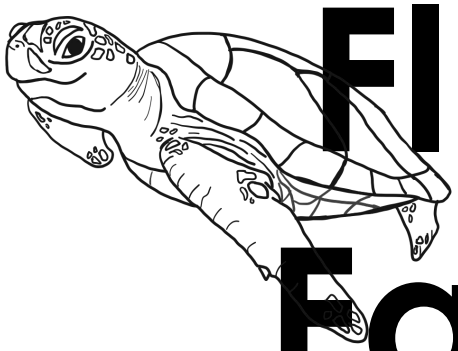
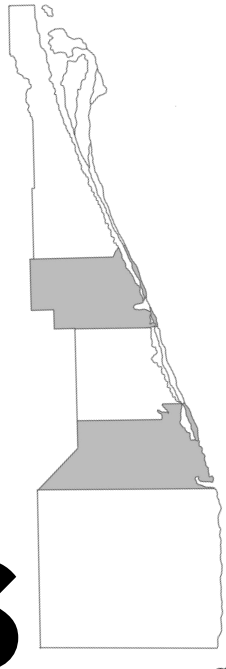
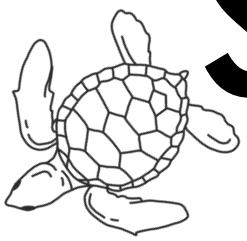
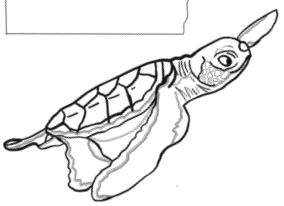


Florida's Fantastic Sea Turtles







An at-home lesson for grades 3-5

Produced by: Florida Oceanographic Society

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

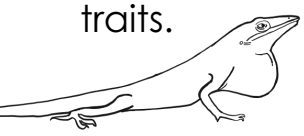
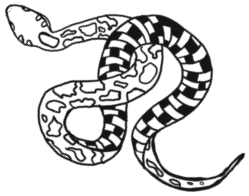
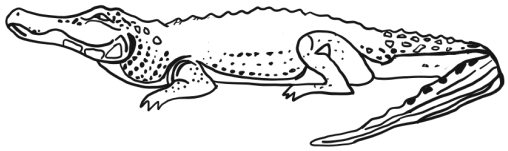
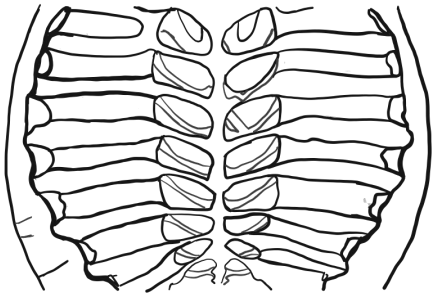
ONE LAGOON
ONE COMMUNITY · ONE VOICE
INDIAN RIVER LAGOON
NATIONAL ESTUARY PROGRAM

Sea turtles are an incredible group of animals! These gentle creatures are highly adapted for a life in the ocean. In fact, they can be found in warm tropical and subtropical seas all around the globe. Young sea turtles live in shallow areas, like coral reefs and seagrass beds, but adults are equally at home in the deep blue. Sea turtles may look a lot like any other turtle, but they have some pretty fancy tricks up their sleeve. They can swim faster than you can run, they can dive more than a mile under the ocean's surface, they can drink saltwater, they can navigate without a map or compass, and they can hold their breath for more than an hour! Can you imagine having those kinds of powers without being a superhero? Believe it or not, the earliest ancestors of today's sea turtles appeared on earth more than 100 million years ago. That means that sea turtles have been on earth since the time of the dinosaurs!

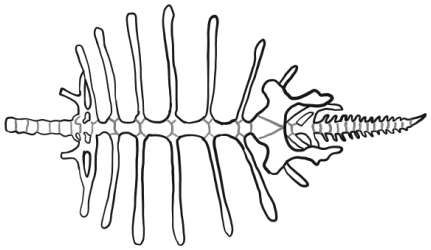
Florida Oceanographic Society is located on the east coast of Florida, a very special place for sea turtles. The beaches in this part of Florida are some of the most important sea turtle nesting areas on earth! Plus, seagrass beds in the Indian River Lagoon **Estuary**[1] and coral reefs off our beaches provide a perfect **nursery**[2] for young sea turtles.

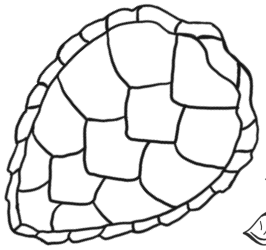
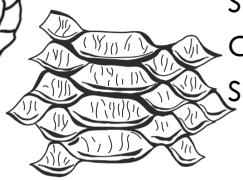
What is a Sea Turtle?

All plants and animals on earth can be sorted or classified into different groups. Sea turtles, just like dinosaurs, belong to a group of animals called **reptiles**. You're probably pretty familiar with other types of reptiles, like snakes, lizards, and alligators. But what makes an animal a reptile? While there are more than 10,000 different species (or types) of reptiles on earth, all reptiles share the following five traits.

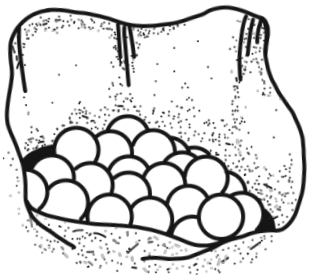





A **backbone** - All reptiles are **vertebrates**[3]. A vertebrate is an animal with a backbone (you and I are vertebrates). Sea turtles have a special backbone that is part of their shell.

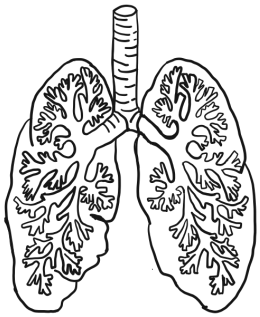



Scales - The skin of a reptile is covered with protective scales. A sea turtle's head, tail, and flippers are covered with scales. So is their shell! The extra hard scales on a sea turtle's shell are called scutes.

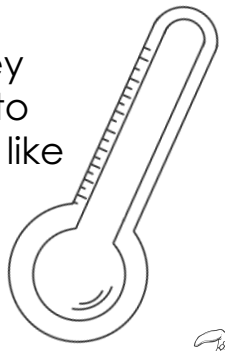


Eggs - Nearly all reptiles reproduce by laying eggs. Sea turtles lay eggs into nests that they dig deep into the sand at the beach.



Breathing Air - All reptiles, even ones that live in the water, breathe air with lungs, just like you and I do. Can you believe that a sea turtle is able to hold its breath for more than an hour while it is resting?

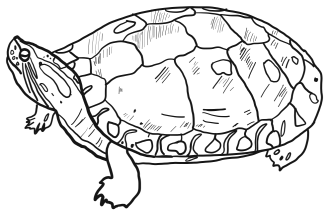
Cold Blooded[4]- Do reptiles have cold blood? Not exactly, but they are considered cold blooded. This means that they are not able to produce heat from the inside like we can. Cold-blooded animals like sea turtles have to move to warmer or cooler spots to adjust their body temperature. Many reptiles use the sun to warm up. This is called basking.



Different types of turtles

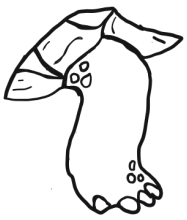
There are lots of different kinds of turtles on our planet. In fact, more than 300 different turtle species live on earth today, and many more species have gone **extinct**[5] in the past. Turtles can be classified into three primary groups: freshwater turtles, tortoises, and sea turtles. While this lesson is focused on sea turtles, it is important to remember that most turtles are NOT sea turtles.

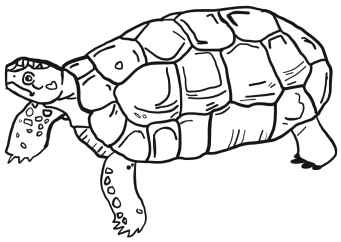
Although sea turtles are a reptile and related to tortoises and freshwater turtles, there are many differences between the three groups of turtles. Tortoises and freshwater turtles are more similar to each other than they are to sea turtles.



Freshwater Turtles

As their name suggests, freshwater turtles live in areas with fresh water. A **habitat**[6] is a place out in nature where an animal lives. Freshwater turtles' favorite habitats include lakes, ponds, rivers, streams, and swamps. Freshwater turtles are **aquatic**[7], which means they are built for a life in the water, but they can comfortably come out onto land for extended periods of time. They have webbed toes to help with swimming, and claws to give them traction when they are out of the water. The shell of a freshwater turtle is usually smooth and slightly flattened. A smooth shell lets freshwater turtles swim through the water easily. Their shells can't be too flat, since they need room to pull their head and legs inside when they feel threatened. There are over 250 species of freshwater turtle living on Earth.



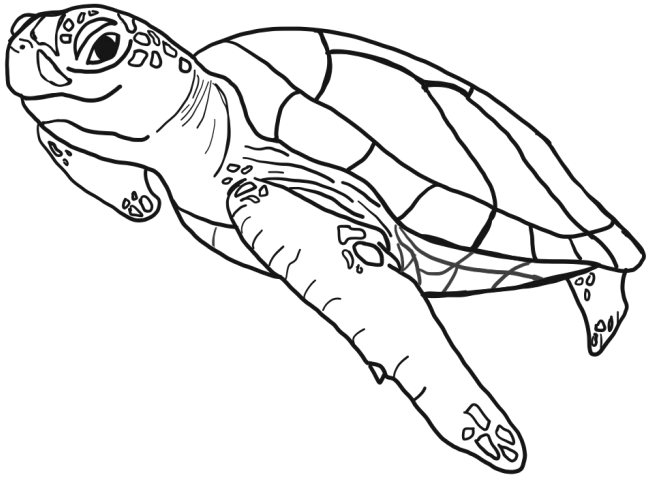


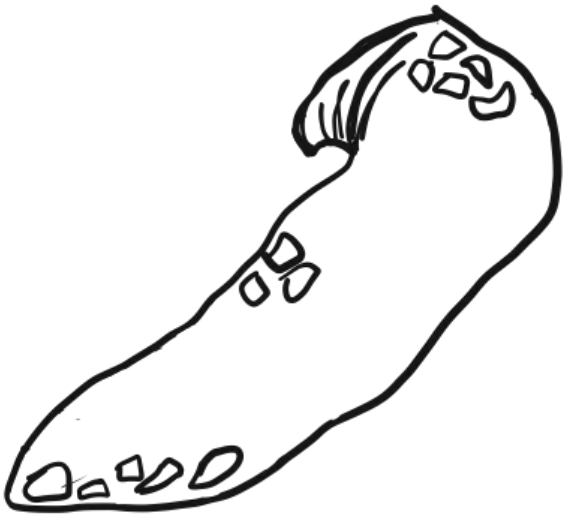
Tortoises

The word tortoise is just another name for the group of turtles that spend their whole life living on land. Tortoises can be found in many different habitats, including deserts, grasslands, rain forests, even sand dunes at the beach! Tortoises are **terrestrial**[8], meaning they are specially built for life on dry ground. They have strong legs and big claws, which are great for digging and walking. They also have tall, dome-shaped shells. Like freshwater turtles, most tortoises can pull their head and legs into their shell. More than 45 species of tortoise live on our planet.

Sea Turtles

Sea turtles are a group of entirely aquatic turtles, which spend their whole life swimming around the world's oceans. They are the ultimate aquatic turtles! Everything about them is built for a life out at sea. All sea turtles have huge flippers and very flat, smooth, **streamlined**[9] shells—prefect for swimming long distances. Because their shells are flat and relatively small, and their flippers are so large, sea turtles are not able to pull back into their shell for protection. Instead, they use their incredible swimming speed to get away from predators. Sea turtles use different ocean habitats during their lives. Tiny hatchling sea turtles live in floating mats of Sargassum seaweed out in the open ocean. Juvenile and subadult sea turtles use coral reefs and seagrass beds as nursery habitats. Adult sea turtles can travel thousands of miles between foraging areas (places with lots of food) and nesting beaches. As you'll learn, sea turtles have some unique adaptations that allow them to survive where other turtles cannot. Even though Earth's oceans are vast, there are only 7 species of sea turtle living on our planet. These 7 species have many similarities, but as you will see, they are each unique and different.

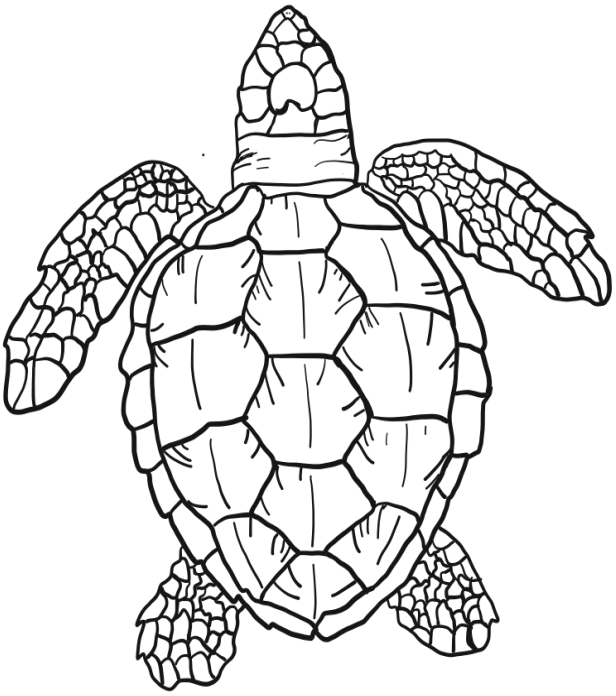


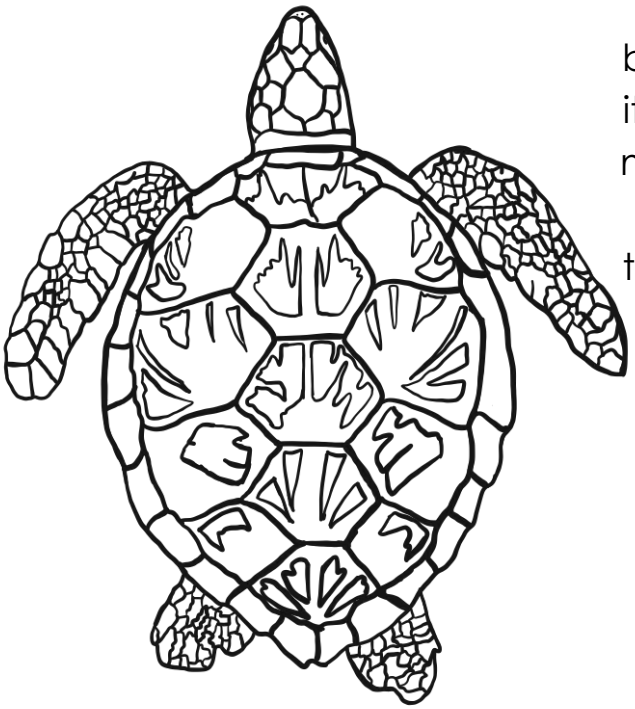


Sea Turtles of the World

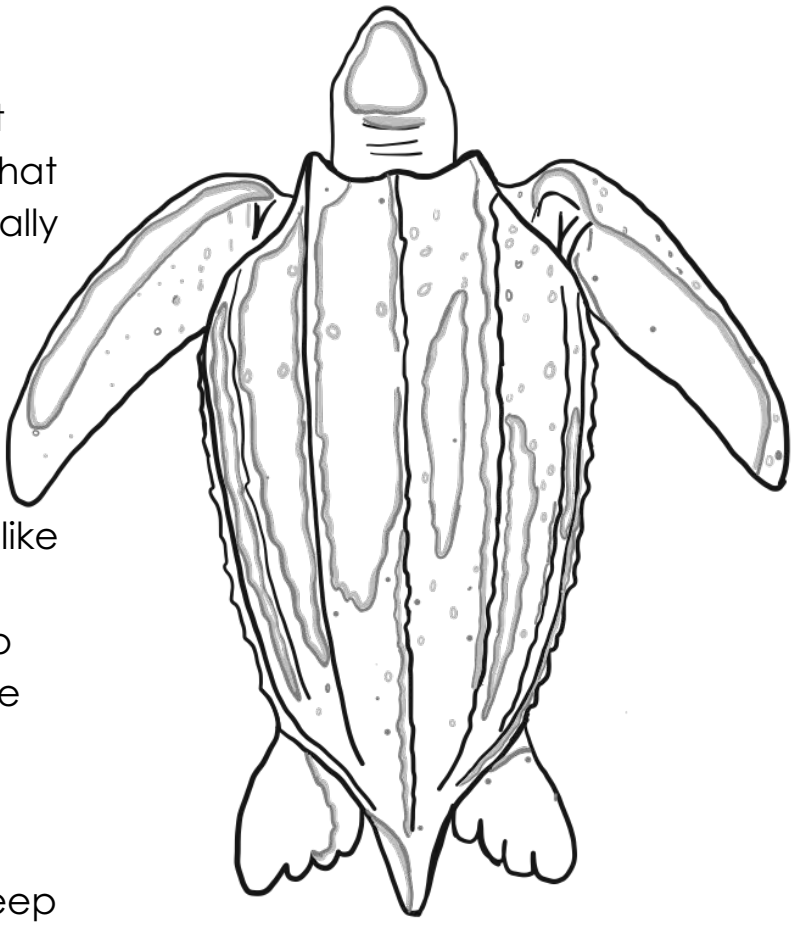
Florida is a really great place if you love sea turtles! Of the world's 7 sea turtle species, 5 live off of Florida's shorelines, and 3 nest right here on our local beaches. These 7 species have many similarities, but as you see, they are each unique and different. All sea turtle species have one important thing in common—they are either **endangered**[10] (at risk of going extinct) or **threatened**[11] (at risk of becoming endangered).

The most common sea turtle in Florida is the **loggerhead sea turtle**. Adult loggerhead sea turtles can reach more than 3 feet in length, weighing 250-300 pounds. That sounds huge, but they are actually the smallest of the three species that nest in Florida. Named after their large, log-shaped head, loggerheads have very strong jaws perfect for crunching their favorite foods, including **crustaceans**[12] (like lobsters and crabs) and **mollusks**[13] (like snails and clams). Nesting loggerhead sea turtles crawl up the beach with a flipper-over-flipper motion, like a person climbing a ladder. In the United States, loggerhead sea turtles are a threatened species.

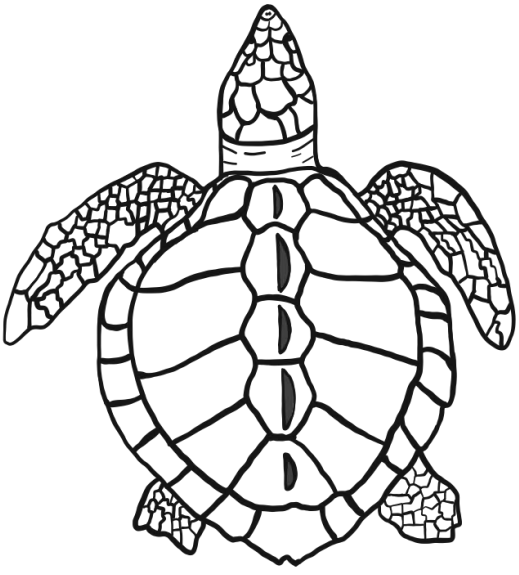




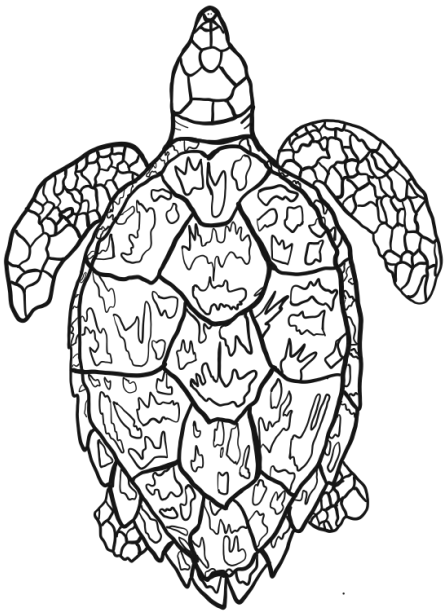
Green sea turtles also nest on Florida's beaches. This is the second-largest sea turtle species, reaching lengths of more than 4 feet, and weights of more than 400 pounds. This large brown or gray turtle gets its name from the food it eats. Adult green sea turtles are **herbivorous**[14], meaning they really like to eat plants, especially seagrass and seaweed. This green food gives the fat inside of a green sea turtles shell a green color. Younger green sea turtles also eat crustaceans, mollusks, even jellyfish. When crawling up the beach to lay eggs, momma green sea turtles use both front flippers at the same time, like a butterfly flapping its wings. Green sea turtles are slowly becoming more common in the United States, so they were recently taken off of the endangered species list, and added to the threatened species list.



The **leatherback sea turtle** is the largest turtle on Earth, and the rarest species that nests on Florida's beaches. These critically endangered turtles are truly gigantic! They can reach more than 7 feet in length, weighing 800 to1,500 pounds! Leatherback sea turtles don't have a hard bony shell like other sea turtles. Instead, their shell is tough but flexible, like thick leather. This flexible shell allows leatherback sea turtles to dive as deep as 6,000 feet under the ocean's surface without being crushed by the water pressure. Why dive so deep? Leatherback sea turtles love to eat jellyfish, which are sometimes found deep underwater. Leatherbacks have sharp cusps on their jaws and pointy spikes in their throats at make swallowing jellyfish easier.The tracks of a nesting leatherback are hard to miss. They look like a tractor drove up and down the beach!

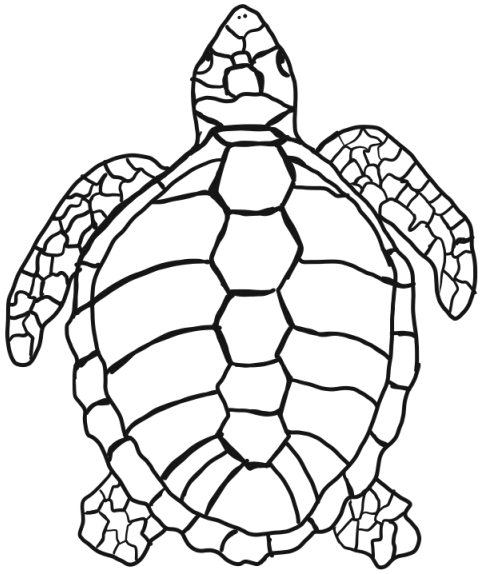


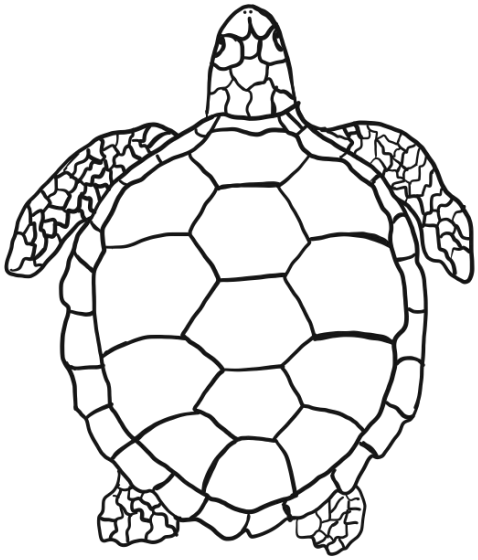
The **Kemp's ridley sea turtle** is the smallest and most endangered sea turtle species on Earth. These rare turtles nest in Mexico, but are occasionally seen off the coast of Florida. When full grown, they are only about 2 feet long, weighing between 80 and 100 pounds. During nesting season, tens of thousands of Kemp's ridley sea turtles can crowd onto a nesting beach in a single day.



Hawksbill sea turtles don't normally nest in Florida, but they are a common sight on our coral reefs, where they forage for their favorite food—sponges. This turtle's hawk-like beak is a great tool for scraping sponges right off of the reef. Hawksbill sea turtles are usually less than 3 feet in length, and weigh between 100 and 150 pounds when fully grown. This critically endangered species is in trouble because some people illegally use its beautiful shell to make jewelry and trinkets.

Although **olive ridley sea turtles** are the most abundant sea turtle species on our planet, they are rarely seen in Florida. This is another small species, averaging just 2.5 feet in length and weighing about 100 pounds. Like the Kemp's ridley sea turtle, thousands of olive ridley sea turtles can be seen crawling out of the ocean at the same time during nesting season.





The **flatback sea turtle** is only found in Australia. They reach about 3 feet in length, and weigh around 200 pounds. Because this species is found in such a remote part of the world, scientists don't know very much about them.

Sea Turtle Adaptations

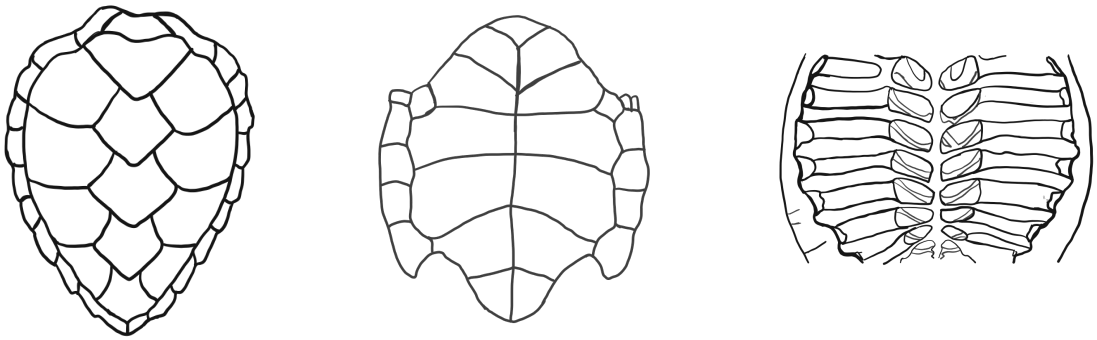
In nature, an **adaptation**[15] is a very gradual change to a plant or animal's shape or behavior that allows it to have a better chance of surviving in a difficult environment. Sea turtles have some pretty amazing adaptations to help them survive in the ocean!

Extra Long Flippers

Unlike tortoises and freshwater turtles, which have small round feet, all sea turtles have extremely long flippers. Since sea turtles live in the ocean, they have to be great swimmers. Big flippers allow sea turtles to swim for very long distances without getting tired. Plus, they let sea turtles swim really fast when they need to get away from a predator. It's just like wearing a pair of fins when you go snorkeling. For short distances, sea turtles can swim as fast as 22 miles per hour! That's really fast, especially when you compare it to the world's fastest human swimmer, who only clocks in at 6 miles per hour. It's important for sea turtles to be able to outrun predators, since they are not able to pull their head or flippers into their shell for protection.

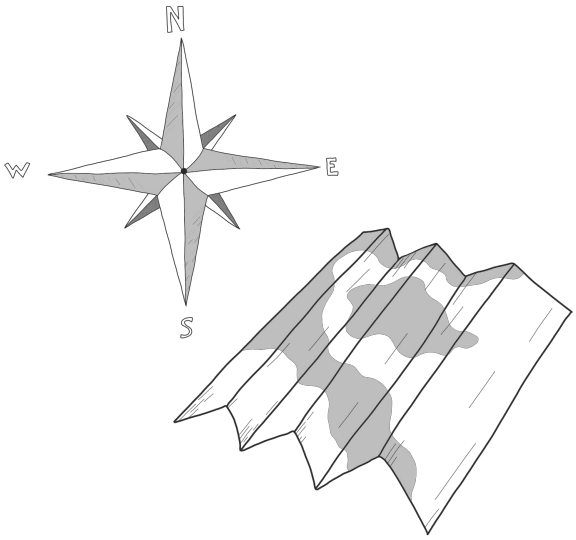
Smooth Strong Shells

A sea turtle's shell is actually part of the animal's skeleton. The top part of a sea turtle's shell is called the carapace, while the bottom part is called the **plastron**[16]. The **carapace**[17] is made up of the turtle's backbone and rib bones, which are all fused together to form a hard protective covering over the turtle's internal organs. These interconnected bones create a really strong shell, which offers great protection from predators. Hard **scutes**[18] (special scales made out of the same material as your fingernails) on the outside of the shell add another layer of protection. The flat, smooth shape of a sea turtle's shell is also an adaptation. The shell's **streamlined**[9] shape helps sea turtles glide through the water with ease. Because a sea turtle's shell is part of its skeleton, the whole shell slowly gets bigger as the turtle grows.



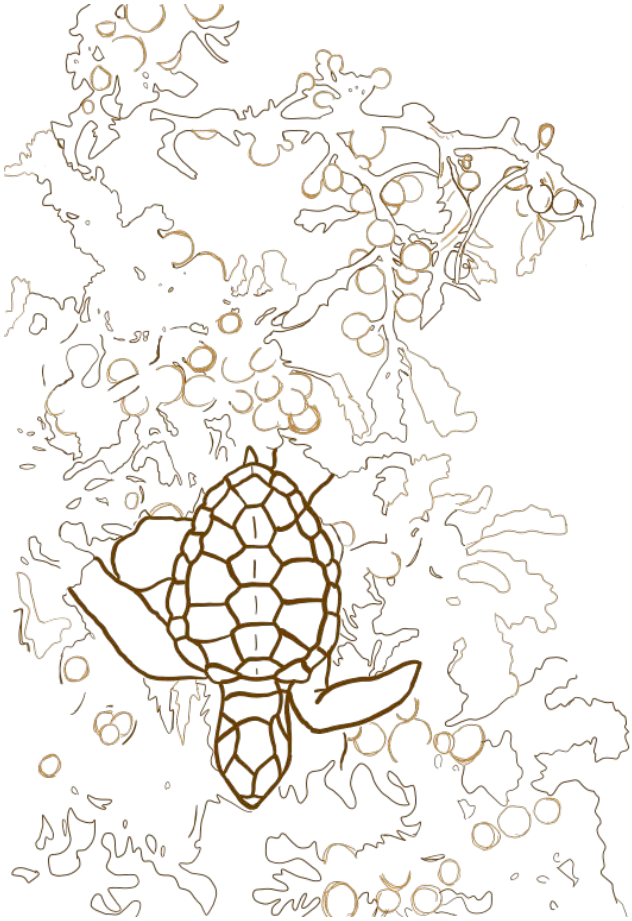
A built-in GPS

Sea turtles are fantastic navigators. They are able to travel thousands of miles without getting lost. In a special part of a sea turtle's brain, there are tiny magnetic particles which work just like a compass. This allows momma sea turtles to return to the same beach they were born on when it's time to nest.

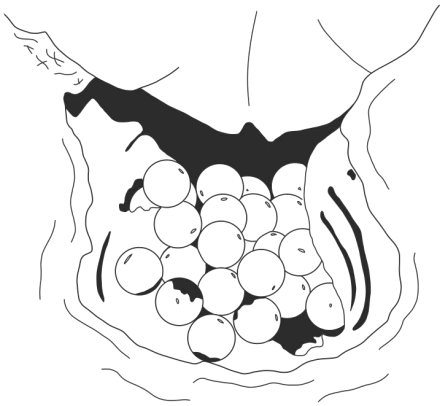


Hidden Babies

Young sea turtles have great **camouflage**[19], meaning that they are able to blend in to their environment. Baby green and leatherback sea turtles have dark backs and white bellies. This is called **counter-shading**[20]. From below, white bellies blend in with the sky, and from above, dark backs blend in with the water. This makes it hard for predators to spot tiny hatchlings. Loggerhead hatchlings are the same color as Sargassum seaweed, their first home.



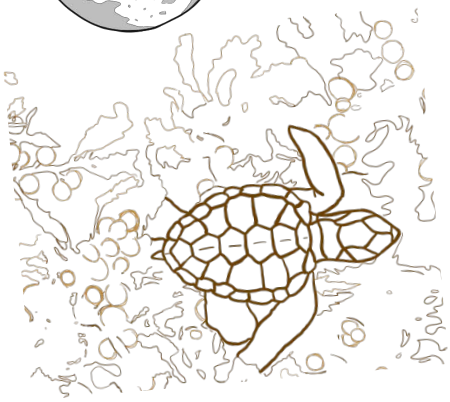
Sea Turtle Habitats



Sea turtles can live for more than 80 years! During their lifetime, sea turtles use a lot of different habitats. Let's follow a baby sea turtle through its life to see what habitats it uses.

Sea turtles lay their eggs in holes that they dig on sandy beaches, so the first few months of a developing sea turtle's life are spent buried in the sand.

When a sea turtle hatches out of its egg, it is called a hatchling. Hatchling sea turtles swim far out into the open ocean, where they spend much of their time hanging around floating patches of a special type of seaweed called Sargassum. The Sargassum provides a great place for hatchlings to hide. Plus, there's lots of food for hatchlings to eat in and around patches of Sargassum seaweed.



After a few years of floating around in the open ocean, young sea turtles **migrate**[21] to shallower areas closer to shore. These places are called nursery habitats, because this is where young sea turtles spend the next 20-30 years of their life growing up. There are two very important sea turtle nursery habitats in our part of Florida: lush underwater meadows of seagrass in the Indian River Lagoon Estuary, and reefs that are found right off the beach. Seagrass meadows and reefs provide food and shelter for growing sea turtles. During this part of their life, young sea turtles become **subadults**[22], meaning they are almost completely grown up.

Adult sea turtles use a variety of different habitats, depending on what species they are, and what part of the world they live in. Some sea turtle species use open-ocean habitats as adults, while other species spend time visiting reefs and seagrass meadows. When it's time for a momma sea turtle to lay eggs, she will often make a very long migration from a **foraging**[23] area to her favorite nesting beach.

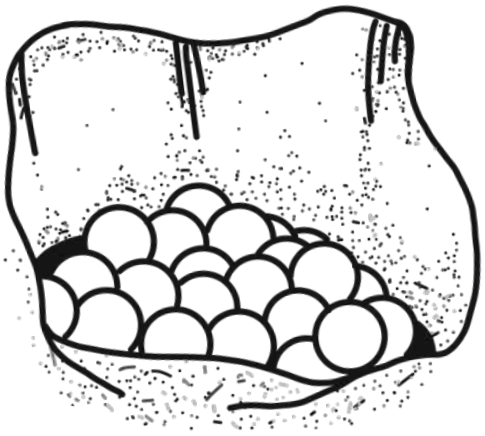
Sea Turtle Nesting Process

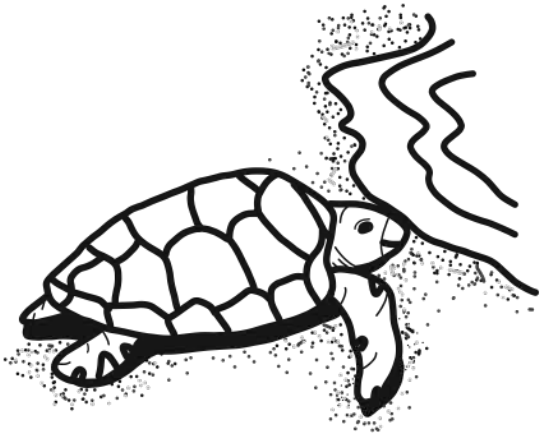
When it's time to lay eggs, a mother sea turtle will migrate back to the area where she was born. She knows that area is a good place to lay her eggs, since her mother successfully nested there too. The journey back to a nesting beach can be really long! We are lucky that the east coast of Florida is a very important nesting area for three sea turtle species - loggerheads, greens, and leatherbacks.

Most sea turtles lay their eggs at night, when the sand is cooler and there are fewer predators to worry about. Sea turtles are built for swimming, but they aren't very good at crawling on land, so nesting is a lot of work!

A nesting mother sea turtle emerges from the waves and starts her slow journey up the beach. If she sees anything that looks like a predator, she will often turn around and crawl back into the water. This isn't good for the mother or her eggs. Did you know that people on the beach look like predators to a nesting sea turtle? It's best for you and your family to stay off the beach at night during turtle nesting season so you don't accidentally scare a nesting mother. In this part of Florida, sea turtle nesting season runs from March 1st to October 31st

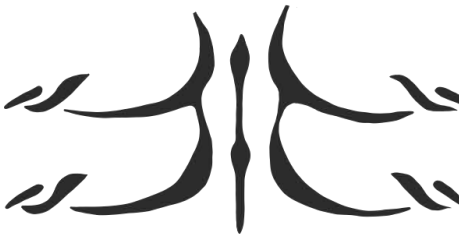
Once a mother sea turtle finds a spot she likes, she starts digging. First, she uses all four of her flippers to dig a shallow depression in the sand called a body pit. Then, just using her back flippers, she digs a much deeper hole called an egg chamber. For most sea turtles, the egg chamber is about 2 feet deep. Into the egg chamber, a nesting turtle will lay approximately 75-100 eggs. Most sea turtle eggs are about as big as a ping-pong ball, and have a tough rubbery shell.





When the egg laying is finished, the mother refills her egg chamber with sand, pats the sand down to make sure predators can't dig the nest up, then uses her big front flippers to throw sand all around the nesting area. This is the mother sea turtle's way of camouflaging her nest so predators won't be able to see it. Once finished, the mother crawls back into the ocean. In the morning, scientists who study sea turtles can tell which species nested the previous night just by looking at the tracks in the sand. Each sea turtle species leaves behind a different "flipperprint" pattern

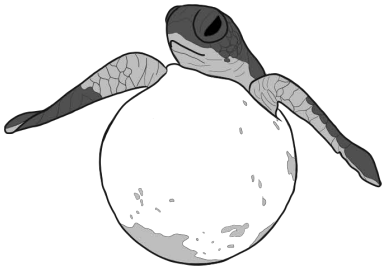
Leatherback



Loggerhead

Green

In about two months, the buried eggs will hatch, and a new generation of hatchlings will start an amazing journey.

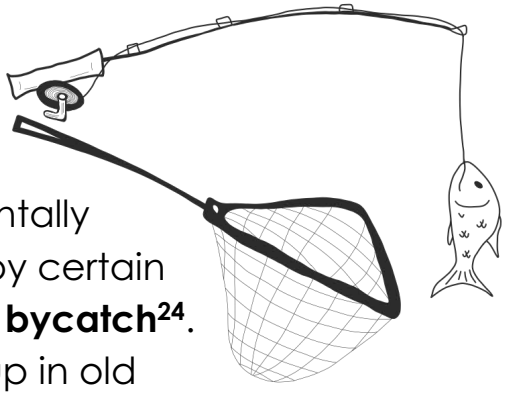


Threats to Sea Turtles

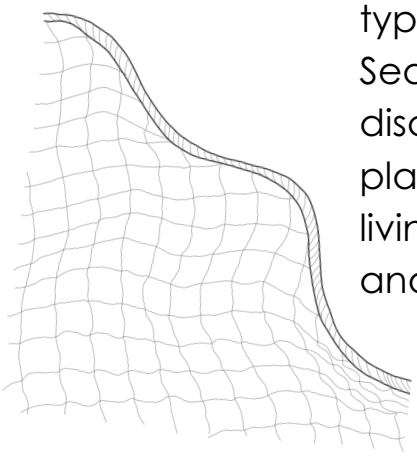
In most parts of the world, sea turtles are protected by the law. While it is illegal for people to hurt or bother sea turtles, they are still facing many threats —both accidental and intentional.

In some places, sea turtles are still harvested for their meat. Green sea turtles have been particularly affected by this practice. In other places, sea turtle eggs are taken from the beach and eaten. In recent years, the harvest of sea turtles and turtle eggs as food is becoming less common.

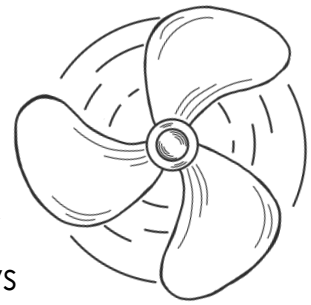
Hawksbill sea turtles are critically endangered because their shells are used in the jewelry making industry. Real "tortoise shell" jewelry is actually made from hawksbill sea turtle shells. Thankfully, most "tortoise shell" jewelry today is made out of plastic.



Sea turtles are sometimes accidentally caught in fishing nets or hooked by certain types of fishing gear. This is called **bycatch**[24]. Sea turtles can also get tangled up in old discarded nets and fishing line. In many places, people who catch seafood for a living are now required to use turtle-safe nets and gear.



Boats and boat propellers can be very dangerous to sea turtles. Many turtles are accidentally injured each year by boats. Boaters should always be on the lookout for sea turtles.



Did you know that sea turtles can get sick, just like people can? Scientists think that some sea turtle diseases are linked to water pollution.

The plastic trash floating around the world's oceans is a huge threat to sea turtles. Sea turtles accidentally eat little pieces of plastic, thinking it's food. This can make them really sick. Plastic bags and balloons are especially bad, because they look like jellyfish to a turtle.

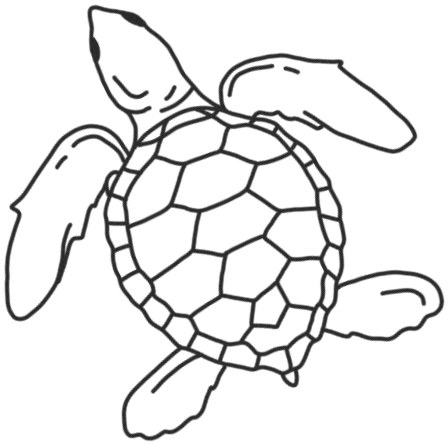
All around the globe, Earth's climate is changing. Many of these changes are being caused by centuries of pollution entering our environment. In some places, it's getting hotter, while in other areas, it's cooling down. Some parts of the world are seeing more rain than usual, while others are dealing with droughts. These changes can be harmful to sea turtles.

The gender of a baby sea turtle is determined by the temperature of its nest. When the beach gets too hot, most hatchlings end up becoming girls. For sea turtle populations to remain healthy, we need both boy and girl turtles. In some parts of the world, scientists are already finding that most hatchlings are girls.

Climate change is also causing the water level in Earth's oceans to rise. Because sea turtles nest on the beach, even tiny changes in sea level can cause nests to flood.

How can you help sea turtles?

1. Ask your family to use reusable bags at the grocery store so less plastic ends up in the ocean.
2. Stay off the beach at night during sea turtle nesting season.
3. Participate in a beach cleanup. You can also hold your own if you want—just pick up a few pieces of trash every time you visit the beach.
4. If you make a sand castle or dig a big hole in the sand, always flatten it back out before you leave the beach. This will leave a smooth path for nesting mother turtles, as well as hatchlings.
5. Don't leave beach chairs or umbrellas out on the beach overnight. They might scare a nesting turtle, or block her path up the beach.
6. Teach your friends and family what you've learned about sea turtles.



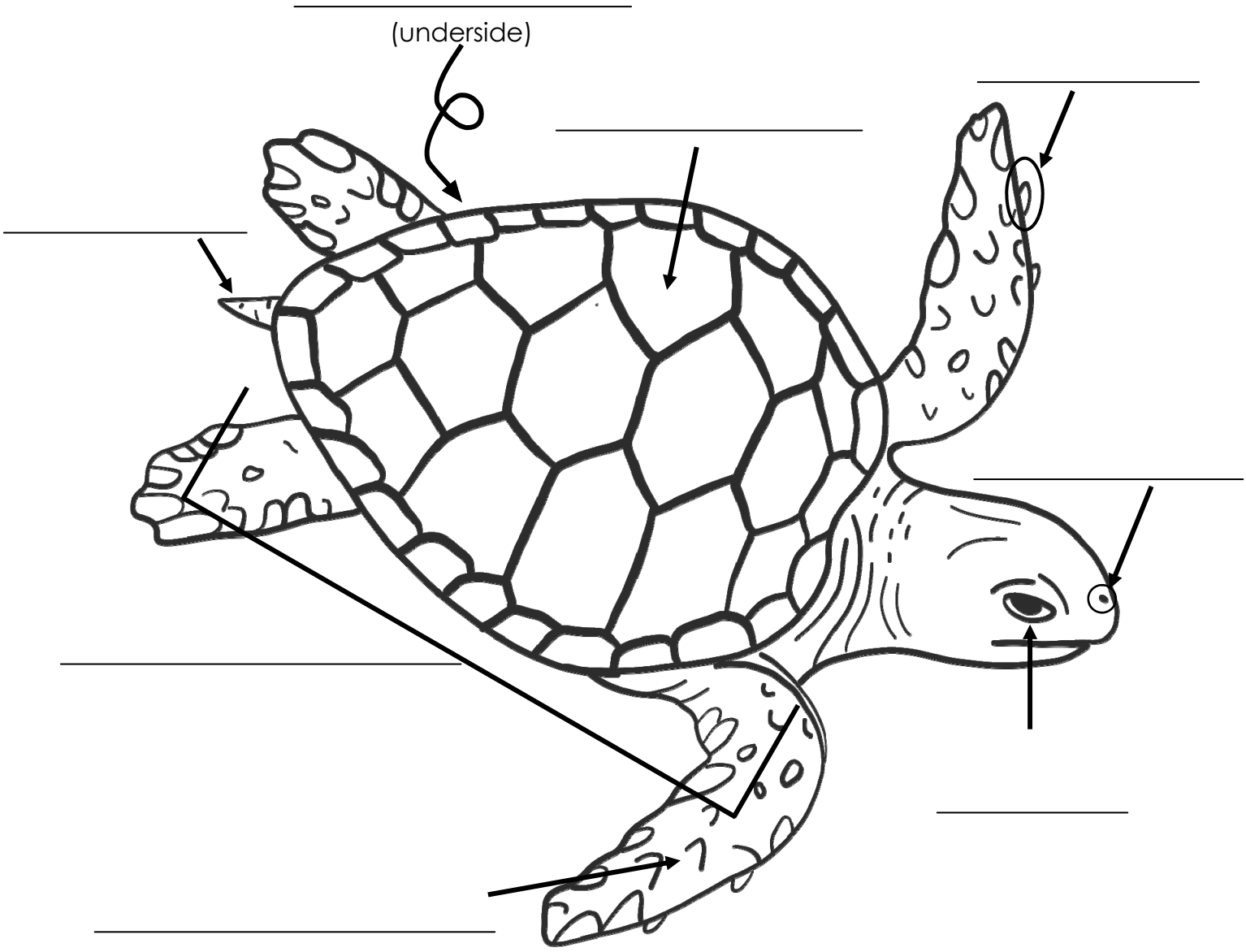
Sea Turtle Vocabulary

1. **Estuary-** A body of water where fresh water and salt water meet and mix
2. **Nursery-** A place out in nature where young animals grow up
3. **Vertebrate-** An animal that has a backbone
4. **Cold-blooded-** Body temperature determined by the environment
5. **Extinct-** A species that is no longer living anywhere on Earth
6. **Habitat**- A place where an animal lives; its home
7. **Aquatic**- Living in water
8. **Terrestrial-** Living on dry ground
9. **Streamlined**- Designed to increase speed by improving flow of air or water
10. **Endangered-** At risk of going extinct
11. **Threatened**- At risk of becoming endangered
12. **Crustaceans**- A type of animal that usually has a hard covering, or exoskeleton, jointed legs, and two pairs of antennas, or feelers
13. **Mollusks**- A type of soft-bodied animal with no bones, most grow shells
14. **Herbivorous**- Plant-eating
15. **Adaptation**- Body parts or behaviors that help a living thing survive in an environment.
16. **Carapace-** Top portion of a sea turtle's shell
17. **Plastron**- Bottom portion of a sea turtle's shell, underneath
18. **Scutes**- The scales on a turtle's carapace
19. **Camouflage-** When animals blend in with their surroundings so they are not seen by other living things
20. **Countershading-** Having dark colors on the top and light colors on the bottom
21. **Migrate** - To move from one habitat to another according to seasons
22. **Sub-adult** - An animal that isn't fully an adult
23. **Forage** - To search for food
24. **Bycatch** - The unwanted fish or other marine life accidentally caught during commercial fishing for a different species

SEA TURTLE ACTIVITIES

LABEL THE SEA TURTLE

Using the word bank, label the sea turtle's body parts.

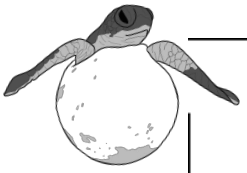


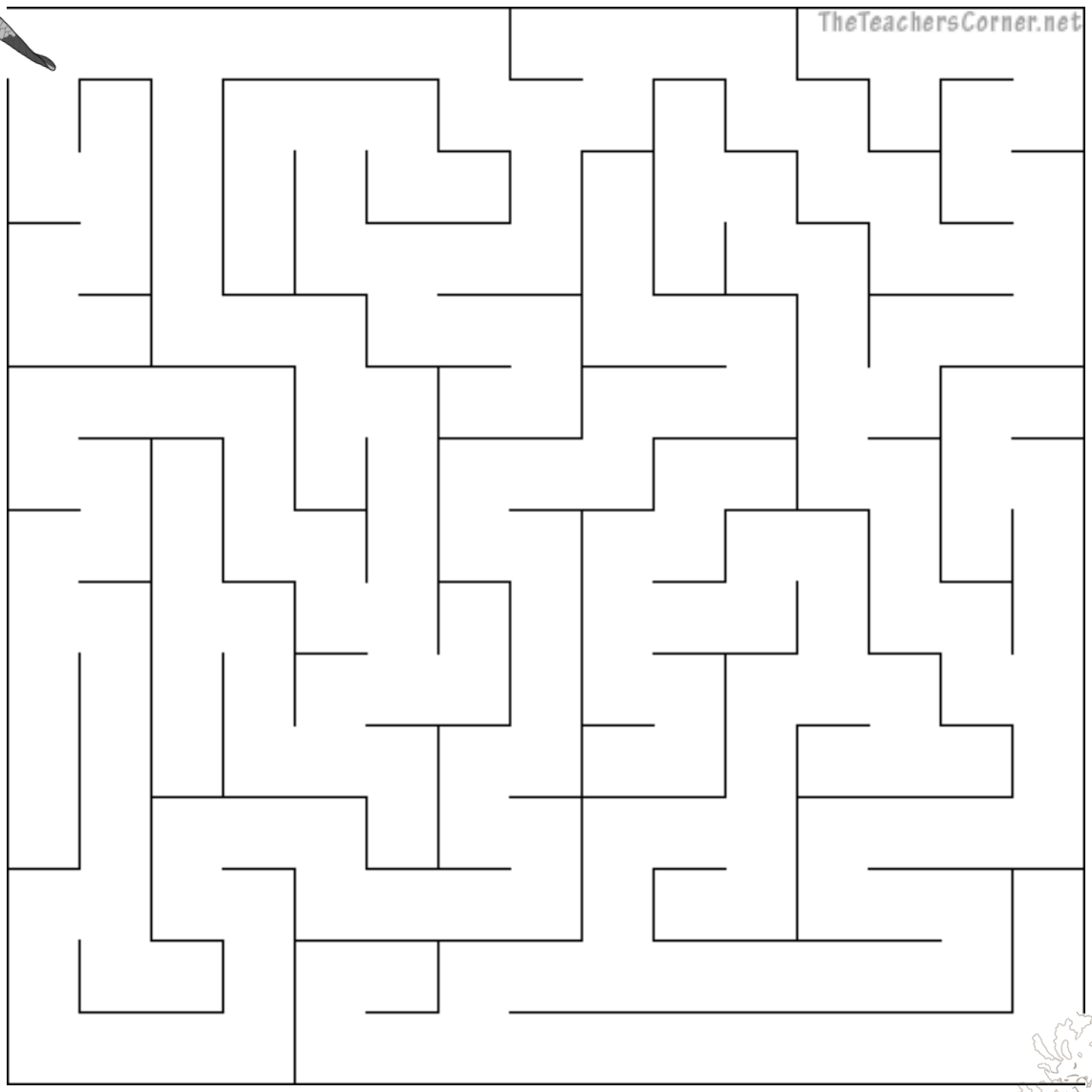
WORD BANK

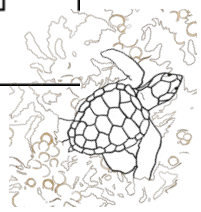
Flipper	Plastron
Scute	Nostril
Tail	Eye
Carapace	Claw

HATCHLING HAZARDS

Can you help the hatchling reach the Sargasso Sea?



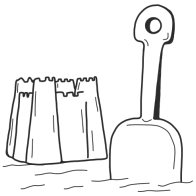




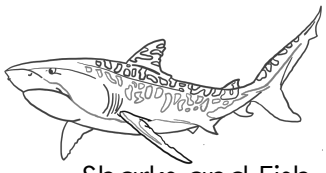
Hatchlings and all sea turtles struggle to survive many different hazards, including:

Lights Seen on the Beach

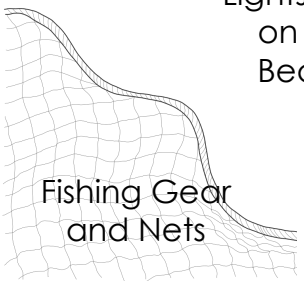
Crabs



Sandcastles, Toys, and Holes on the Beach

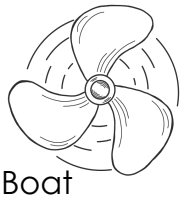


Sharks and Fish



Fishing Gear and Nets

Birds



Boat Propellers

Plastic

WHO AM I?

Fill in the missing letters to figure out which sea turtle is pictured.

1. E A T S S E A ◯ R A S S, S E A W E E D, A N D A L G A E
2. G R A Z E S O N S E A F L O O ◯
3. L A R G E S T H A R D S H ◯ L L E D S E A T U R T L E
4. N A M E D F O R D I ◯ T A N D C O L O R O F F A T
5. C A N W E I G H M O R E T H A N F O U R H U ◯ D R E D P O U N D S

Answer: Green

WHO AM I?

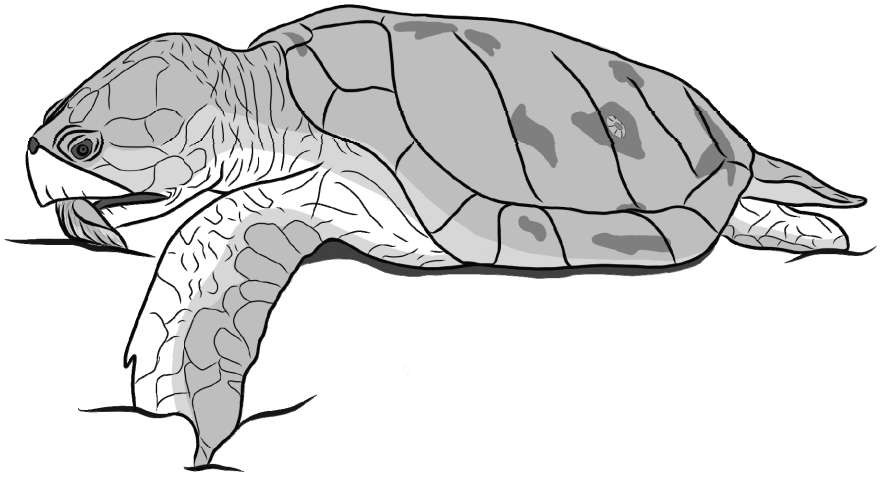
Fill in the missing letters to figure out which sea turtle is pictured.

1. JEL_YFISH EATER
2. SCALELESS SH_LL
3. DEEP SE_ DIVER
4. GROWS OVER SIX FEE_ LONG
5. CAN HOLD BREAT_ FOR HOURS
6. FIRST N_STERS IN FLORIDA EACH SPRING
7. CAN MIG_ATE TO THE ARTIC
8. _IGGEST OF ALL SEA TURTLES
9. GREY, BL_CK, AND WHITE
10. HAS _USPS IN JAWLINE
11. HAS SPI_ES IN THROAT

Answer: Leatherback

WHO AM I?

Fill in the missing letters to figure out which sea turtle is pictured.



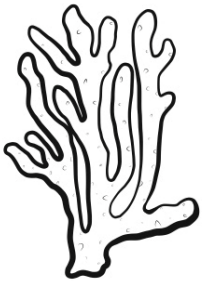
1. EATS HARD SHEL_ED ANIMALS
2. GR_WS OVER THREE FEET LONG
3. BROWN AND ORAN_E OUTSIDE
4. LAYS OVER ONE HUNDRED EG_S PER NEST
5. MOST IMPORTANT FLORIDA N_STER
6. WA_MS BY FLOATING AT SURFACE
7. NAMED FOR T_ICK HEAD AND NECK
8. LABELED AS THR_ATENED IN FLORIDA
9. "CLIMBS A L_DDER" FLIPPER TRACKS
10. STRONG BITE CRACKS HAR_ FOOD

Answer: Loggerhead

DINNER IS SERVED!

Draw lines to match the sea turtle to its favorite food. Remember— most sea turtles like to eat more than one kind of food.

Jellyfish



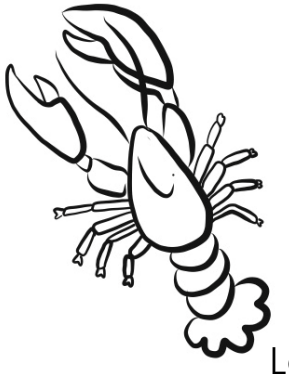
Algae/seaweed

Shrimp

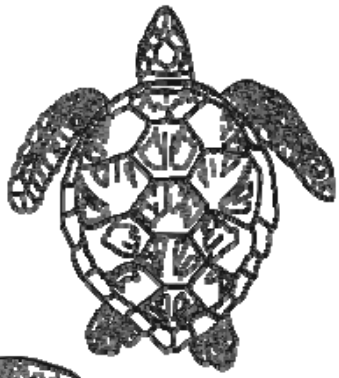
Seagrass

Crab

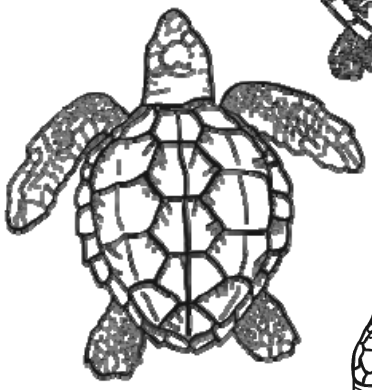
Sponge



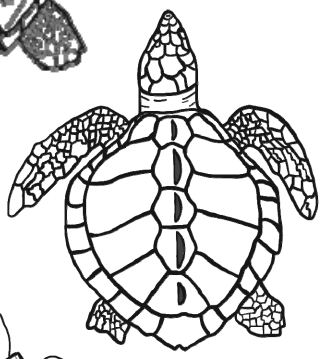
Lobster



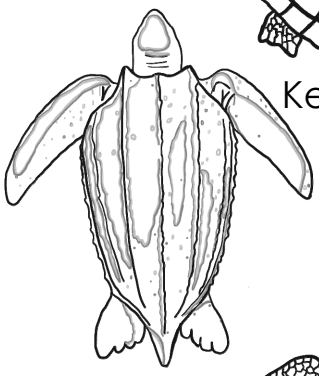
Green



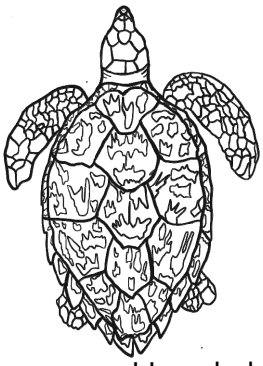
Loggerhead



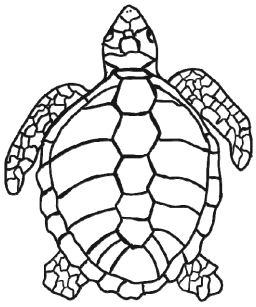
Kemp's Ridley



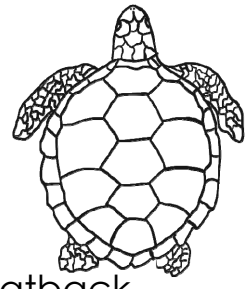
Leatherback



Hawksbill



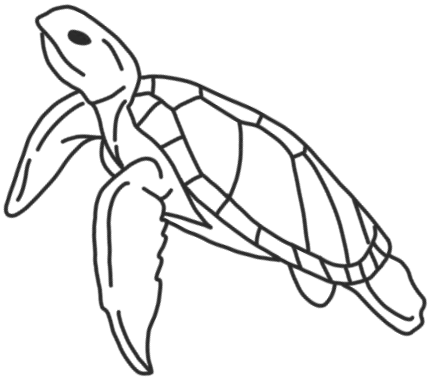
Olive Ridley

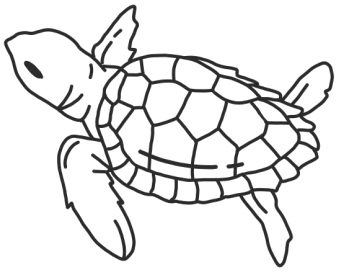


Flatback

SEA TURTLES

Complete the crossword puzzle below.





Across

1. A type of reptile that grows shell
3. A special scale on a turtle
5. Back shell of a turtle
7. An animal that uses outside temperatures to control inside temperatures
10. A brown floating algae which hatchlings live in
11. A turtle that lives on land

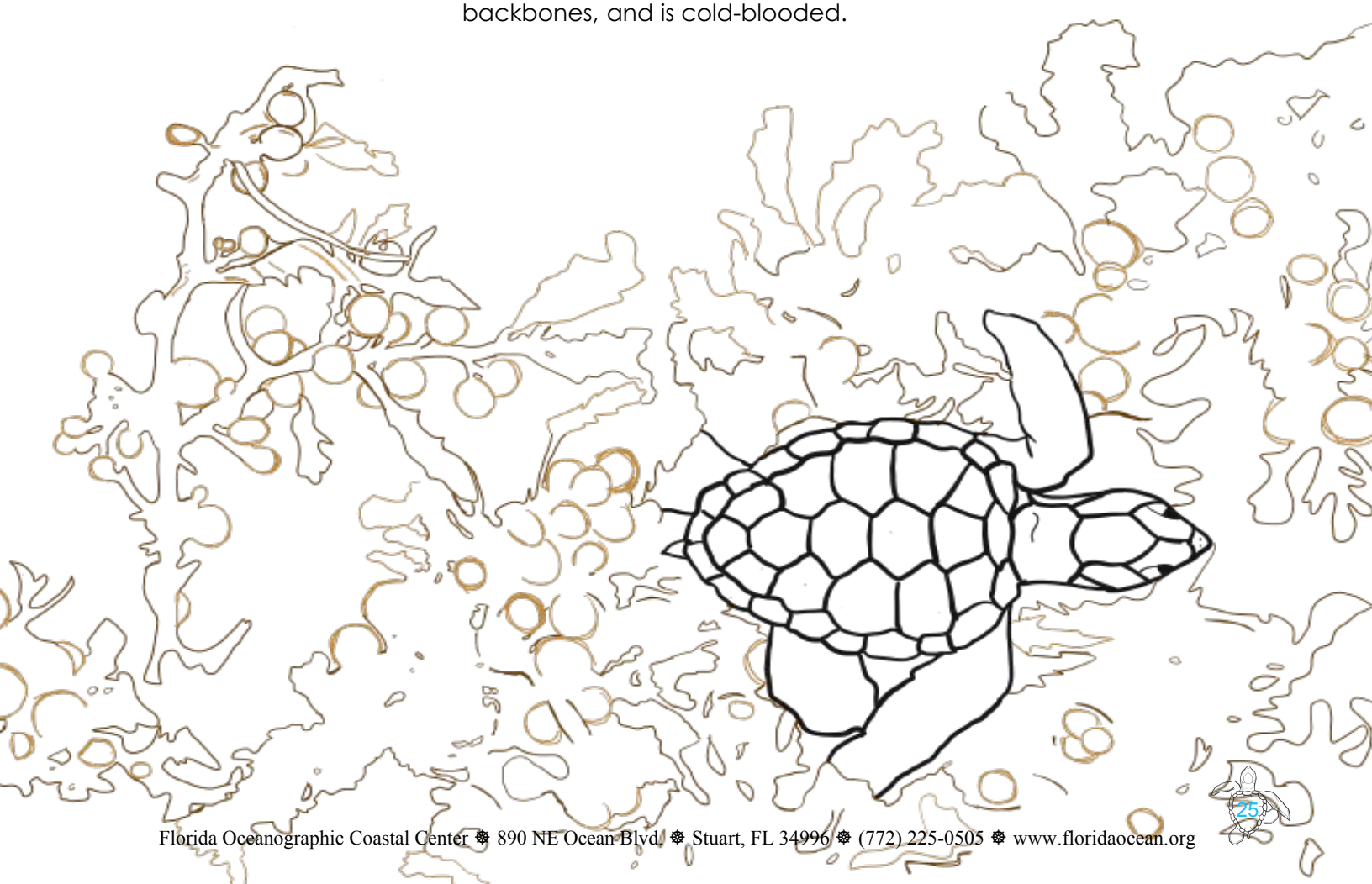
Down

2. A type of animal that has scales, is cold-blooded, and lays eggs
3. Located in a sea turtle's skull and used to get rid of extra salt
4. A baby sea turtle
6. An animal with a backbone
8. Belly shell of a turtle
9. The movement of an animal from one place to another

SEA TURTLE WORD MATCH-UP

Write the letter of the correct match next to each word.

1. _____ Reptile	a. An animal that has a backbone
2. _____ Sea Turtle	b. When animals move from one place to another.
3. _____ Salt Gland	c. The back or top of a turtle's shell
4. _____ Carapace	d. The special name for a scale on a turtle's shell.
5. _____ Plastron	e. A specific type of turtle that lives in salt water.
6. _____ Scute	f. The brown algae sea turtles float and migrate on in the ocean.
7. _____ Hatchlings	g. A freshly hatched sea turtle.
8. _____ Flipper	h. A type of land turtle.
9. _____ Sargassum	i. The belly or bottom of a turtle's shell
10. _____ Vertebrate	j. An organ that sea turtles use to remove extra salt from their body.
11. _____ Migration	k. The flattened arms and legs of sea turtles.
12. _____ Tortoise	l. A group of animals that has scales, lays eggs, breathes air with lungs, has backbones, and is cold-blooded.



SEA TURTLE WORD SEARCH

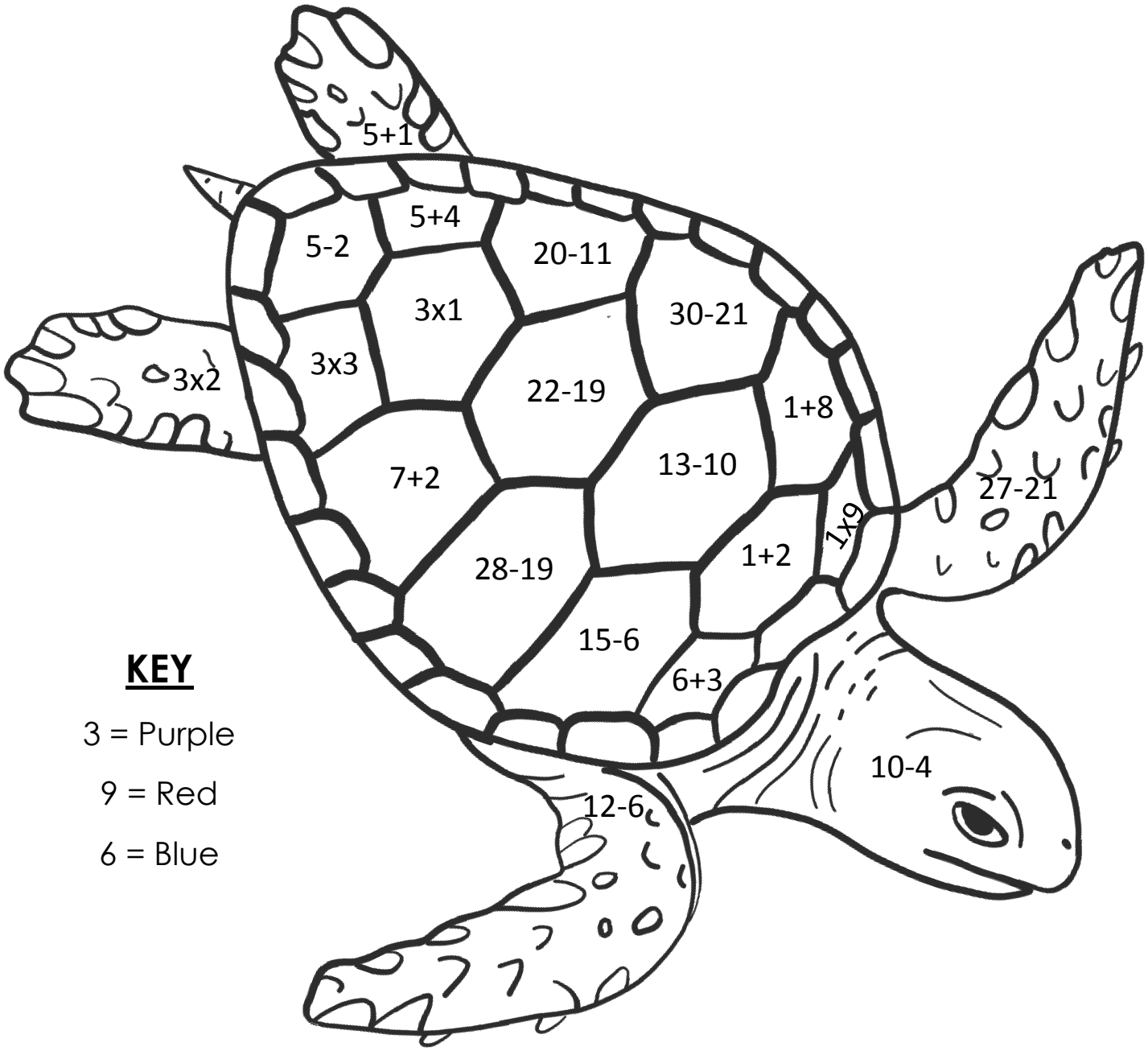
Use the vocabulary listed below and circle the words in your search. Words can be found up and down, diagonally, and side-to-side.

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

TURTLE	REPTILE	TORTOISE
CARAPACE	PLASTRON	SCUTE
VERTEBRATE	COLDBLOODED	SALT
GLAND	HYDRODYNAMIC	HATCHLING
SUBADULT	MIGRATION	FLIPPER

COUNT THE SCUTES

Solve the math problems to color the sea turtle's shell. Use the key to figure out how many lateral scutes this sea turtle has.



The **vertebral scutes** of a sea turtle, in red, run down the middle of their back. The **lateral scutes**, in purple, are located on either side. The number of lateral scutes on a turtle's shell can tell us which species it is. Green sea turtles have 8 lateral scutes (4 on each side) and loggerhead sea turtles have 10 lateral scutes (5 on each side). How many lateral scutes are on this sea turtle's shell? Is it a green or loggerhead sea turtle?

Answer: 10 lateral scutes; loggerhead