

# Florida's Fintastic Sharks and Rays

An at-home lesson for grades K-2

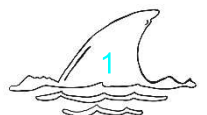
Produced by:



This educational workbook was produced through the support of the Indian River Lagoon National Estuary Program.

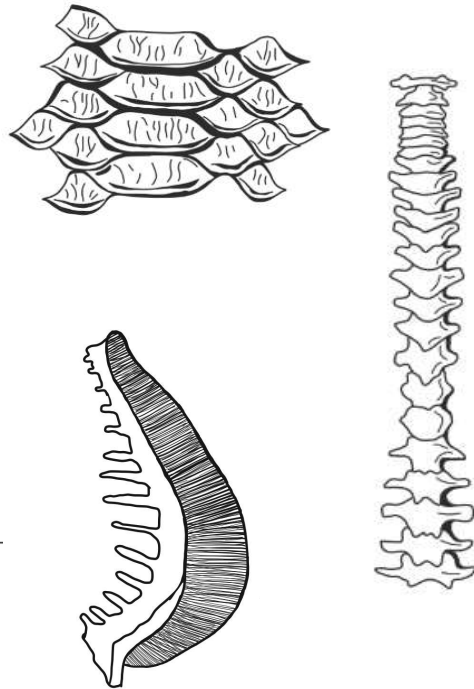
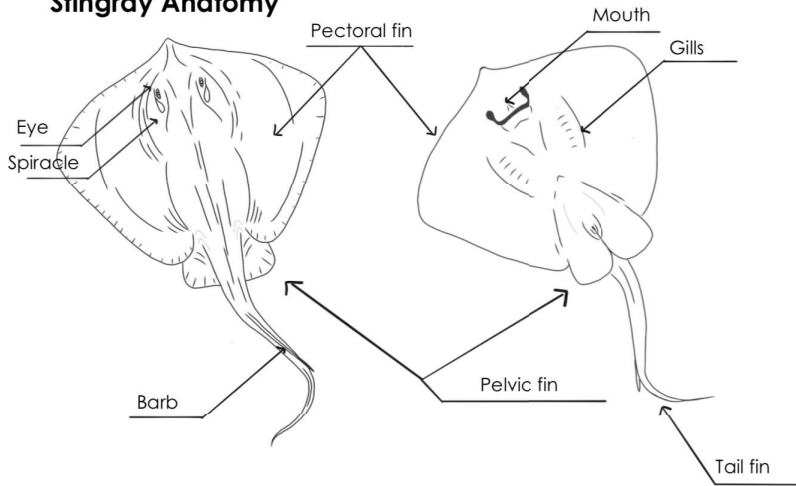


**ONE LAGOON**  
ONE COMMUNITY - ONE VOICE  
INDIAN RIVER LAGOON  
NATIONAL ESTUARY PROGRAM

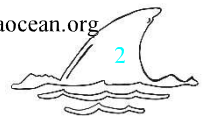
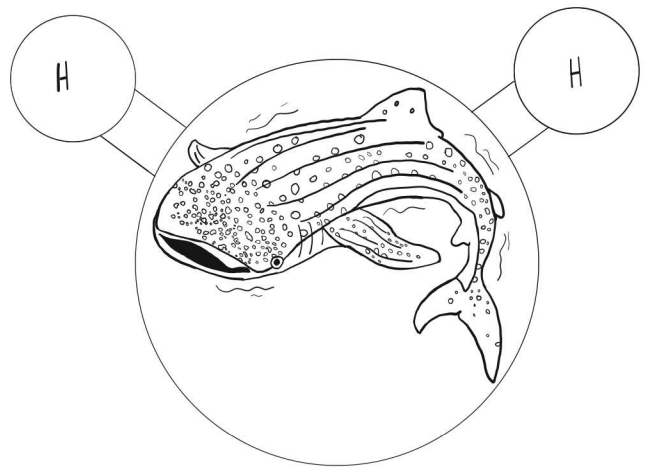
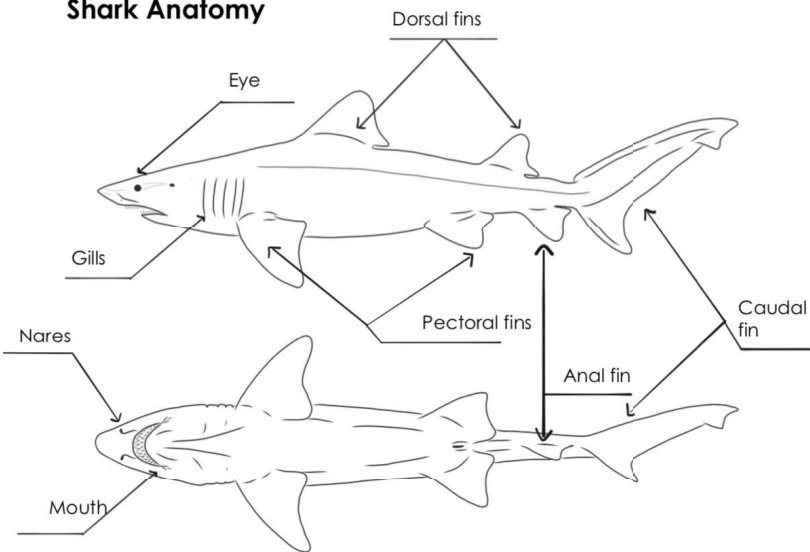


Sharks and rays are types of **fish**. They have a backbone, scales, fins, and breathe in the water using gills.

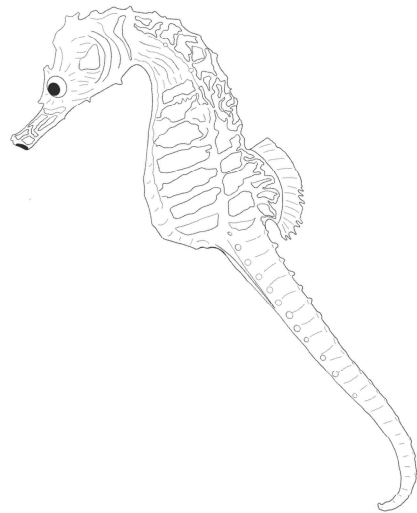
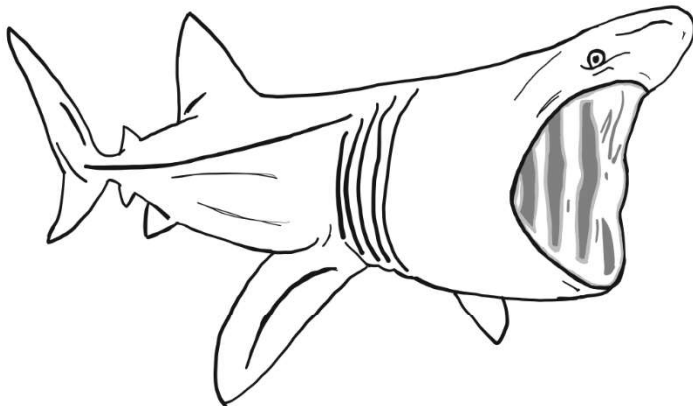
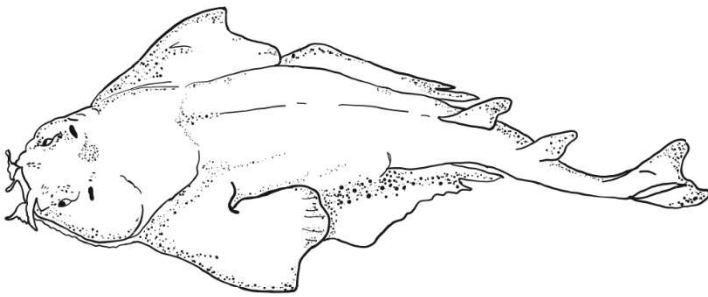
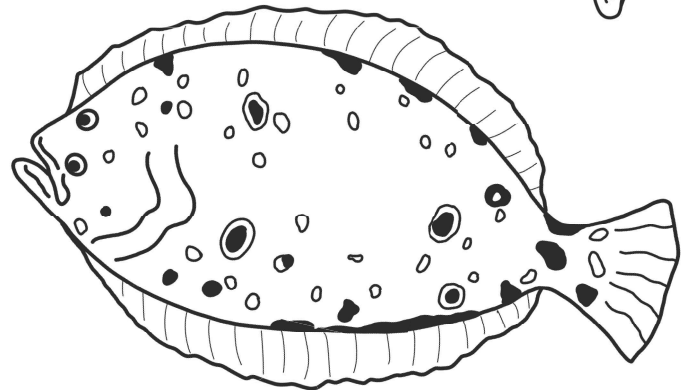
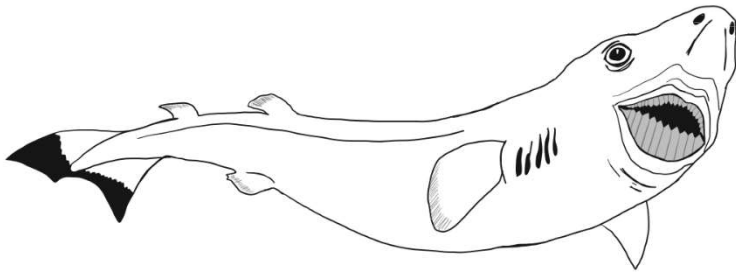
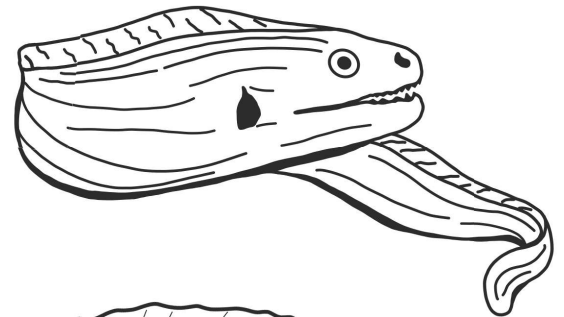
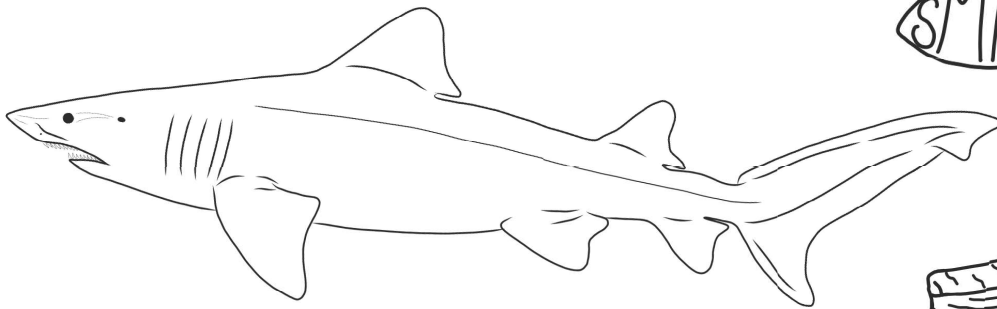
### Stingray Anatomy



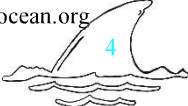
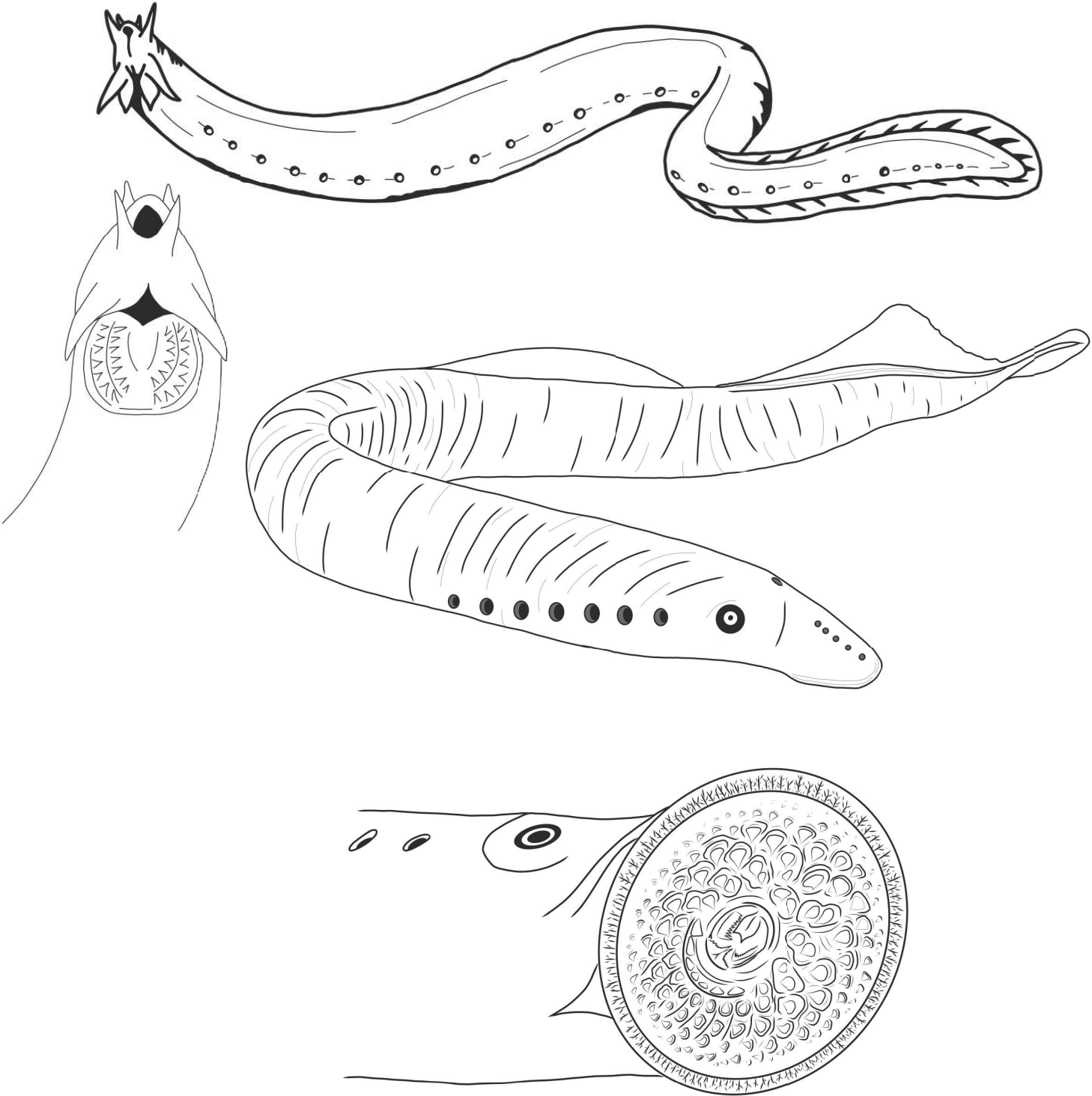
### Shark Anatomy



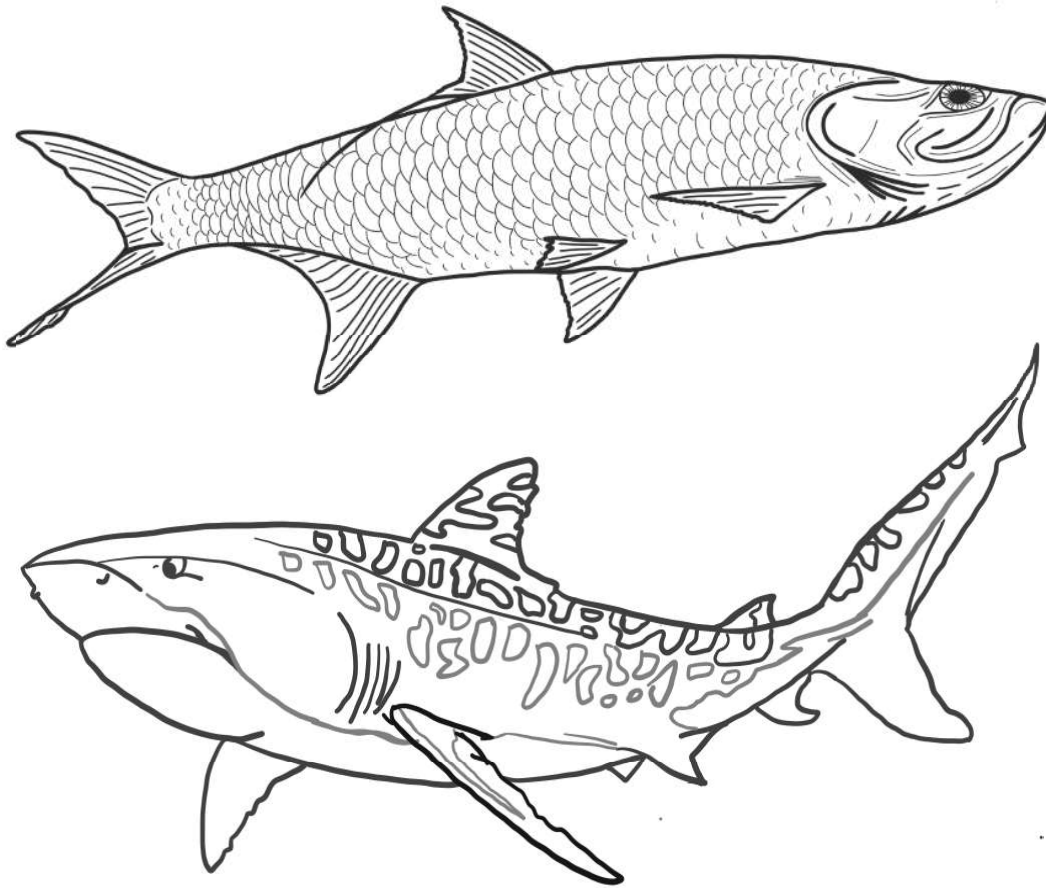
Fishes come in all different shapes and sizes.



Some fish do not have jaws, like hagfish and lampreys.



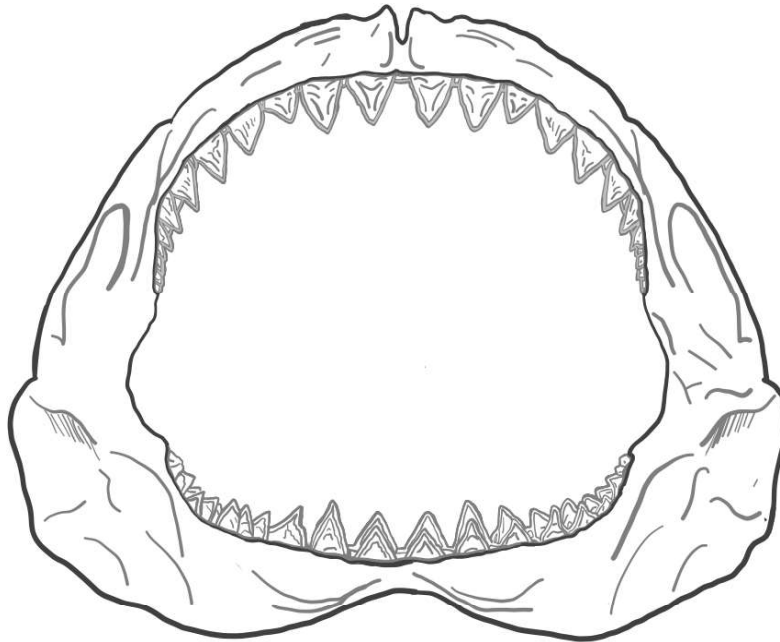
Most fish do have jaws.  
Some have bony skeletons and others  
have skeletons made of cartilage—the  
same stuff that makes our nose and  
ears flexible!



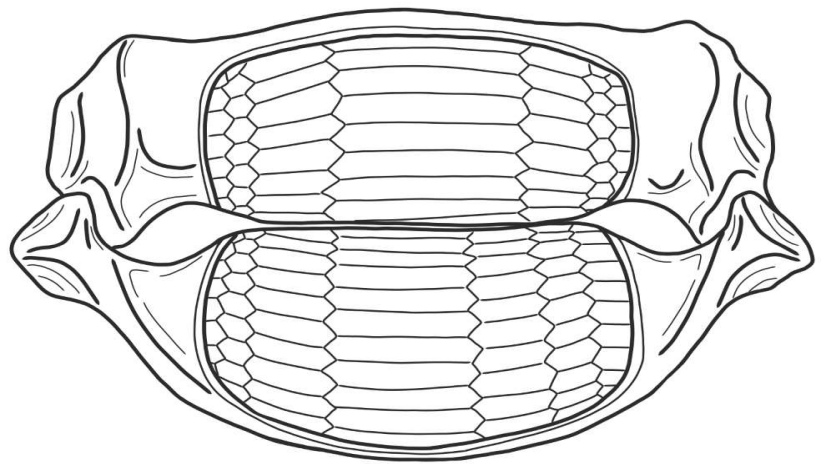
Sharks, skates, and rays are all fish with  
skeletons made of cartilage.



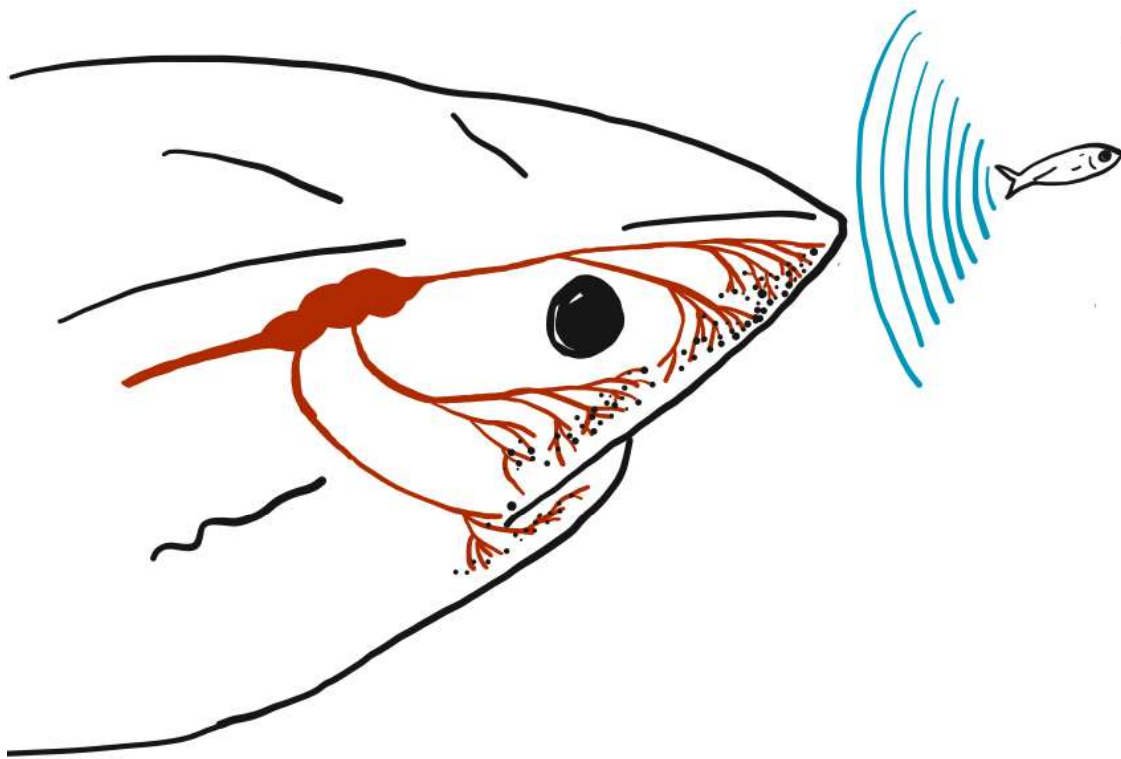
Humans have 32 teeth, but sharks and rays can have over 30,000 in their lifetime! Some species' teeth are flat. Others are sharp.



Sharp teeth are good for cutting soft food. Flat teeth are good for crunching hard food.



Sharks and rays have senses just like we do! Our five senses are smell, touch, hearing, sight, and taste. Sharks have one extra - they can feel electricity! This special sense helps them find food at night or in dirty water.



S S is for Sharks and Stingrays

Sharks

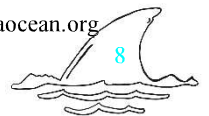
Hammerhead Shark

Nurse Shark

Stingrays

Cownose Stingray

Atlantic Stingray





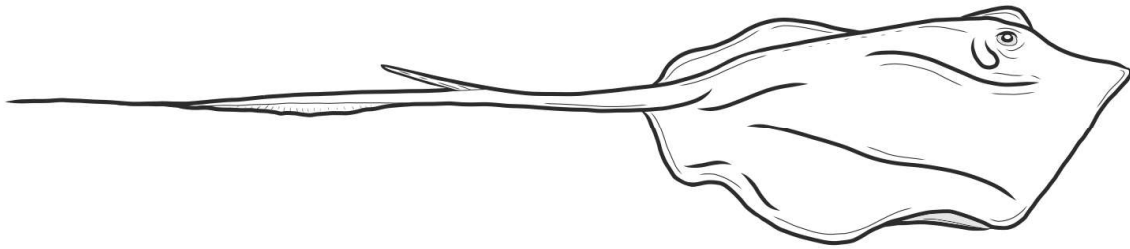
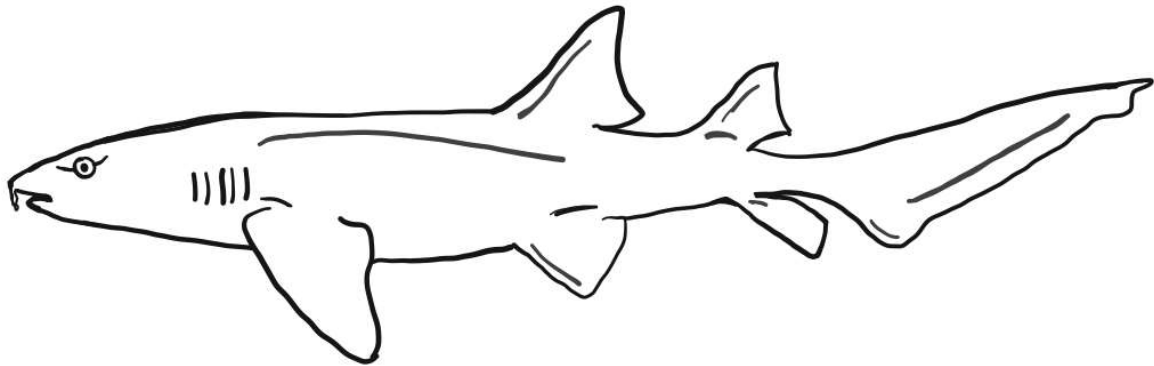
# Shark Symmetry

## Instructions:

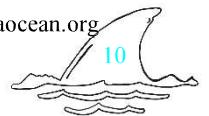
Draw the other half of the shark



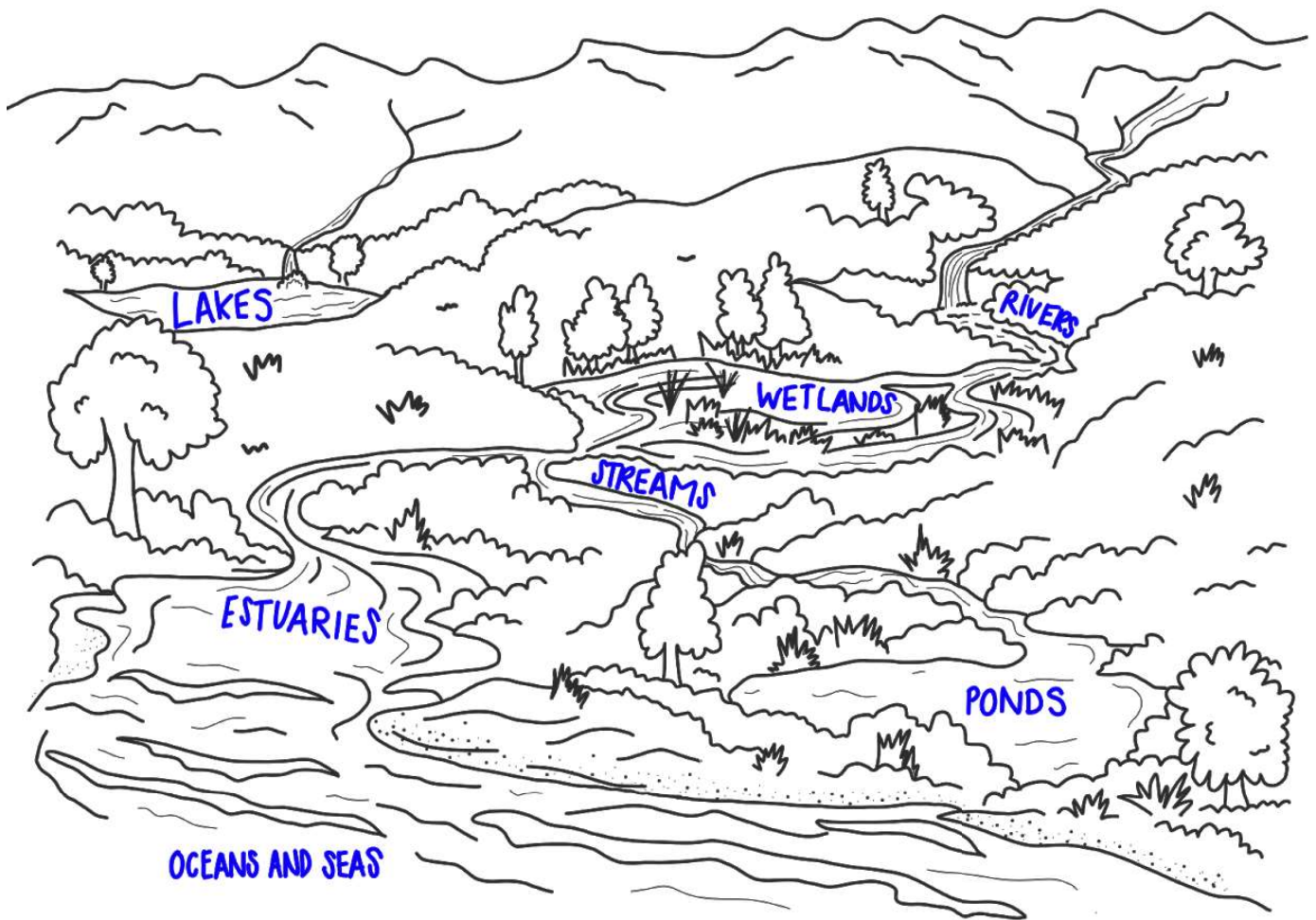
Skates and rays are cousins of sharks,  
but they have flat bodies like pancakes!



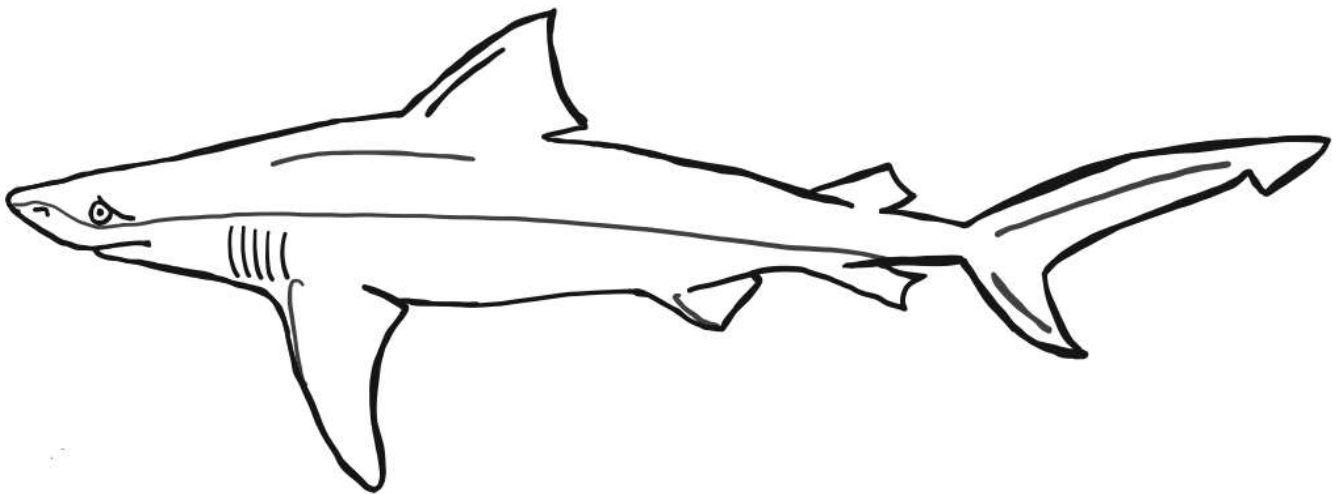
**There are over 400 species of sharks  
and more than 600 species of skates  
and rays living on Earth.**



Many different kinds of sharks and rays live in the **Indian River Lagoon Estuary**, a very special body of water that runs along Florida's east coast. Water in the Indian River Lagoon Estuary is brackish. Brackish water is part salty and part fresh.

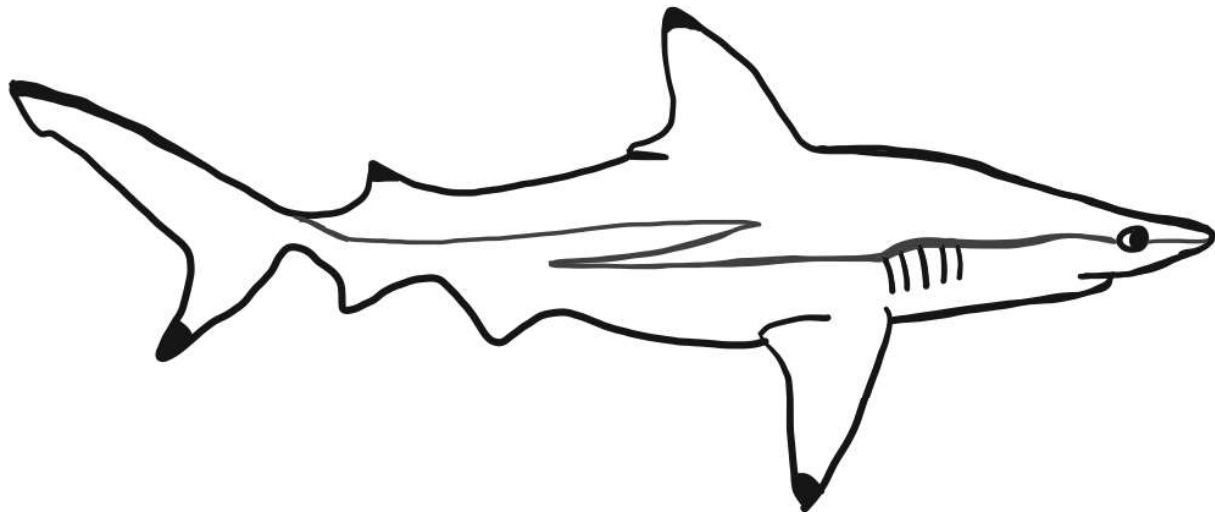


All of the shark and ray species on the next pages can be found living in or near the Indian River Lagoon Estuary.

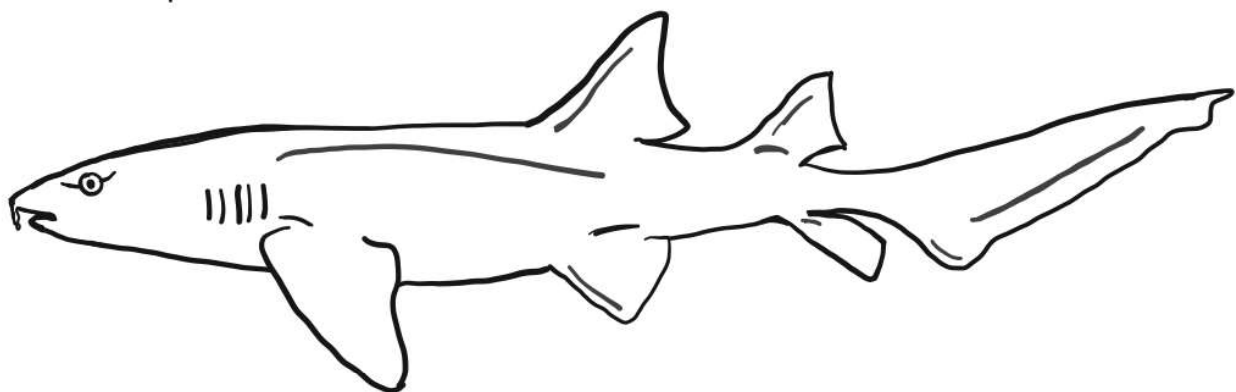


Bull sharks are common in the Indian River Lagoon. They spend a lot of time in brackish water, and can even live in fresh water!

Blacktip sharks can jump high out of the water!

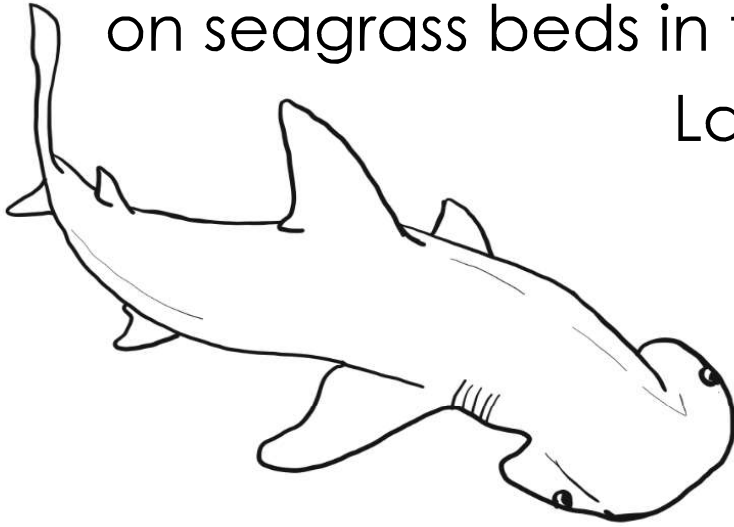


Nurse sharks spend a lot of time hanging around on the bottom. They have barbels, or whiskers, on their face, almost like a catfish.

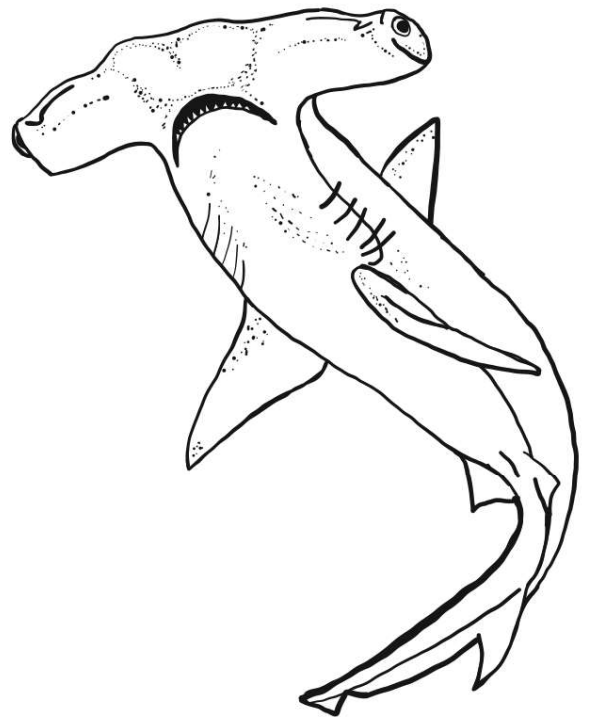


Bonnethead sharks are tiny members of the hammerhead shark family.

They catch and eat crabs and shrimp on seagrass beds in the Indian River Lagoon.



The great hammerhead shark gets its name from its hammer-shaped head.



Lemon sharks swim across seagrass beds and along the edges of mangrove forests in the Indian River Lagoon. They get their name from the color of their skin.



# Stingray Symmetry

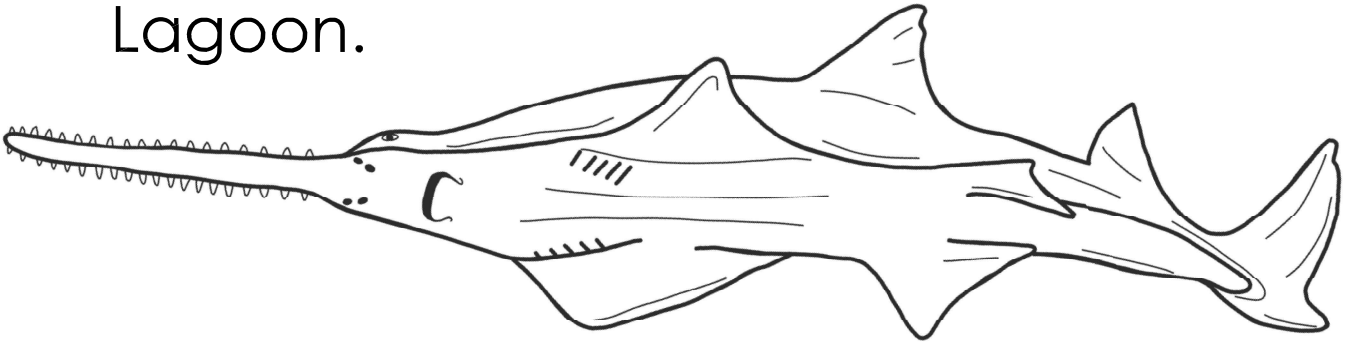
## Instructions:

Draw the other half of the stingray.

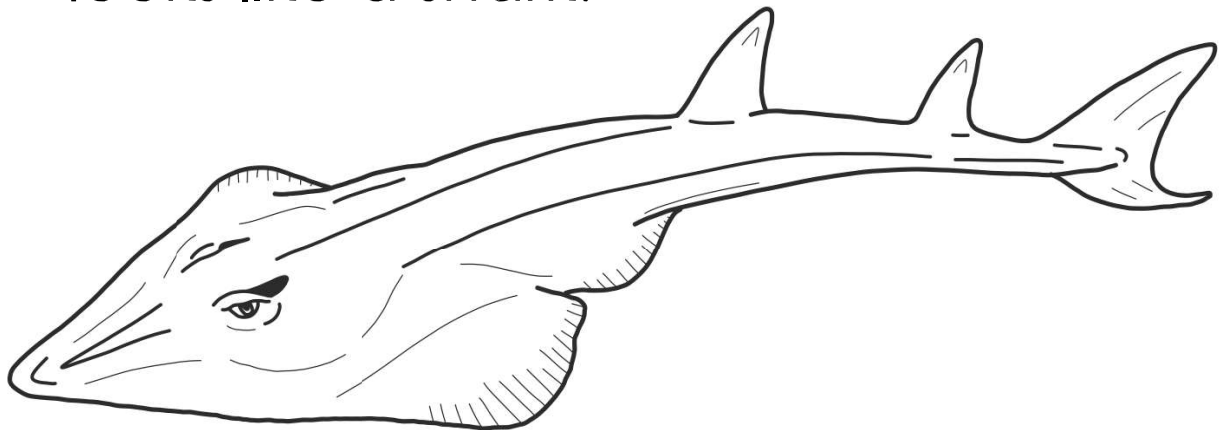




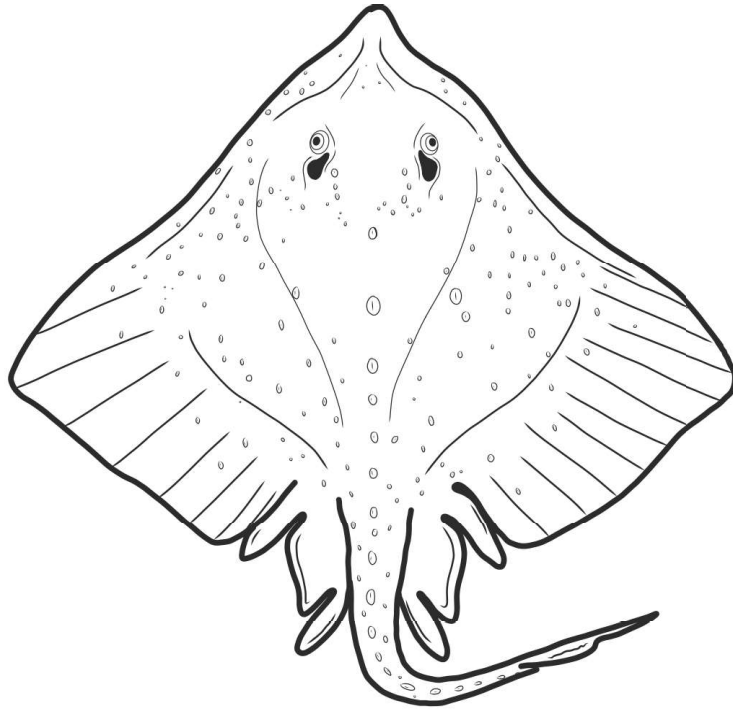
The smalltooth sawfish may look like a shark, but it's actually a type of ray. How do you think it got its name? This is one of the rarest fish in Indian River Lagoon.



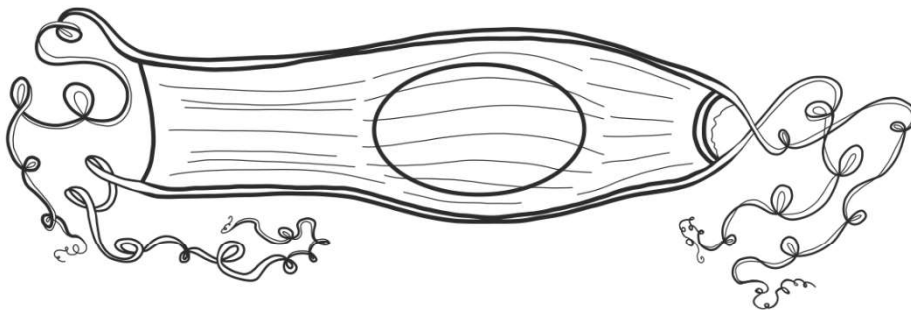
The Atlantic guitarfish is another ray that looks like a shark.



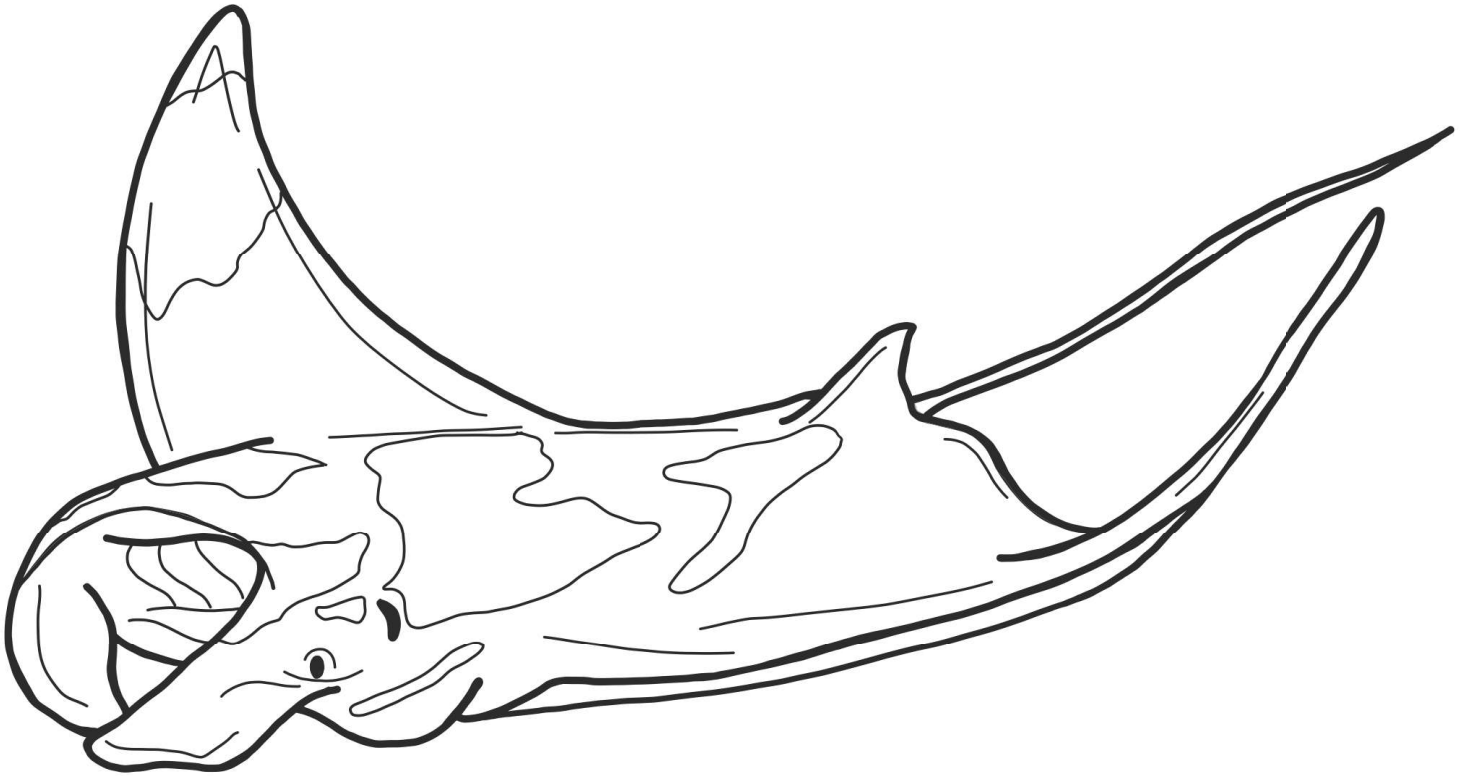
Can you tell how it got its name?



Clearnose skates have clear flaps on either side of their nose. At the beach, you might find their egg cases, called "mermaid's purses," washed up on the sand.

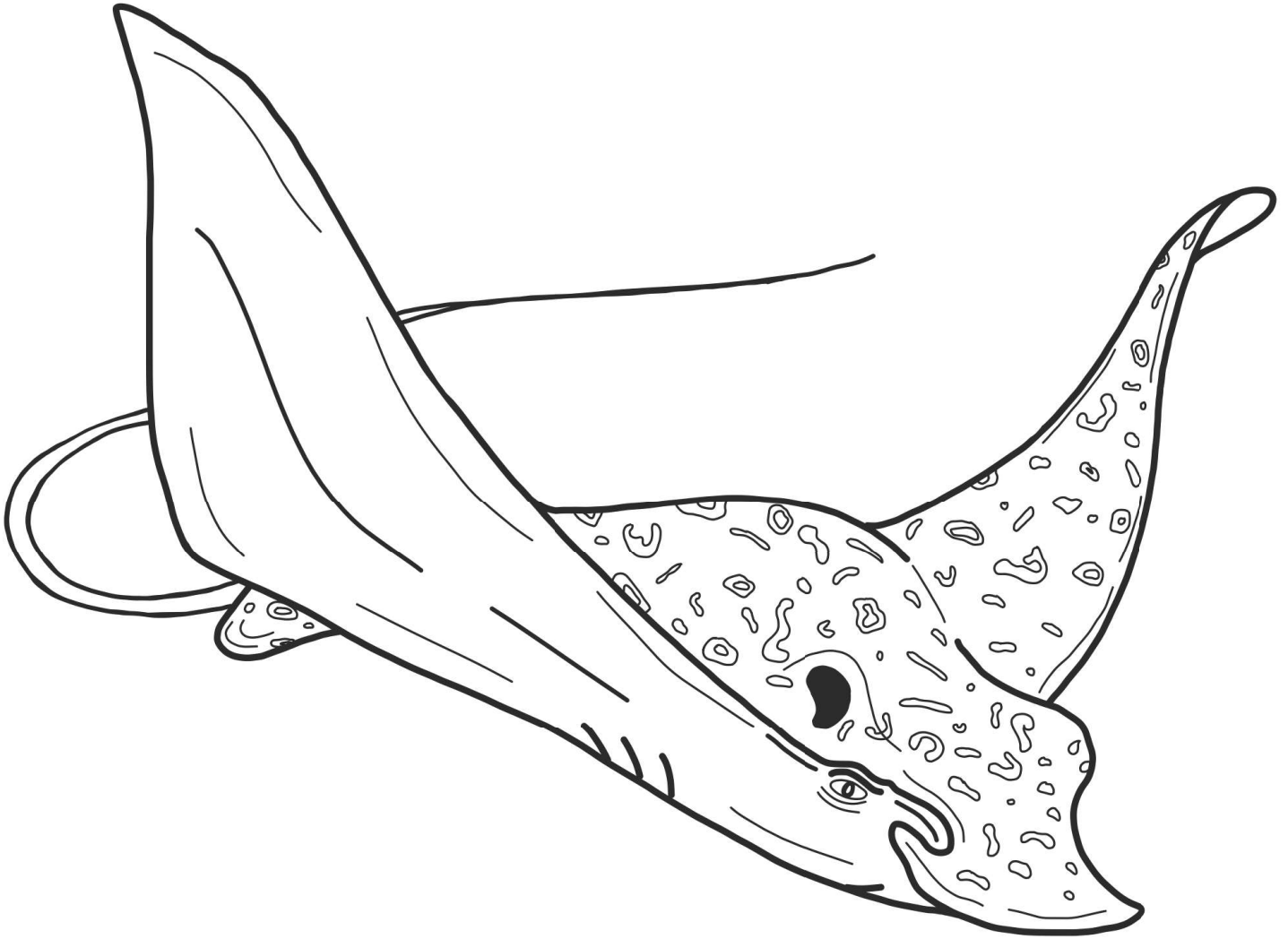


The largest of all rays is the manta ray.



Manta rays grow to over 25 feet wide!  
They are found near inlets where the  
Indian River Lagoon connects to the  
ocean.

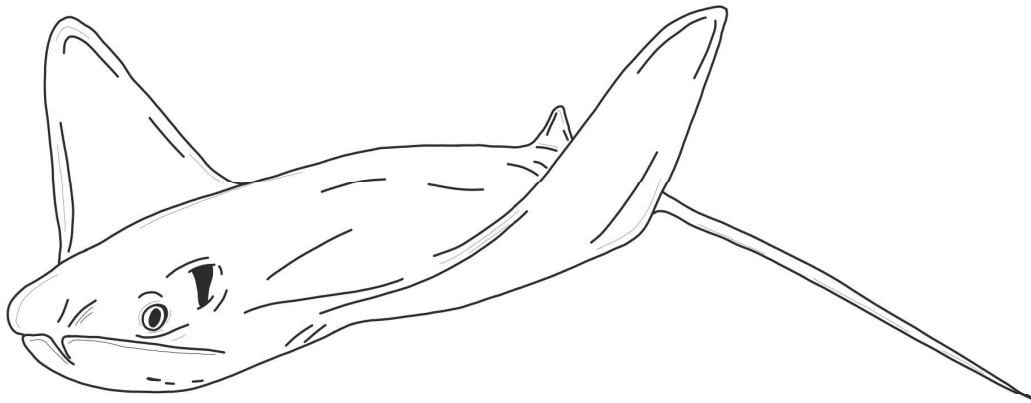
Spotted eagle rays have white spots all over the top of their grey bodies.



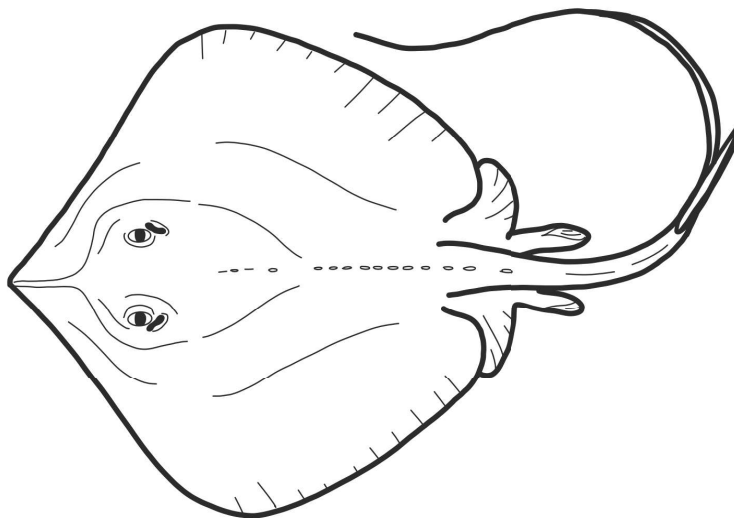
They use their nose like a shovel to look for food on the ocean bottom.



Cownose rays travel through the Indian River Lagoon in large groups called fevers.



Atlantic stingrays are the most common ray in the Indian River Lagoon. They don't get much bigger than a pizza.



The tail of a southern stingray can be up to two times the length of its body! This is the largest bottom-dwelling ray in the Indian River Lagoon.



# Shark and Ray Word search

E R E T A W H S E R F M  
S Z P S B R M T J A I I  
H S I M X Y O F H G V W  
A P S C A L E S S B I S  
R I M U Y K S L L I G M  
K R S A L T W A T E R Q  
G A M M B Z D Q F N U Q  
S C O B U D C Q I E M G  
I L E Y E G E Y S F K L  
V E T R E D X W H E J F  
I S S T I N G R A Y T T  
I F J N B L F I N S U O

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SHARK

GILLS

FRESHWATER

SWIM

STINGRAY

SCALES

SALTWATER

BLADDER

FINS

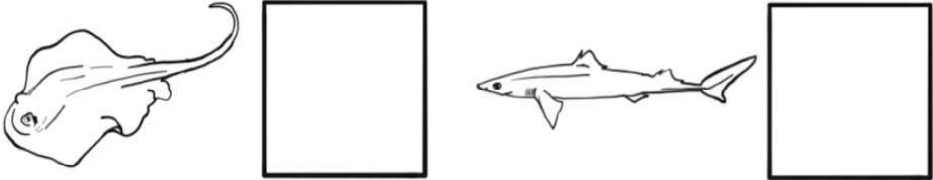
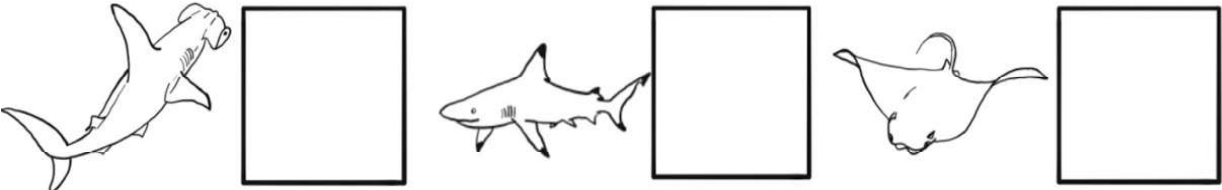
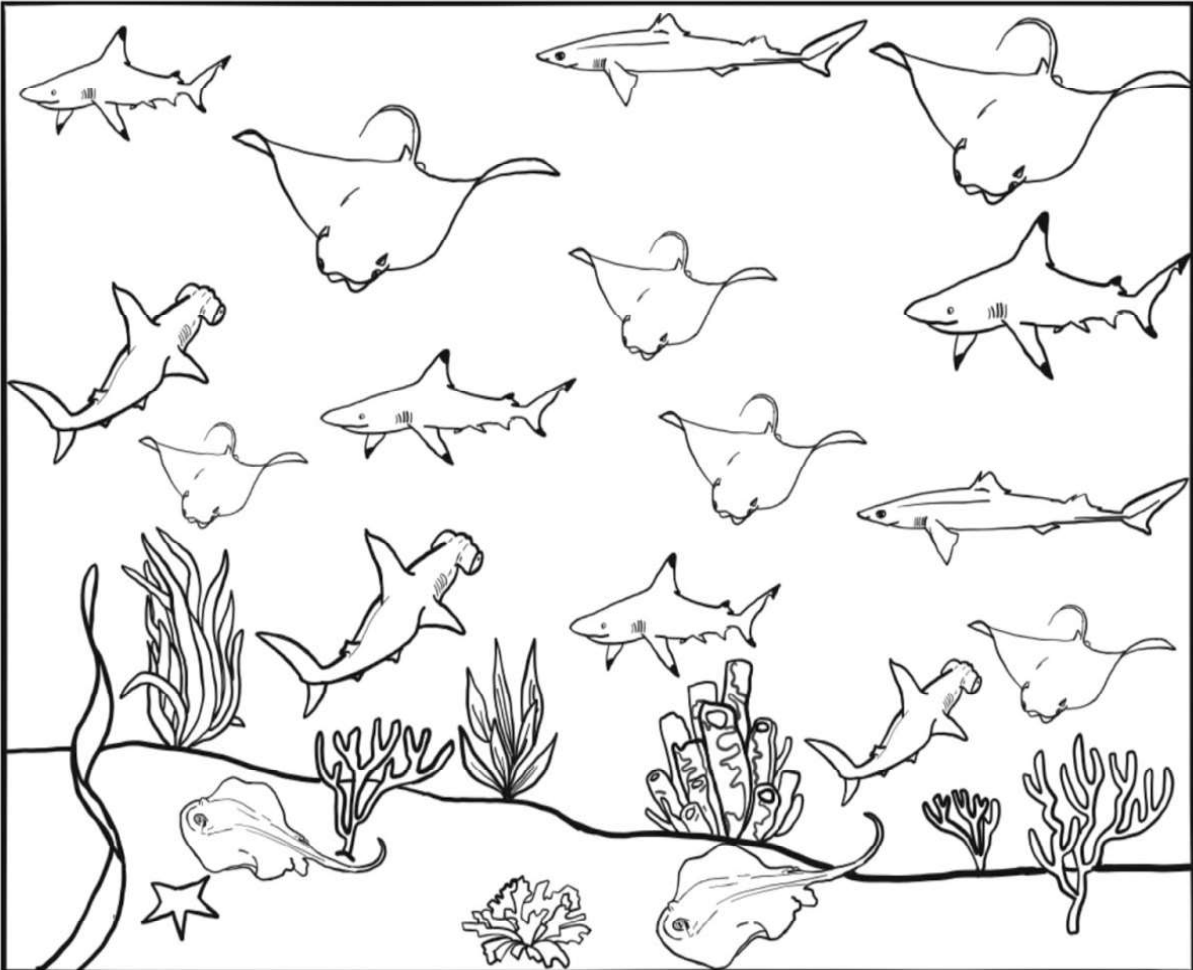
FISH

SPIRACLES

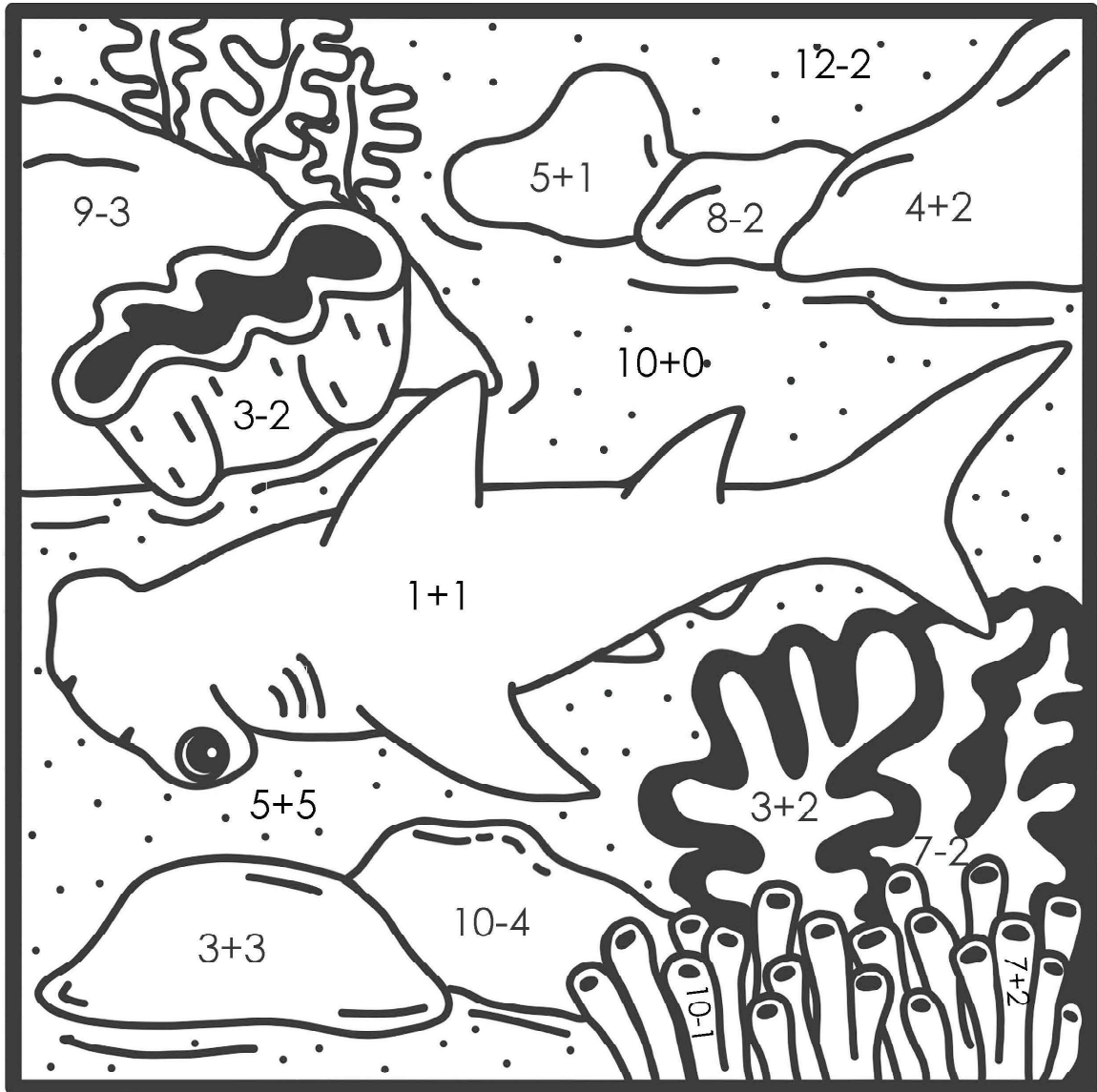


# Swimming in the Deep Blue Sea

Color the animals below and count how many of each species there are. You can write your answers in the boxes below.







Solve the math problems in the picture. Use the rules below to color:

If the answer is six (6), color it brown.

If the answer is nine (9), color it purple.

If the answer is five (5), color it red.

If the answer is two (2), color it grey.

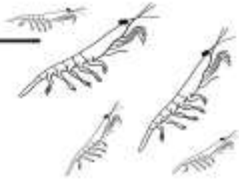
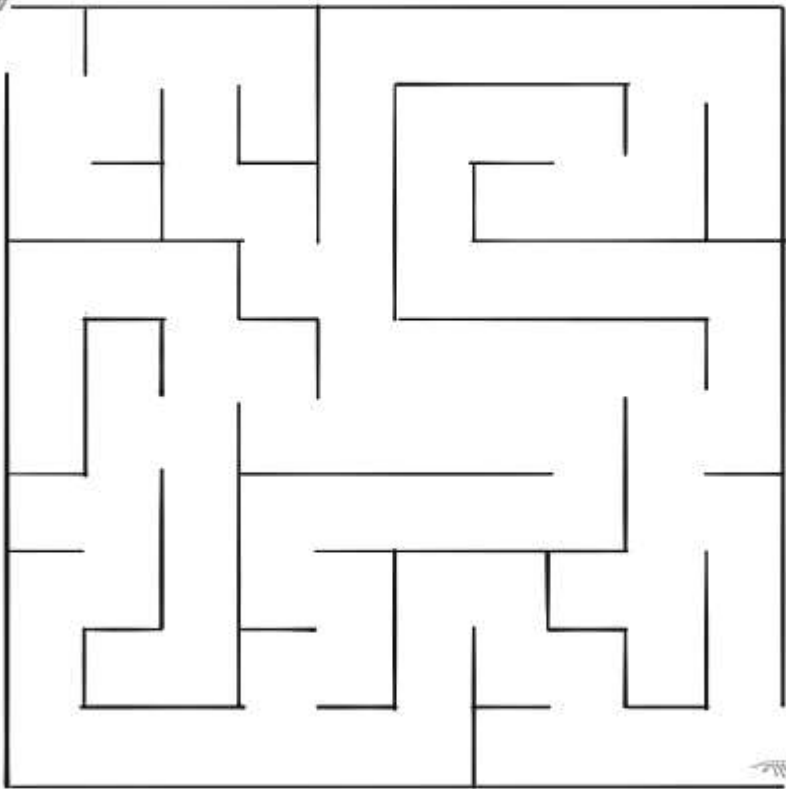
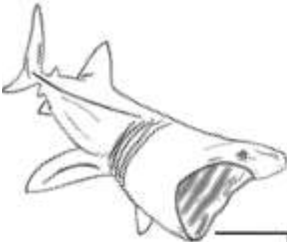
If the answer is ten (10), color it tan.

If the answer is one (1), color it orange.



# Shark Maze

Help the basking shark swim to its favorite food—krill!



# MATCHING NUMBERS

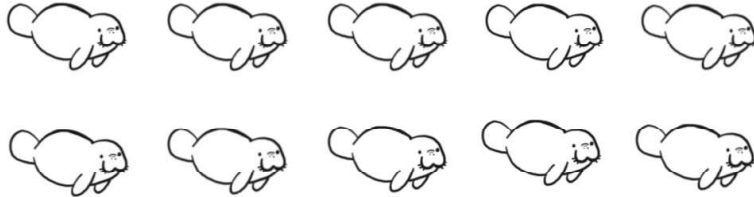
## Instructions:

First fill out the dotted line numbers, then draw a line to match the number to the amount of each animal below.

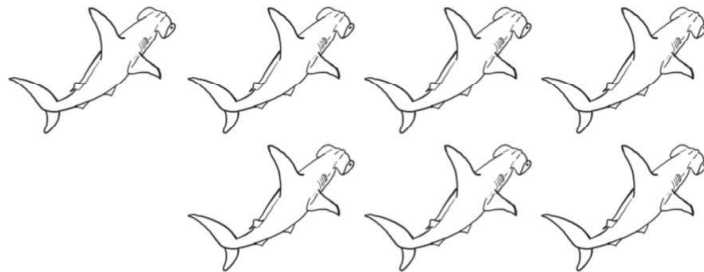
4



2



3



10



7

