

Sea Turtle Adventures II

The adventures continue...

An Activity Book for All Ages



This activity book has been brought to you by the Sarasota County Sea Turtle Protection Program. Our goal is to raise awareness about sea turtle biology, and the threats both sea turtles and coastal habitats face.

We especially want to thank the many volunteers, residents, and visitors who help make our beaches and surrounding waters more turtle friendly.

Much of this book was written and illustrated by Brendan Coudal, a local artist/writer and volunteer with Mote Marine Laboratory's Sea Turtle Research and Conservation Program. He has a small Studio on Casey Key where he lives and works and is inspired by the many wonderful and beautiful creatures above and below the sea.

For more information on sea turtles, contact:
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2817 Cattlemen Road
Sarasota, Florida 34232
(941) 861-6210

Or

Mote Marine Laboratory
1600 Ken Thompson Parkway
Sarasota, Florida 34236
(941) 388-4441

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Welcome to Sarasota County!

Sarasota County's beaches and surrounding waters host one of the world's largest, and most important populations of **threatened** and **endangered** sea turtles. While many sea turtles make Sarasota County their home year-round, others visit our beaches from far away to mate and nest. Each year between May 1st and October 31st, adult female sea turtles crawl up on our sandy beaches to nest. During this special time of year, there are many things we can do to help and protect these magnificent creatures.

Disturbing nesting sea turtles, nests, and **hatchlings** is against the law. If you encounter a female sea turtle or nest, please keep your distance. Sea turtles are often disturbed by humans on the beach at night.

Lights on the beach may confuse and **disorient** adult and hatchling sea turtles. Indoor lights, patio and pool lights, car headlights, fishing lamps, flashlights, and flash bulbs from cameras can disturb and confuse sea turtles, especially tiny hatchlings. Too often **disorientations** result in serious injury or death. You can help by keeping beaches dark for sea turtles.

Turtles can easily become trapped in beach furniture, umbrellas, tents, and toys. By removing items from the beach at night, we can provide a more natural and safe shoreline for the turtles to nest.

Pets, motor vehicles, and campfires are extremely dangerous to sea turtles and are not allowed on the beach.

Please help keep our beaches clean by picking up garbage, especially plastic bags, balloons, and plastic wrappers. Items like these are a serious threat to sea turtles, as they can mistake them for food and become very sick or die.

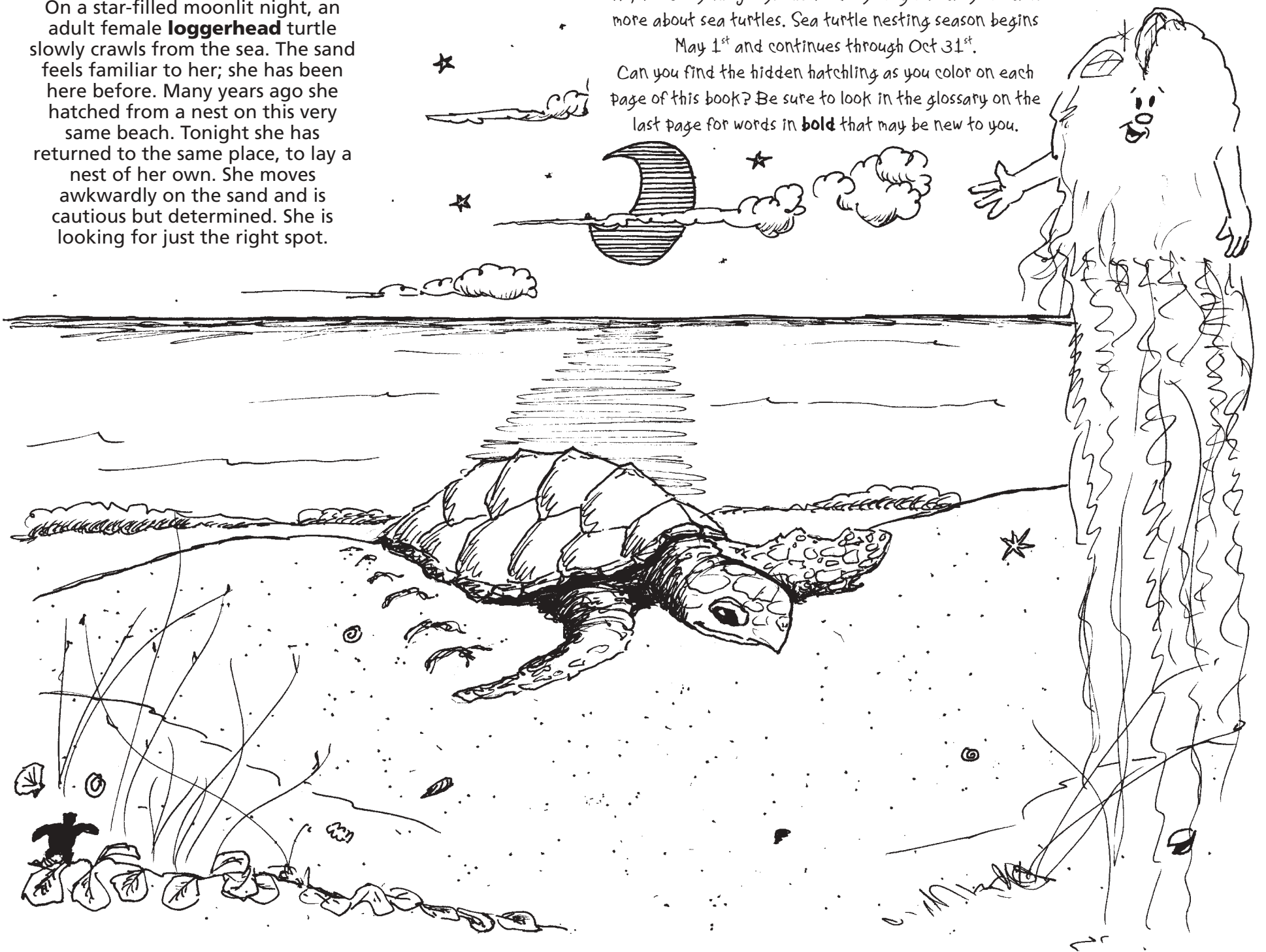
Thank you for helping to make our beaches more turtle friendly!

Sincerely,
Your friends at Sarasota County
Environmental Services

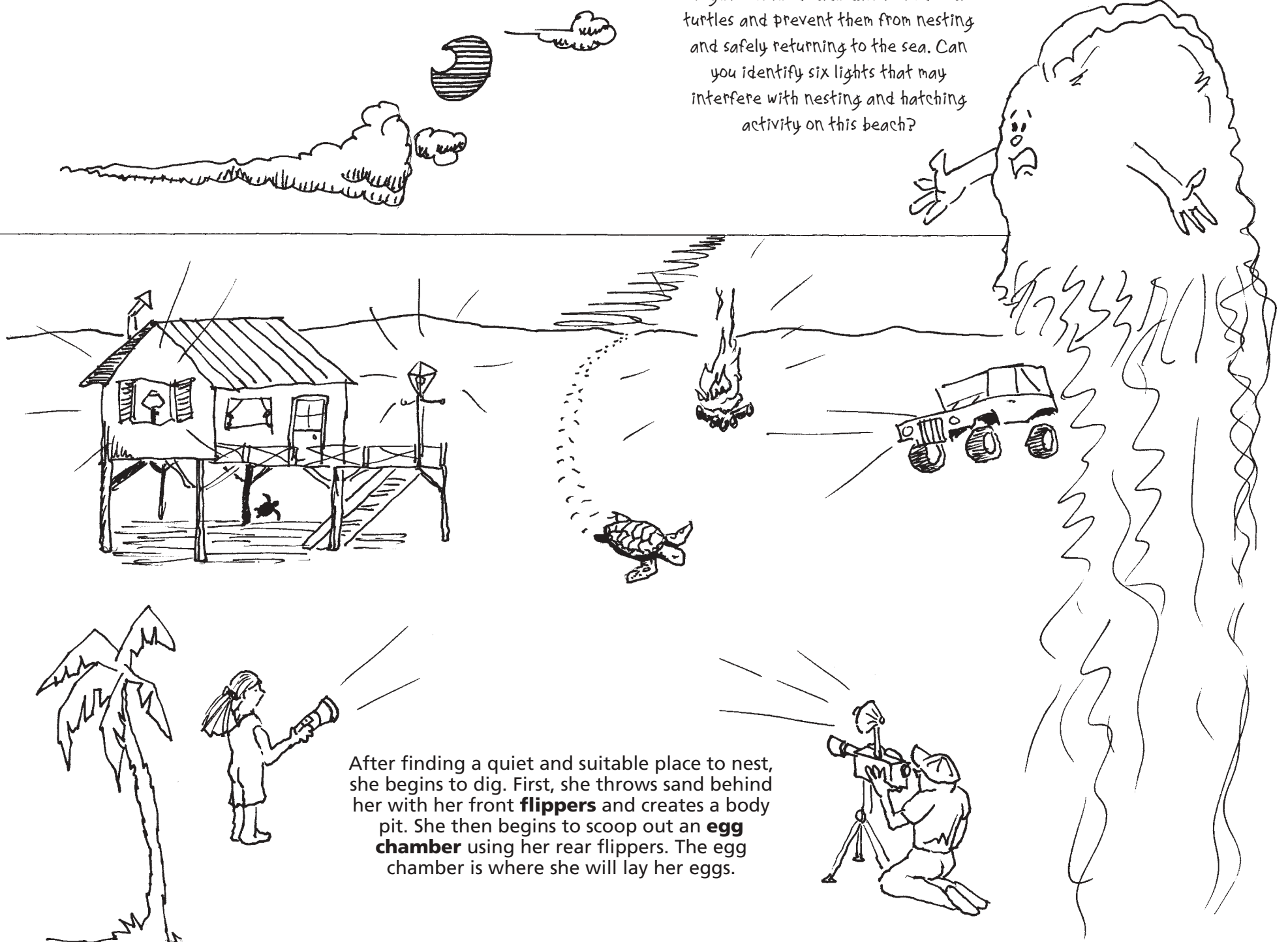
On a star-filled moonlit night, an adult female **loggerhead** turtle slowly crawls from the sea. The sand feels familiar to her; she has been here before. Many years ago she hatched from a nest on this very same beach. Tonight she has returned to the same place, to lay a nest of her own. She moves awkwardly on the sand and is cautious but determined. She is looking for just the right spot.

Hi, I'm Jolly the jellyfish! I'll be your guide as you learn more about sea turtles. Sea turtle nesting season begins May 1st and continues through Oct 31st.

Can you find the hidden hatchling as you color on each page of this book? Be sure to look in the glossary on the last page for words in **bold** that may be new to you.



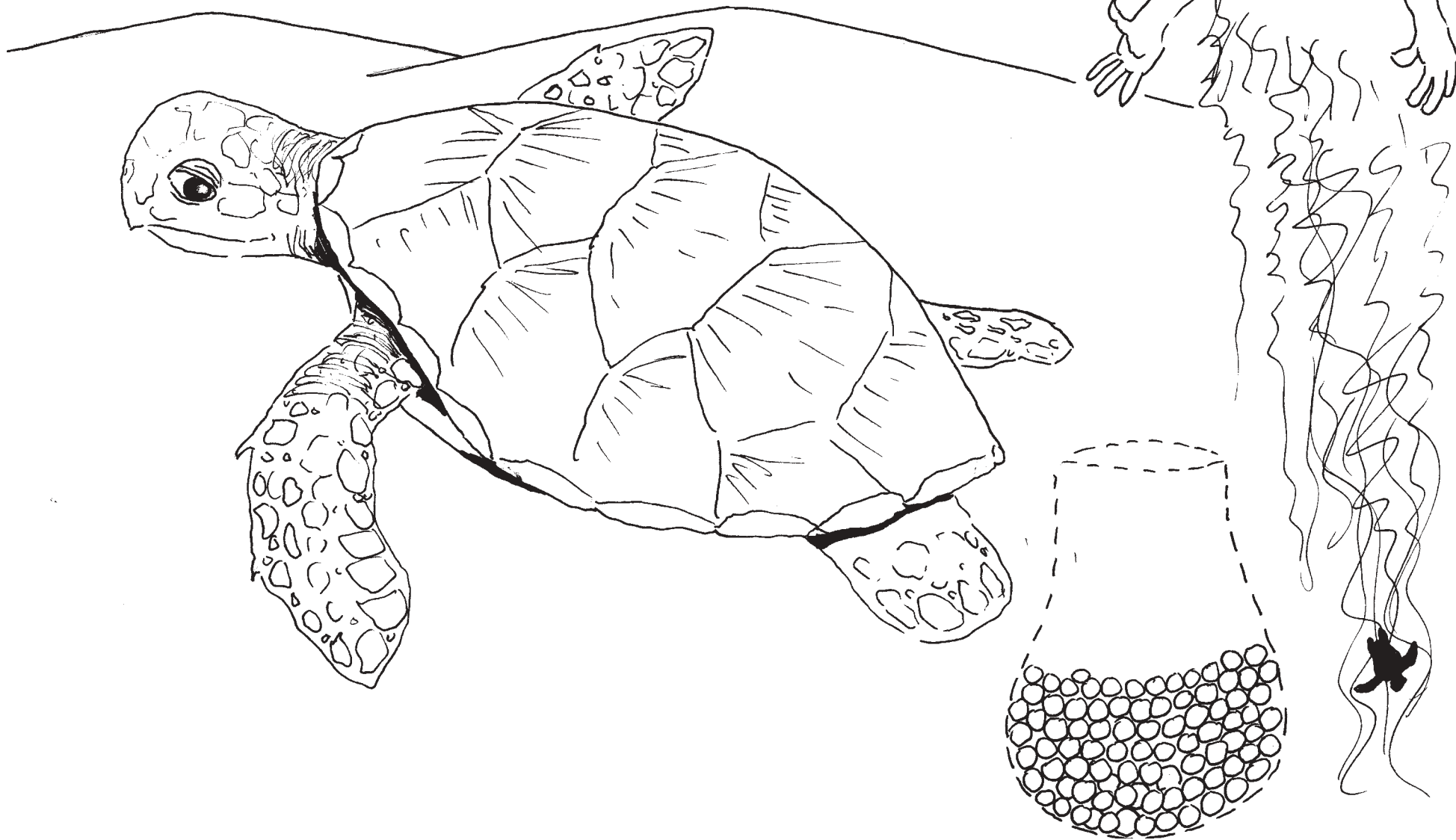
Lights on the beach can disturb sea turtles and prevent them from nesting and safely returning to the sea. Can you identify six lights that may interfere with nesting and hatching activity on this beach?



After finding a quiet and suitable place to nest, she begins to dig. First, she throws sand behind her with her front **flippers** and creates a body pit. She then begins to scoop out an **egg chamber** using her rear flippers. The egg chamber is where she will lay her eggs.

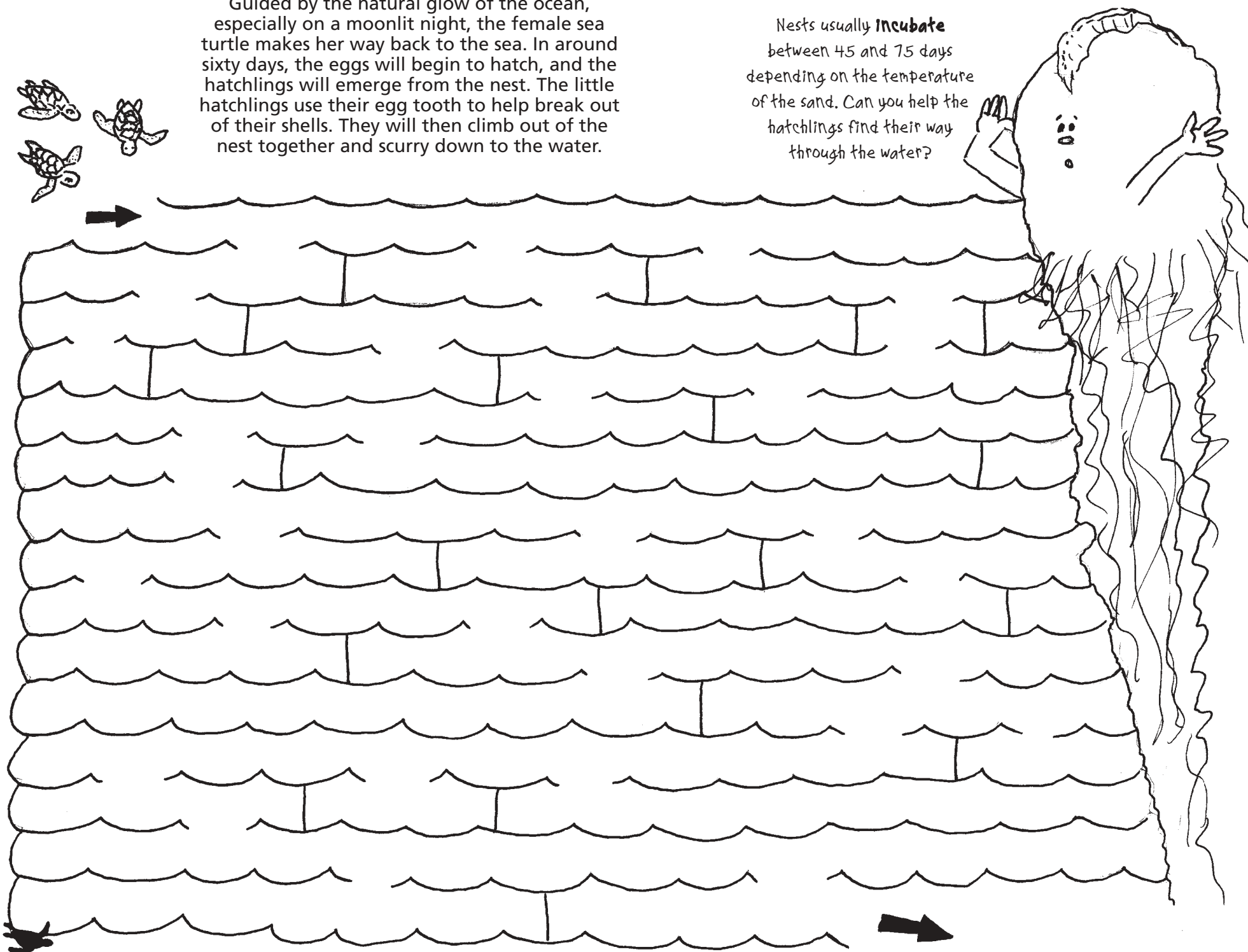
Once she has carefully dug an egg chamber, the sea turtle will begin to lay her eggs. She will fill her egg chamber with an **average** of one hundred soft, leathery, ping-pong ball-sized eggs, and then carefully cover it with sand. A nest of eggs is called a **clutch**. She has come up onto the beach to make her nest and lay her eggs and now she is tired, but happy to return to her home in the sea.

Some sea turtles will nest several times in a season. Can you count how many eggs are in this clutch?



Guided by the natural glow of the ocean, especially on a moonlit night, the female sea turtle makes her way back to the sea. In around sixty days, the eggs will begin to hatch, and the hatchlings will emerge from the nest. The little hatchlings use their egg tooth to help break out of their shells. They will then climb out of the nest together and scurry down to the water.

Nests usually **incubate** between 45 and 75 days depending on the temperature of the sand. Can you help the hatchlings find their way through the water?



Usually, the hatchlings will **emerge** from the nest at night and make a quick dash. With their flippers flipping as hard as they can, the little turtles head in the direction that seems brightest to them, which should be the natural glow of the sea. The journey from the nest to the sea is full of danger. Sea birds, crabs, raccoons, armadillos, and people are just a few of the **predators** they must avoid.

Can you name five predators that may harm the hatchlings during their dash for the sea? Unscramble the letters, and then draw a line to identify each predator.

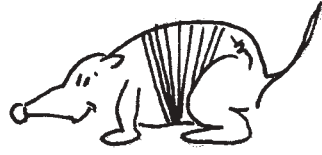
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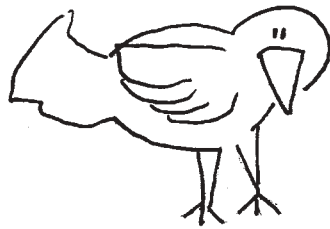
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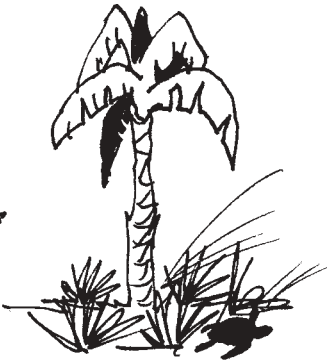
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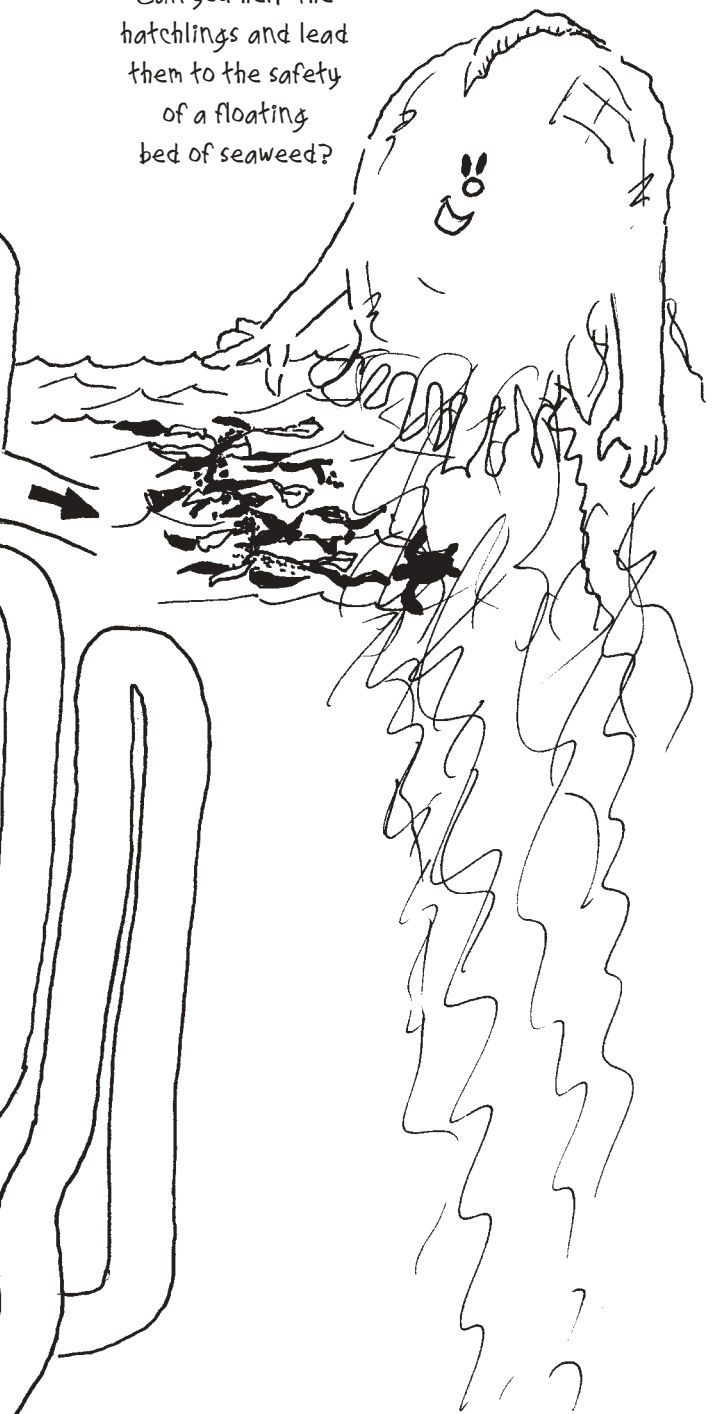
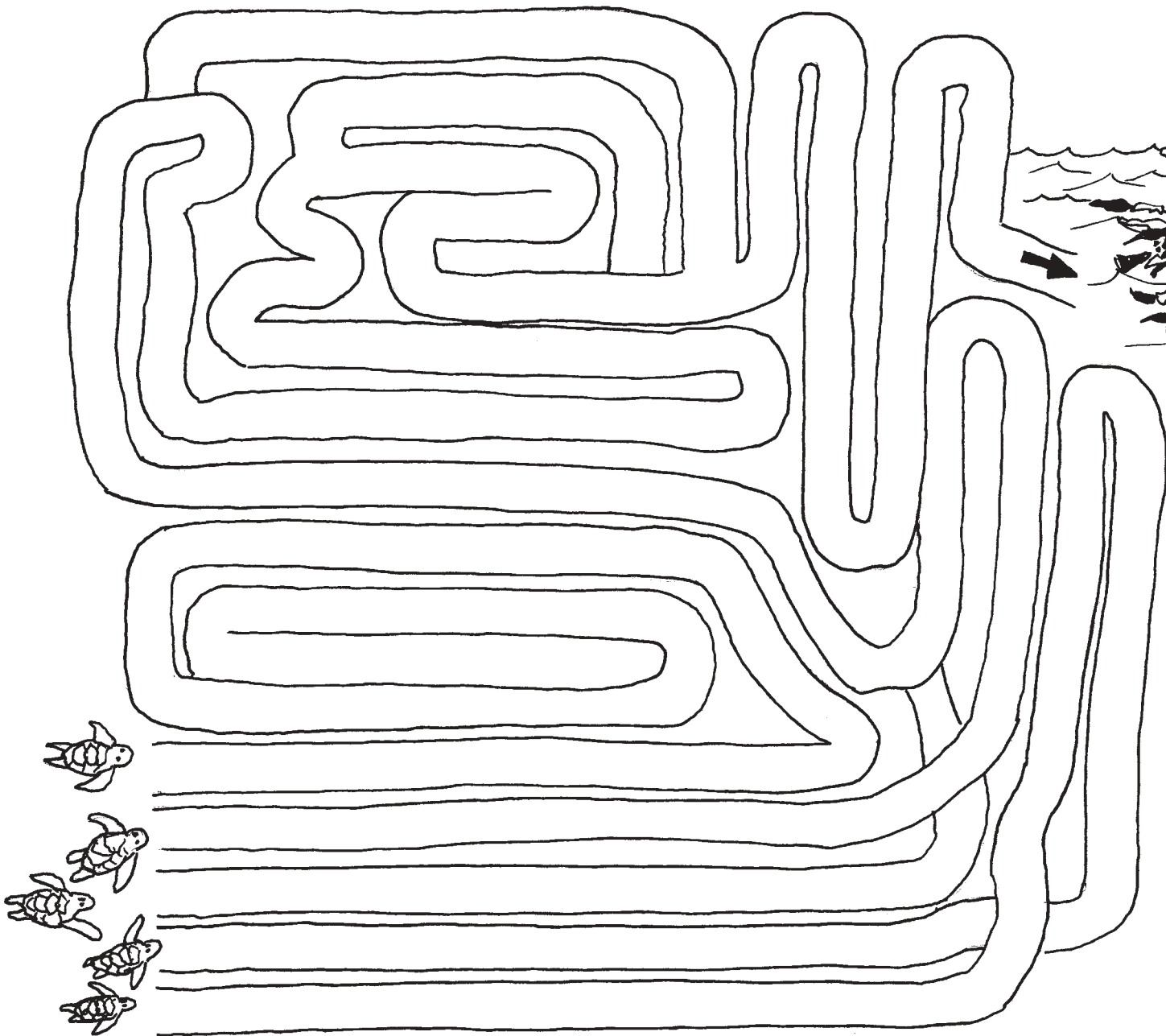


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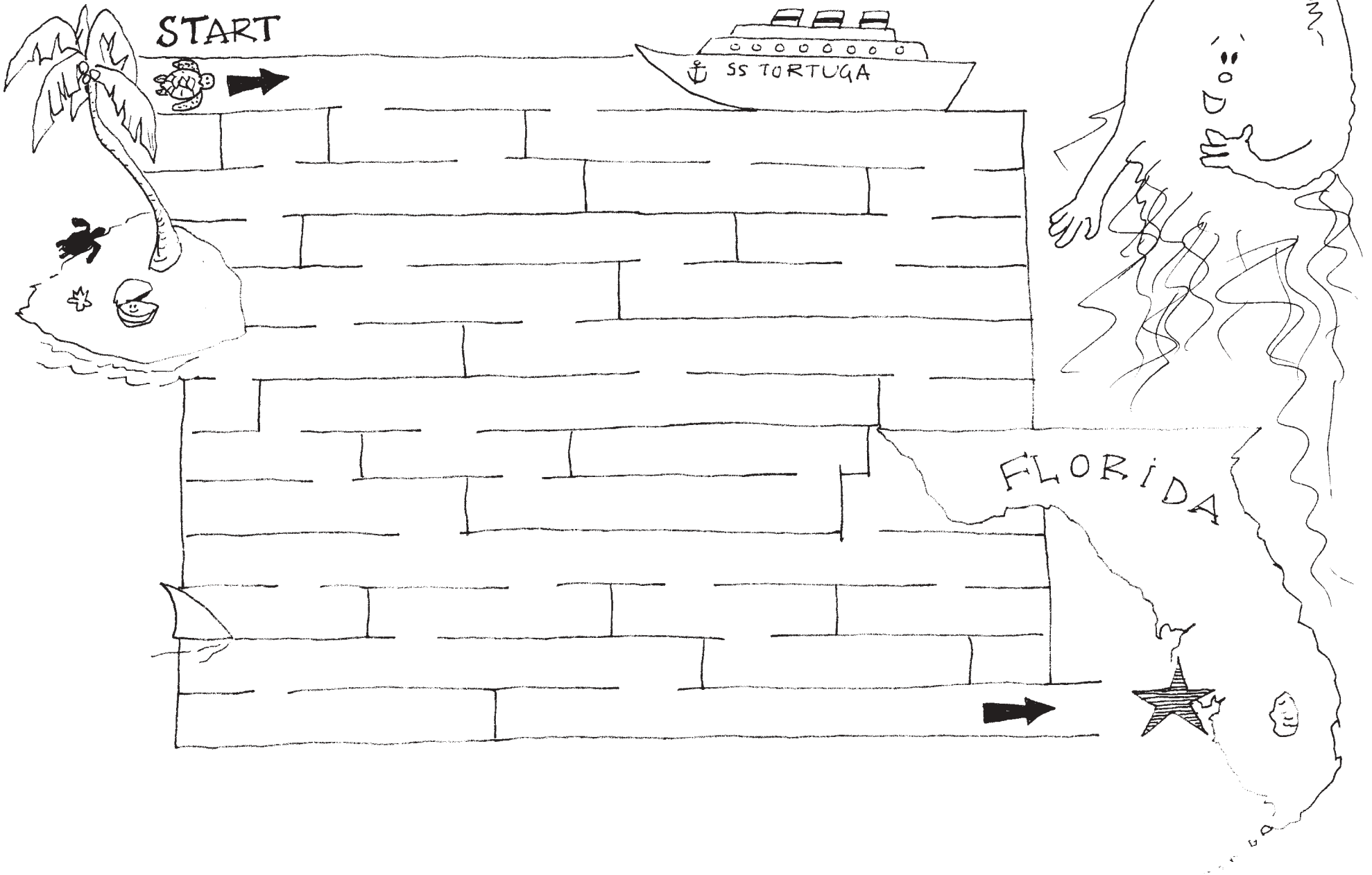
Many of the hatchlings will make it safely to the sea. In the open water there are other dangers awaiting them. Snook, tarpon, sharks and other fish may eat them. The hatchlings swim hard at the surface. Their white under-bellies blend in with the sun-lit sea surface to help **camouflage** them from predators below. Their dark backs blend in with the deep blue of the open ocean and help disguise them from predators above. Floating beds of seaweed provide food and shelter for the weary turtles.

Can you help the hatchlings and lead them to the safety of a floating bed of seaweed?



After many years at sea, the turtles grow to be very large and become so strong that they can even swim faster than a human! The turtles will ride the warm ocean currents and **migrate** hundreds and sometimes thousands of miles. Sea turtles migrate to areas where food is plentiful, or to mate with turtles and nest.

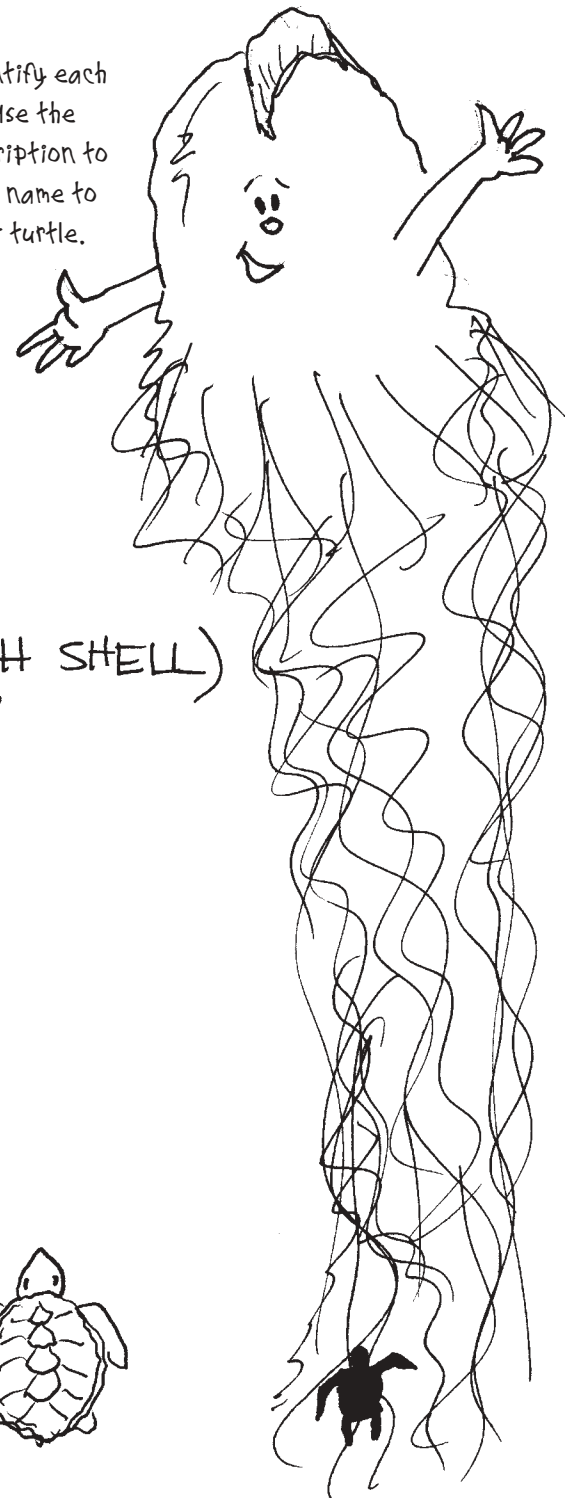
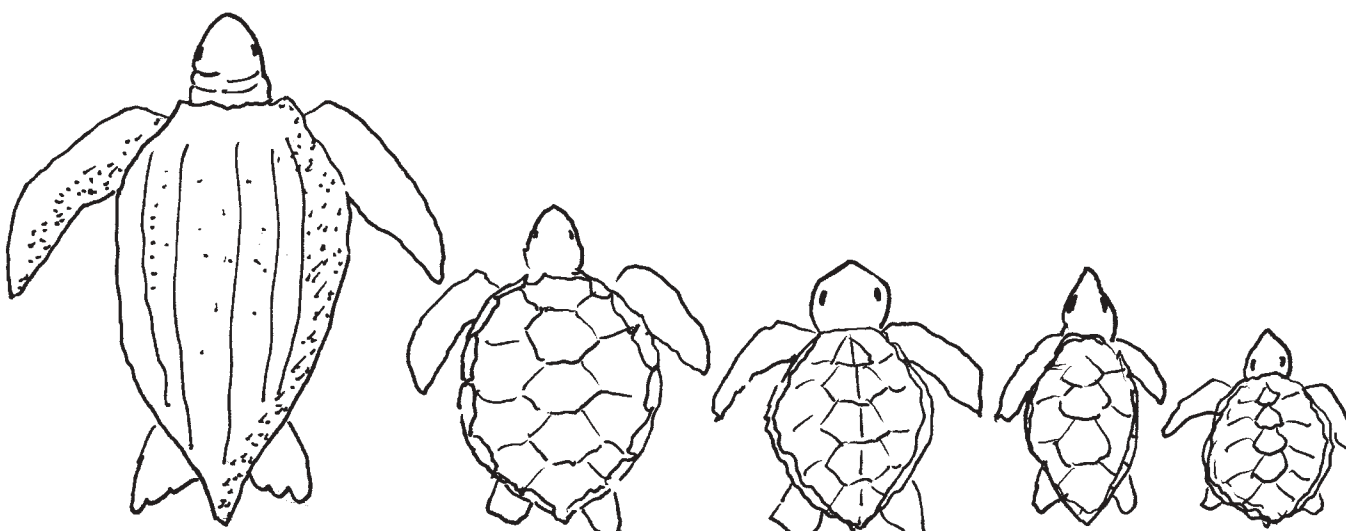
Can you help this female sea turtle return to the very beach she hatched from?



There are five different **species** of sea turtles found off the Florida coast. The threatened loggerhead sea turtle is the most common in Florida. Occasionally, an endangered **green sea turtle** will nest on our shore. Even the very rare and endangered **Kemp's ridley, hawksbill, and leatherback** sea turtles nest on Florida beaches.

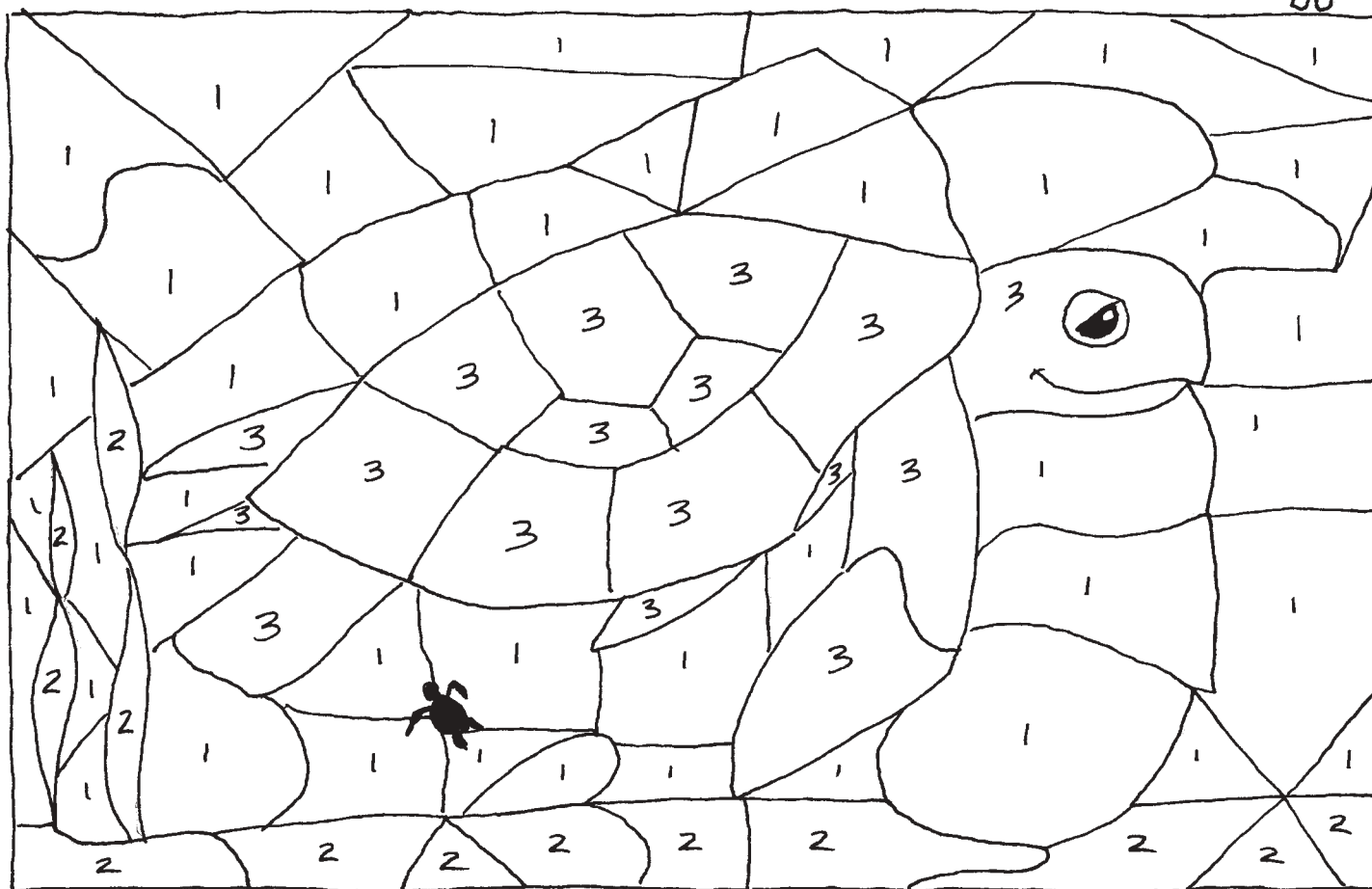
Can you identify each species? Use the species description to connect the name to the correct turtle.

- LOGGERHEAD
(LARGE HEAD)
- HAWKSBILL
(POINTED BEAK)
- KEMP'S RIDLEY
(SMALLEST)
- LEATHERBACK
(LARGEST)
- GREEN
(ROUNDISH SHELL)



Sea turtles have a hard outer shell called a **carapace**; this is made up of large scales called **scutes**. The underside of the turtle is called the **plastron**. Sea turtles use their front flippers to swim and use their rear flippers to help steer. Turtles also have a keen sense of smell and can see very well underwater. Even though they don't have ears you can see, they can hear well also.

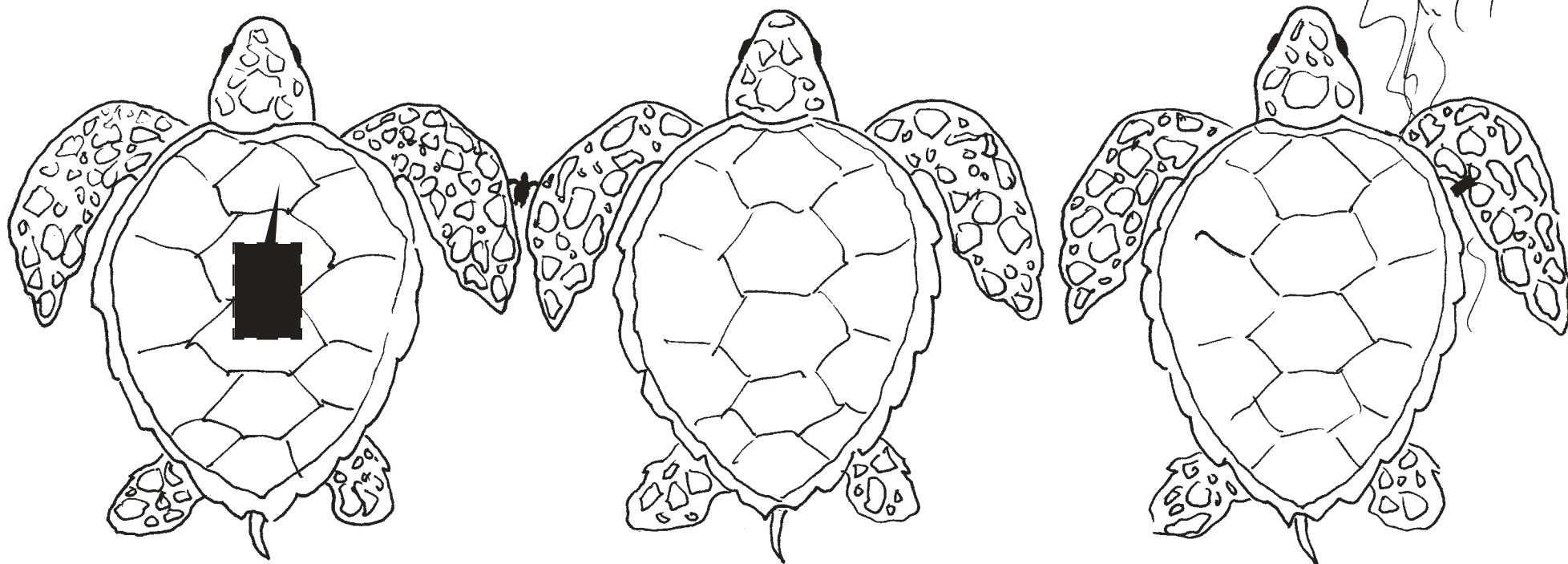
Can you find the hidden picture?
Color the 1's BLUE. Color the 2's GREEN. Color the 3's BROWN.



There are many things humans don't know about sea turtles. Researchers and biologists try to learn more about sea turtles by **tagging** the females that come ashore to nest on our beaches. Some turtles may receive an **external** flipper tag, which is visible on the flipper. Some researchers use **internal** flipper tags that are not visible on the flipper and must be read with a special scanner. Other turtles may be fitted with a **satellite transmitter** that allows us to track the turtles' movement from satellite readings sent from space!

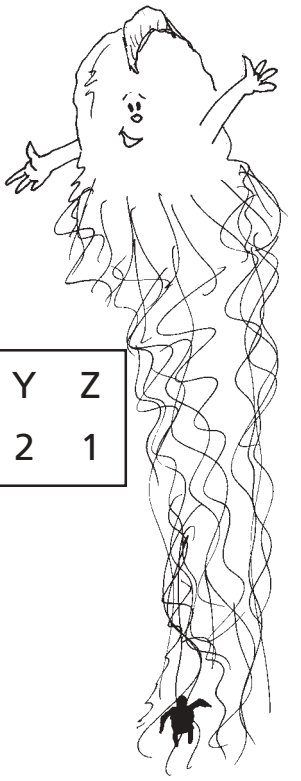
To track satellite tagged sea turtles go to www.cccturtle.org!

Can you tell which type of tag - external, internal, or satellite transmitter - each turtle has been tagged with? Remember, you can't see internal tags without a scanner.



Sea turtles have been on Earth for over 100 million years, much longer than humans. It is important that we do everything we can to help protect these magnificent creatures and their habitat.

Crack the code and learn how YOU can help sea turtles survive.



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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Sea turtles come in many shapes and sizes. Here is your chance to DESIGN YOUR OWN SEA TURTLE!



Sea Turtle Adventures Glossary

Camouflage – When an animal protects itself by blending in with its environment. Camouflage is like a natural disguise.

Carapace – The top half of a turtle's shell.

Clutch – Eggs laid together in a nest.

Disorient or Disorientation – When sea turtles (adults or hatchlings) are drawn away from the ocean by man-made lights shining on or near the beach.

Egg chamber – A hole dug in the sand where a female sea turtle lays her eggs.

Emerge – When hatchlings break away from their egg shells and dig out from of their nest. Hatchlings usually emerge in the cool hours of the night.

Endangered – When a species is in danger of becoming extinct, which means the last of the species may die. Endangered animals are protected by the United States Government.

External – Found on the outside of the body.

Green sea turtle – An endangered sea turtle named for the layer of green body fat under its shell.

Hatchling – Young turtles that have just broken out of their egg shells.

Hawksbill sea turtle – An endangered sea turtle named for its hooked beak, and hunted for its beautiful rare shell.

Incubate – The time a sea turtle spends growing while in the egg.

Internal – Located inside the body.

Invertebrate – An animal that does not have a backbone.

Kemp's ridley sea turtle – The smallest and most rare of all sea turtles. (Endangered)

Leatherback sea turtle – The largest species of sea turtle, named for the leathery skin covering its shell. (Endangered)

Loggerhead sea turtle – A threatened sea turtle, name for its large head and powerful jaws.

Mangrove island – A cluster of mangrove trees with water on all sides. Mangroves are special trees whose roots reach out of the sand, into the water and air. Mangrove islands are excellent habitat for small turtles, birds, and many other animals.

Migrate – To travel from one area to another, in search of habitat or a mate.

Predator – An animal that hunts and eats another animal for food.

Plastron – The bottom half of a turtle's shell.

Reef – An underwater group of rocks and living creatures (coral) that grow together to provide habitat for sea turtles, fish, and many other animals.

Satellite transmitter – A small box that researchers place on a sea turtles shell that sends signals to a satellite in space, which tells the researchers where the turtle is, where it is going, and even how fast it is swimming.

Scutes – The bony plates that make up a turtle's shell.

Sea grass bed – An area of grass growing underwater. The sea grass beds may not be as colorful as reefs, but they are a good source of food and habitat for sea turtles, birds and other sea life.

Species – A group of animals that look alike, mate with one another, and use the same type of habitat.

Tagging – When researchers put a tag or make a mark on a sea turtle so they can track the turtle and learn about where and how it lives.

Threatened – In danger of becoming endangered, and may be at risk of becoming extinct in the future. Threatened animals are protected by the United States Government.