



EDUCATOR'S RESOURCE GUIDE

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WWF's Wild Classroom connects educators and parents with the tools and resources they need to help kids explore and understand the world around them. Visit <u>wildclassroom.org</u> to choose from a growing library of animal- and nature-related teacher's guides, fact sheets, and activity plans that you can use to enhance your science, writing, art, and other lessons.

Together we can inspire the next generation to build a future where people and nature thrive!



Sea Turtle Fun Facts

- Sea turtles are reptiles that have existed on Earth for over 100 million years. This means their ancestors were around at the time of the dinosaurs!
- Sea turtles cannot breathe underwater and need to come to the surface for air. They can hold their breath underwater for as long as 4–7 hours if they are resting or sleeping.
- Sea turtles are the only reptile to travel extensively. Some migrate thousands of miles across entire oceans between feeding and nesting grounds.
- Male sea turtles typically never leave the ocean. Females come ashore to lay their eggs—usually on the exact same beaches where they were born!
- During sea turtle nesting season, a female can lay up to 180 eggs at a time, as often as six times!
- While sea turtles mostly live in shallow waters, they are known to dive to deeper depths in search of food, cooler temperatures, or protection from predators. Leatherback sea turtles can dive 4,035 feet deep—almost a mile!
- Depending on the species, a sea turtle's diet can consist of seagrasses, jellyfish, sponges, sea urchins, sea anemones, mollusks, or crabs and other crustaceans.
- Green sea turtles are named for the greenish color of their cartilage and fat—not their shells! On the other hand, the olive ridley turtle is named for the olive color of its shell.
- Loggerhead turtles carry colonies of small plants and animals on their shells. As many as 100 species of animals and plants have been recorded living on a single loggerhead.
- Hawksbill sea turtles are named for their narrow, pointed beaks, which they use to eat sponges and sea anemones from coral reefs.
- Sea turtles typically live up to 50 years or more. Most marine turtles take decades to mature to adulthood—between 20 and 30 years.



Sea Turtle Q&A

What is a sea turtle's extinction risk?

Different species of sea turtles have varying extinction risks: leatherback, olive ridley, and loggerhead sea turtles are listed as vulnerable; green sea turtles are endangered; hawksbill and Kemp's ridley sea turtles are critically endangered; and flatback sea turtles are data deficient (meaning there is not enough information to determine their conservation status).

How many sea turtles are in the wild?

Because males never return to shore, it is difficult to keep track of population numbers of sea turtle species. Some researchers are using satellite tags to more accurately monitor sea turtle populations and their swim patterns.

Where do sea turtles live?

Sea turtles can be found in most of the world's oceans, apart from the cold polar seas. They spend their lives mainly in the shallow, sunlit waters around continental shelves (underwater land masses that extend out from the world's continents).

What is a sea turtle's weight?

The two smallest species of sea turtle, the Kemp's ridley and the olive ridley, can weigh as little as 75 pounds. The largest, the leatherback, can weigh up to 1,500 pounds.

How big is a sea turtle?

2-6 feet long

How many species of sea turtles are there?

There are seven species of sea turtles: green, hawksbill, loggerhead, leatherback, olive ridley, Kemp's ridley, and flatback.

How do sea turtles raise their young?

To lay their eggs, female sea turtles return to the same beaches where they were born. Once she completes the nest and lays her eggs, the female sea turtle returns to the ocean. The hatchlings are left to fend for themselves and must locate and make their way to the water on their own.



Why Sea Turtles Matter

They are a fundamental link in marine ecosystems.

Humans rely on oceans for important natural resources and for their livelihoods. Oceans supply fish and other seafood that feeds billions of people. They also provide seaweed and marine plants used to manufacture products, chemicals, energy, and construction materials. Sea turtles, as key players in the marine ecosystem, help maintain the health and population of the fish and plant resources that people need. Green turtles graze on seagrasses and algae, which maintains seagrass beds and makes them more productive (much like mowing the lawn to keep it healthy). Seagrass beds function as nurseries for fish, shrimp, lobsters, and other sea life. Leatherback turtles consume large numbers of jellyfish, which helps keep their populations in check.

They provide a vital source of income for coastal communities.

Sea turtles have become increasingly important as tourist attractions, providing employment for people living in communities surrounding many ocean ecosystems. These sustainable livelihoods help ensure that local people no longer need to rely on turtle products for income.

They are culturally significant in communities around the world.

Being one of the longest-enduring animals on earth, sea turtles have been considered symbols of wisdom, strength, and longevity in many cultures. For example, according to Hindu mythology, the India deity Vishnu was reincarnated as "Kachhapa," a turtle that holds the burden of the world on its back. The Hawaiian word "honu," or green sea turtle, represents good luck and long life.





The Threats Sea Turtles Face

Sea turtles journey between land and sea and swim thousands of ocean miles during their long lifetimes, exposing them to countless threats—both natural and those caused by humans. As a result, as few as one in 1,000 sea turtles will survive to adulthood.

Irresponsible fishing practices

Hundreds of thousands of sea turtles are accidently caught by fishing gear every year. They often get trapped in fishing nets, snagged on longline fishing hooks, and tangled in lines and discarded fishing gear. Once they're caught, it is difficult for sea turtles to reach the surface to breathe, and many drown.

Illegal trade and consumption

Tens of thousands of sea turtles and their eggs are lost every year because they are illegally or irresponsibly harvested for food and income. Turtle shells are traded and used to make products and souvenirs for sale. Some people also use turtles for medicine or for religious ceremonies.

Habitat loss

Uncontrolled coastal development, vehicle traffic on beaches, and other human activities have destroyed or disturbed turtle nesting beaches around the world. Turtle feeding grounds, such as coral reefs and seagrass beds, are damaged by activities onshore, including the clearing of land and agriculture, which can cause harmful waste to enter the water.

Pollution

Trash in the world's oceans comes from many sources, including garbage that washes off streets and waste from landfills that blows into streams leading into the ocean. We produce so much trash that within the next decade, there could be a pound of plastic for every three pounds of fish in the ocean. Once in the ocean, this debris can travel the currents for years, accumulating in large patches and washing up on beaches.

Climate change

Warmer oceans are driving stronger storms and bleaching coral reefs, which are important feeding grounds for sea turtles. Rising sea levels can destroy critical nesting beaches and damage sea turtle nests. Climate change also impacts the gender of sea turtles: Warmer nests produce female hatchlings, and cooler nests produce males. Rising temperatures due to the effects of climate change could result in fewer males, which would upset the gender balance that is critical for reproduction.



How WWF Is Helping Sea Turtles and the Oceans Where They Live

Environmental organizations like WWF are dedicated to protecting sea turtles and increasing their population numbers, as well as safeguarding the places where they nest and live.

Promoting sustainable fishing and reducing bycatch

WWF is working to double the number of responsible fisheries around the world by carefully tracing seafood entering the US and monitoring fishing practices to prevent overfishing and illegal fishing. We are also helping reduce accidental capture (bycatch) of sea turtles by encouraging fisheries to switch to more turtle-friendly nets (for example, ones equipped with lights and escape hatches) and to use special fishing hooks that are more difficult for turtles to swallow.

Protecting marine habitats

Wetlands, seagrass beds, mangroves, and coral reefs protect our coastlines from weathering and erosion, and provide essential protection and feeding grounds for many marine animals, including sea turtles. WWF works around the world to establish Marine Protected Areas, ensuring sea turtles and other marine life have a safe place to nest, feed, and migrate freely. We support local turtle conservationists in many parts of the world to monitor and protect turtle nests, as well as to help establish eco-friendly tourism opportunities.

Minimizing climate change impacts

Our oceans absorb most of the environmental warming and carbon pollution occurring today—even more than the atmosphere. WWF studies how sea turtles are being affected by climate change and helps determine the best ways to reduce their vulnerability to changing environmental conditions. We work with communities around the world to monitor and protect nesting beaches, helping turtles become more resilient to the future impacts of climate change.

Addressing overharvesting and illegal trade

Despite an international ban on trade in all sea turtle species, illegal trafficking in turtle parts continues. WWF works through TRAFFIC, the wildlife trade monitoring network, to stop the illegal trade of turtle meat, eggs, and shells. We train and equip local rangers to patrol turtle nesting beaches and protect against poaching. We also work with local communities to reduce turtle harvesting and egg collection. Because trade in turtles is often driven by a lack of economic choices, we help develop alternative livelihoods, like ecotourism, so that local people are no longer dependent on turtle products for income.



What Kids Can Do

WWF works to protect sea turtles all around the world, but kids can help protect them right at home! Here are some things kids can do to help save sea turtles and other animals.

Watch your trash

Be aware of how you are disposing your trash. Don't throw litter anywhere except proper waste containers. When finished using a plastic product, you should always attempt to either recycle it or dispose of it properly. Bring reusable shopping bags when you go to the store to cut down on the number of plastic bags. Litter on the ground or beach is likely to get washed into the water or picked up by the wind and become marine debris, which sea turtles can get mangled in or mistake for food.

Purchase sustainable seafood



Next time you go grocery shopping with your family, make sure to buy seafood with the MSC (Marine Stewardship Council) logo on it, certifying that it was produced using responsible fishing methods that minimize accidental catch.

Help with nesting beaches

When you leave the beach, knock down sand castles, fill holes, and remove everything you brought with you, including gear, food, and trash. Leveling the sand makes it easier for sea turtle hatchlings to successfully navigate their way to the ocean. Also, make sure to turn off lights (from cars, buildings, etc.) near nesting beaches. Artificial light may disorient hatchlings as they make the journey from their nests to the sea.

Be aware of the illegal wildlife trade

Poaching and the illegal wildlife trade are major threats to the future of sea turtles and other endangered wildlife across the world. Never buy any products or souvenirs that come from endangered animals like sea turtles, including shells, skins, eggs, jewelry, and hairbrushes or combs. Wildlife trade has the potential to be very damaging to species' survival and their delicate ecosystems.

Spread the word

Kids can talk to their parents and friends about what they have learned about sea turtles and ask them to do the things on this list, too!

Start a fundraiser to help sea turtles and nature

By creating a fundraiser with WWF's Panda Nation, you're empowering your students to protect the wildlife and wild places they've been studying. It's a great opportunity to teach about the importance of philanthropy and the difference we can make when we work together. Get started at <u>www.pandanation.org</u>.



More Sea Turtle Teaching Tools

Sea turtle fill-in-the blank word puzzle

Teach your students the educational content from the guide with a fun word puzzle.

Sea turtle learning activities

Within the Sea Turtle Toolkit, you'll find six fun, engaging activities designed to help students learn about sea turtles and their habitat:

Turtles on Vacation—Social Studies

Students utilize their research skills to discover more about areas of the world that rely on sea turtles, and then create travel brochures advertising ecotourism opportunities.

Be Careful What You Fish For—Science

Students perform the steps of the scientific method while participating in a fun activity that shows how bycatch affects marine life and challenges them to brainstorm solutions.

The Case of the Missing Sea Turtle—Science

Through sequencing, students become junior investigators tasked with solving a mystery by placing clues of climate change in order.

A Need for the Seas—Language Arts

This persuasive writing exercise allows students to gain a sense of empowerment by composing a letter that addresses the threats sea turtles and oceans face.

Only Jellies in the Belly—Arts Education

After learning about ocean pollution, students will embrace their artistic skills to create a jellyfish out of plastic, so that they can visualize how sea turtles often mistake trash for food.

How Low Can They Go?—Physical Education

This sea turtle-themed twist on a classic game allows students to understand the various depth zones of the ocean and the adaptations marine animals must possess in order to survive there.

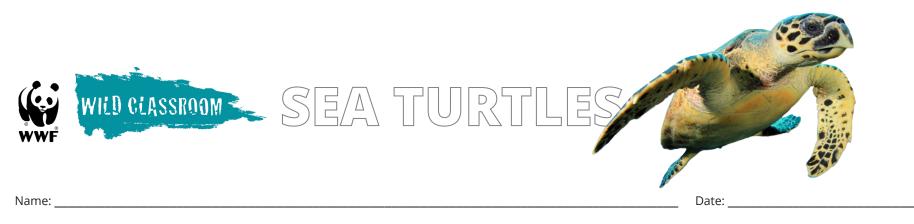
Sea turtle poster

Create an inviting learning space with <u>free downloadable posters</u> of sea turtles (along with fun facts).

WWF Together app

For more fun, interactive tools and information about sea turtles and other wildlife, download the <u>WWF Together app</u>.

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SEA TURTLE Fill-in-the-Blank

Complete the puzzle with words related to the sea turtle. Use your sea turtle fact sheet to help you. P_____ Sea turtles are _____ that have existed on Earth for over 100 million years. 1. 2. Sea turtles can hold their _____ for several hours. R 3. Sea turtles have been around since the time of the _____. 0 т_____ Green sea turtles are named for the color of their _____ and fat. 4. Sea turtles have been known to _____ deep into the ocean. 5. E Sea turtles cannot ______ their head and legs. 6. С 7. Very few sea turtle _____ survive to adulthood. т _____ 8. There are ______ species of sea turtle. S 9. _____ sea turtles almost never leave the ocean. 10. Females lay their eggs on the _____ beach where they were born. 11. _____ from roads and buildings disorients hatchlings. 12. The gender of a sea turtle can be affected by _____. 13. Sea turtles can _____ for thousands of miles. R 14. The largest species of sea turtle is the _____. T_____ 15. You can find sea turtles in most oceans except cold _____ seas. L ____ 16. A favorite food of sea turtles, it commonly gets mistaken for plastic bags. E ____ ___ ___ ___ ___ ___ 17. Females come ashore to lay their _____.



SEA TURTLE Fill-in-the-Blank | ANSWER KEY

Complete the puzzle with words related to the sea turtle. Use your sea turtle fact sheet to help you.

1. Sea turtles are that have existed on Earth for over 100 million years R P I L E	<u>S</u>
2. Sea turtles can hold their for several hours. B R E A T H	
3. Sea turtles have been around since the time of the D I N O S A U R	S
4. Green sea turtles are named for the color of their and fat. C A R T I L A G	E
5. Sea turtles have been known to deep into the ocean D V E	
6. Sea turtles cannot their head and legs RETRA_CT	
7. Very few sea turtle survive to adulthood. H A T C H L I	<u>N G S</u>
8. There are species of sea turtle. SEVEN	
9 sea turtles almost never leave the ocean A E	
10. Females lay their eggs on the beach where they were born S_A_M_E	
11 from roads and buildings disorients hatchlings L GH T	
12. The gender of a sea turtle can be affected by T E M P U R A T U R E	
13. Sea turtles can for thousands of miles MIGRATE	
14. The largest species of sea turtle is the	A C K
15. You can find sea turtles in most oceans except cold seas. PO_L_A_R_	
16. A favorite food of sea turtles, it commonly gets mistaken for plastic bags.	<u>I S H</u>
17. Females come ashore to lay their EGGS	