invite patrons to share their creations. Can others guess what the adaptations are? Ask them: How does your alien’s adaptations help it survive?

## Table Sign

# Create your own “alien” that lives on an ocean world!



- 1:** Identify three adaptations that help your alien survive in an ocean world. Check out the pictures for ideas!
- 2:** Use the art supplies to build your alien.
- 3:** Give your alien a name.

## Table Sign

# ¡Crea tu propio “alienígena” que vive en un mundo marino!



- 1:** Identifique tres adaptaciones que ayudan a tu extraterrestre a sobrevivir en un mundo marino. ¡Echa un vistazo a las imágenes para obtener ideas!
- 2:** Usa los materiales de arte para crear tu extraterrestre.
- 3:** Nombra a tu extraterrestre.

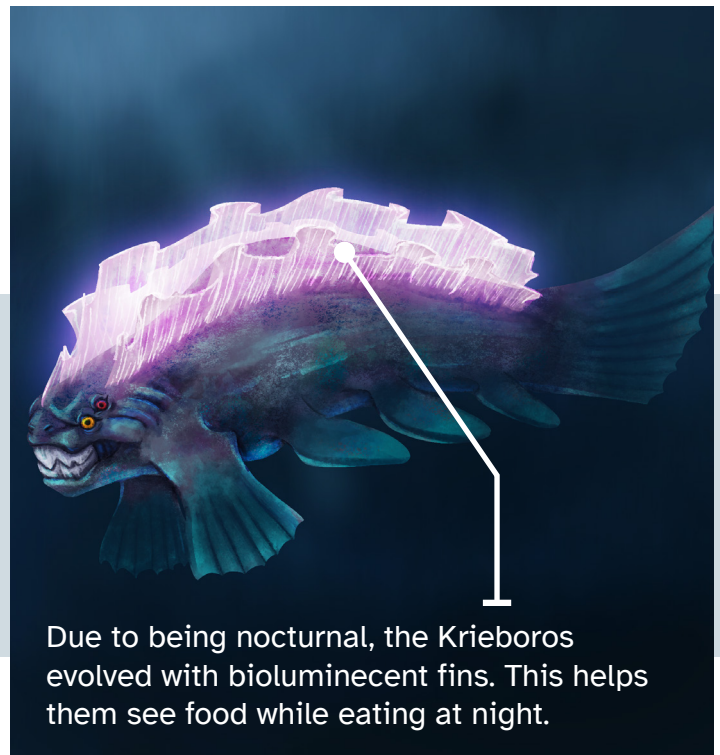
# Ocean Adaptations

## Krieboros

These newly discovered creatures are very slow moving grazers that enjoy floating in the water at a slow pace. While possessing very strong jaws these creatures are docile omnivores. They are mostly solitary but form groups during mating season.

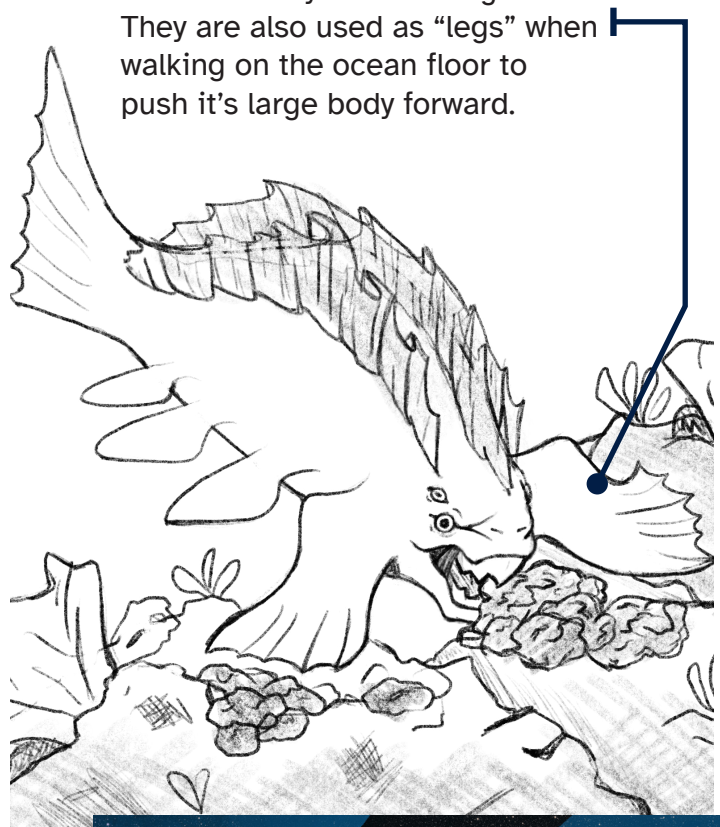


The Krieboros' diet consists of coral-like organisms and thus developed very strong teeth-like jaws. They are constantly grazing on anything on the ocean floor in order to provide energy for their large bodies.



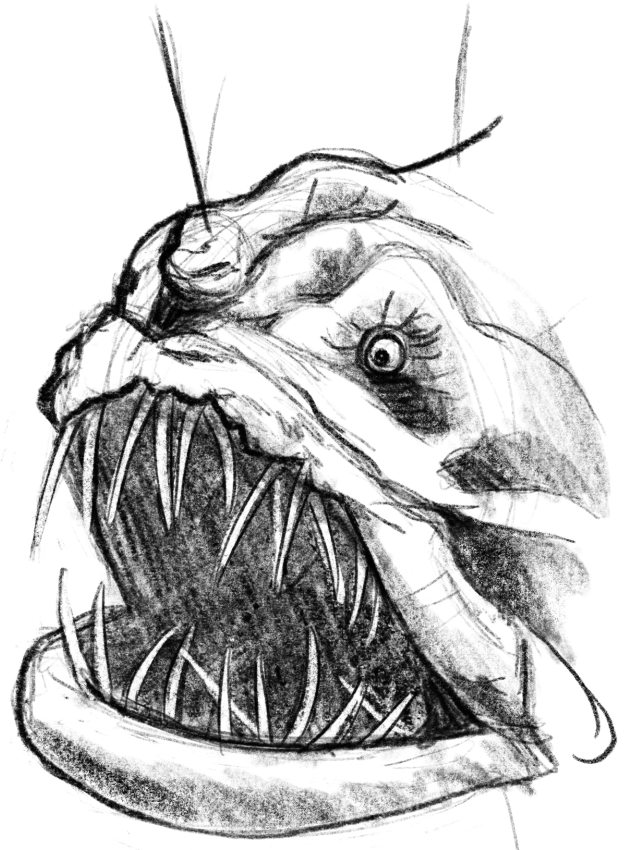
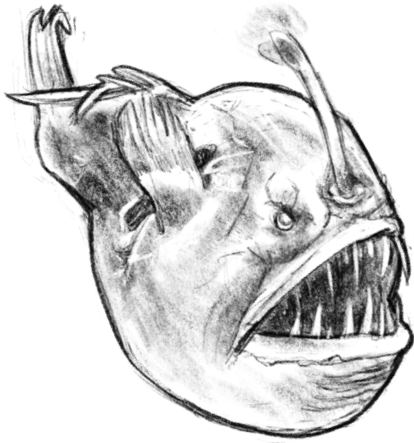
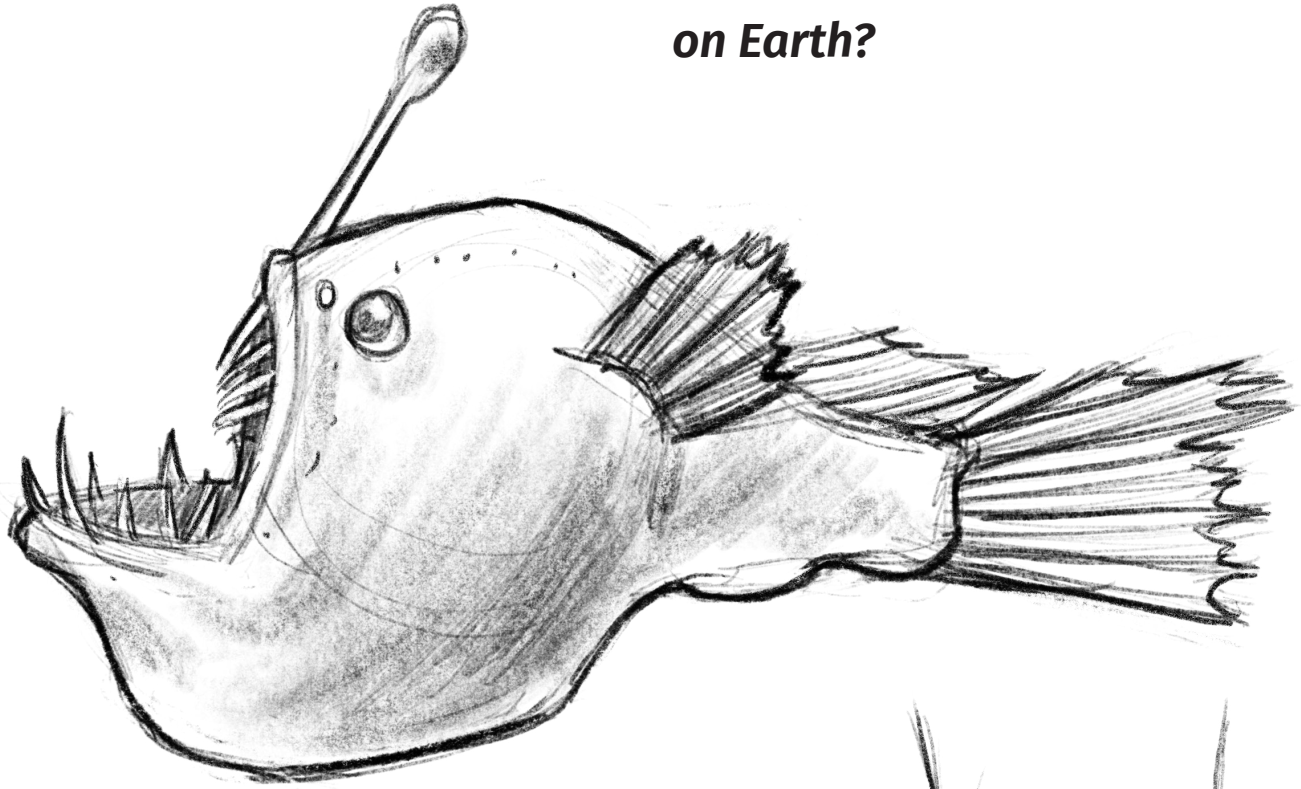
Due to being nocturnal, the Krieboros evolved with bioluminescent fins. This helps them see food while eating at night.

Fins adapted to act like “hands” to hold steady when eating food. They are also used as “legs” when walking on the ocean floor to push it’s large body forward.



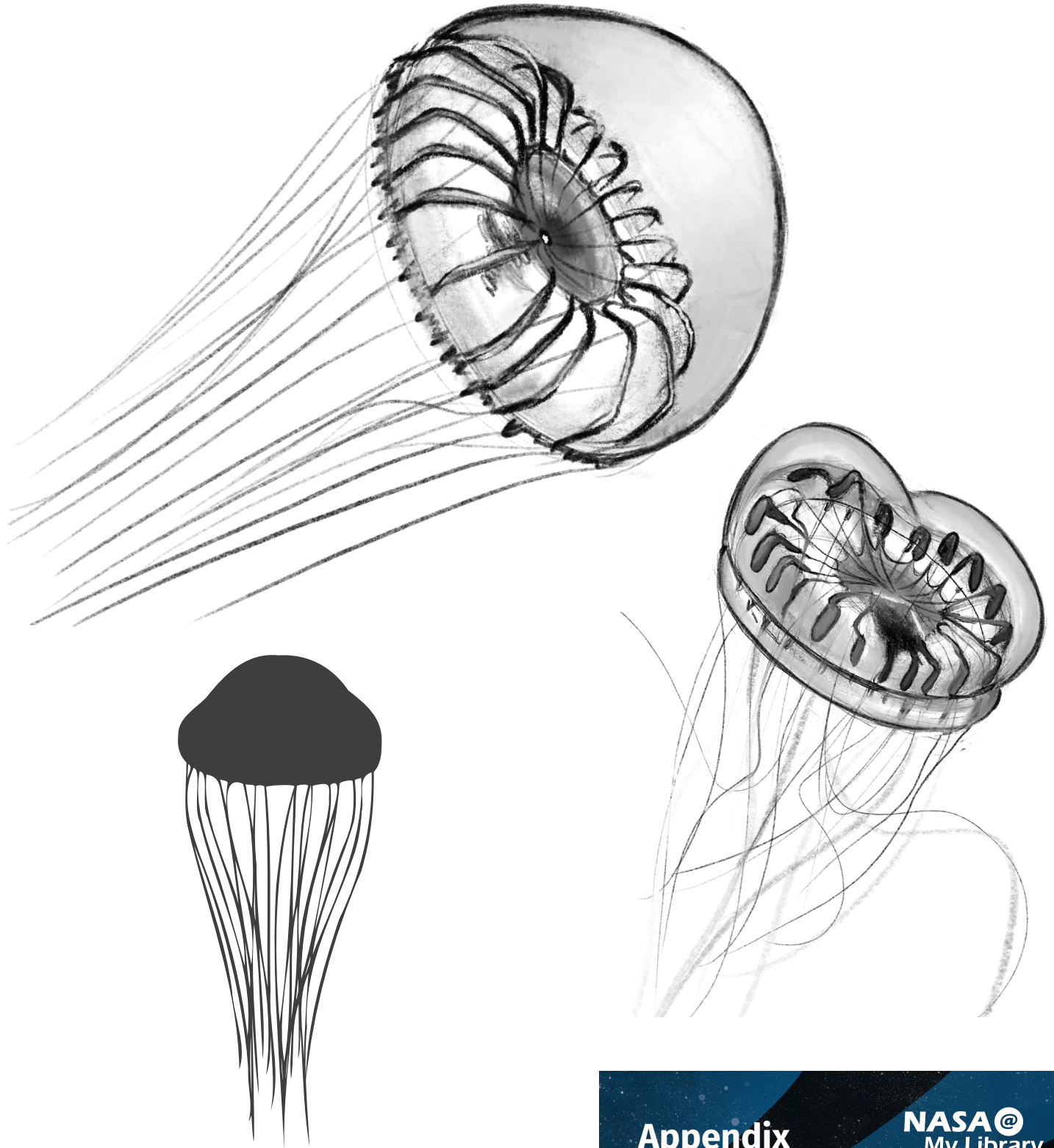
# Anglerfish

What adaptations do these animals have to help them survive in ocean environments on Earth?



# Skeletal Jellyfish

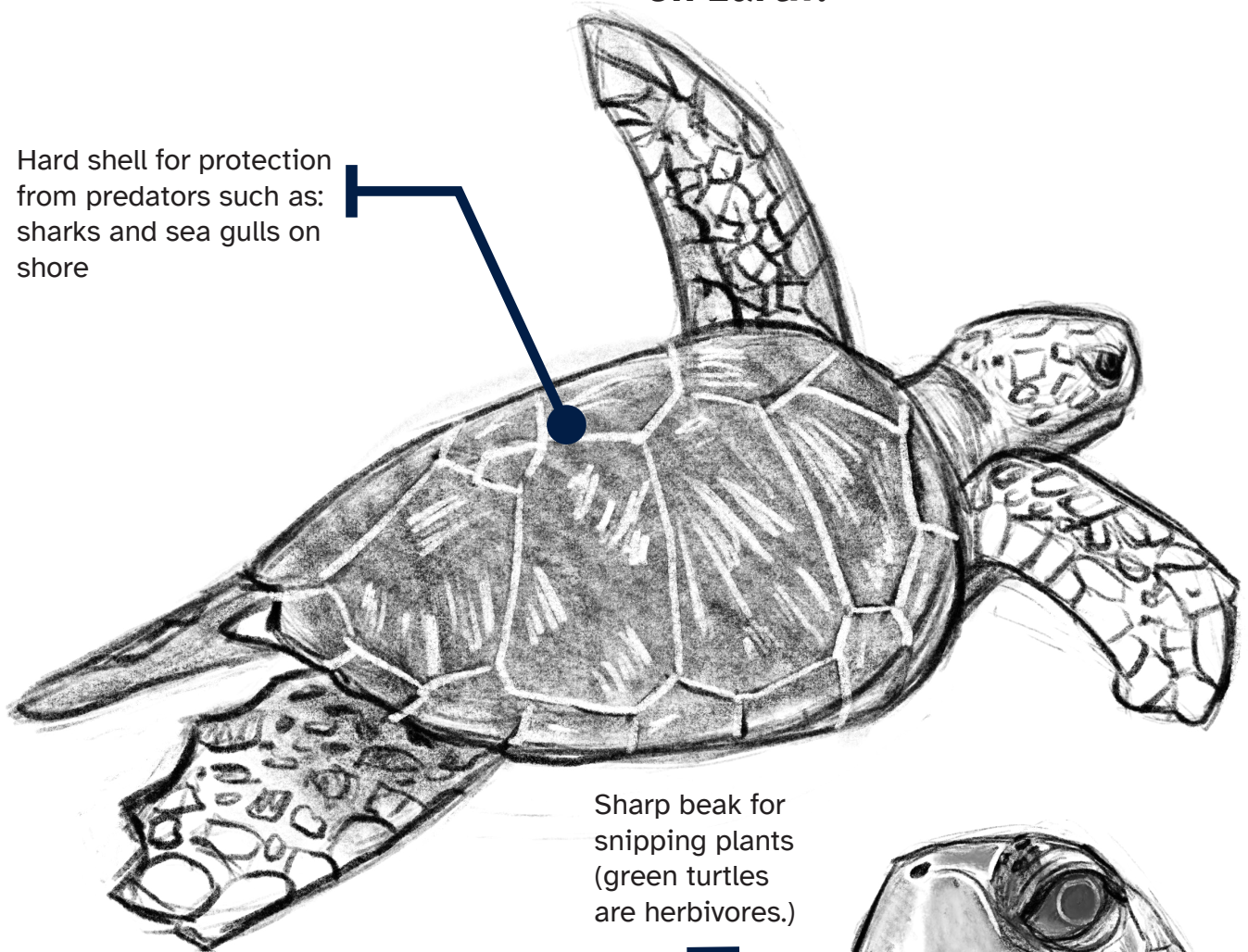
***What adaptations do these animals have to help them survive in ocean environments on Earth?***



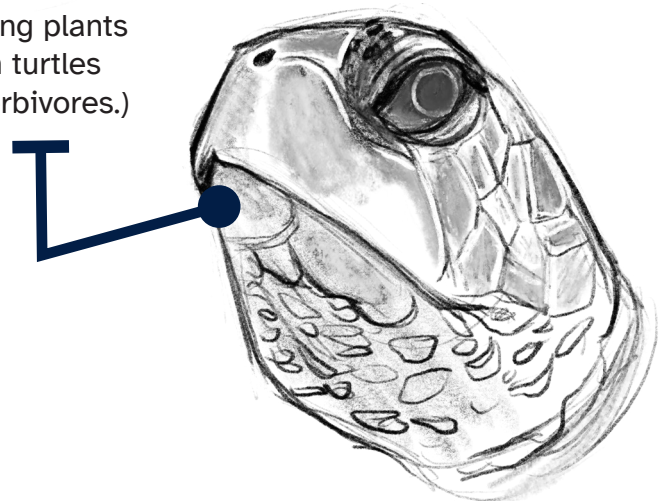
# Green Sea Turtle

**What adaptations do these animals have to help them survive in ocean environments on Earth?**

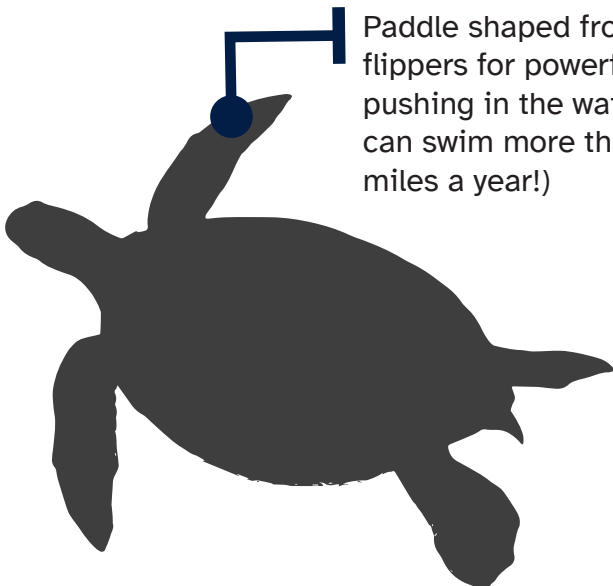
Hard shell for protection from predators such as: sharks and sea gulls on shore



Sharp beak for snipping plants (green turtles are herbivores.)

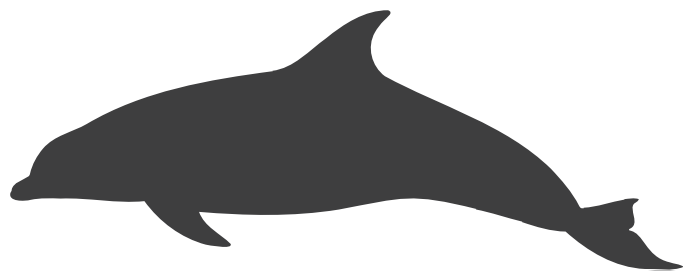
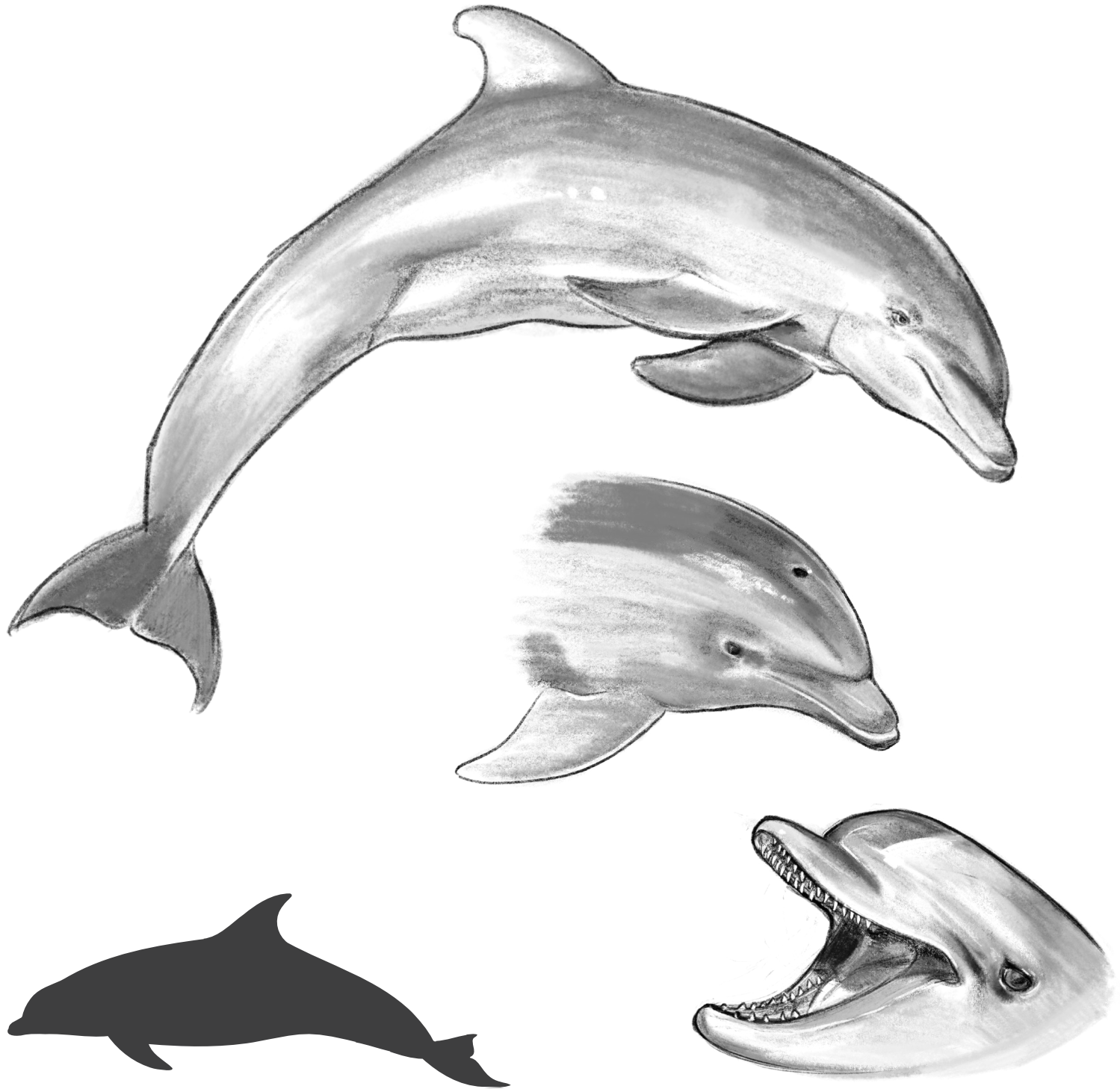


Paddle shaped from flippers for powerful pushing in the water (they can swim more than 2000 miles a year!)



# Bottlenose Dolphin

*What adaptations do these animals have to help them survive in ocean environments on Earth?*



# Coral

*What adaptations do these animals have to help them survive in ocean environments on Earth?*

