

An unforgettable journey
she just may remember.

Disney · PIXAR
**FINDING
DORY**
JUNE 17

IN 3D AND REAL D 3D

ACTIVITY PACKET

Created in partnership with the DisneyNature Educational Team



Disney • PIXAR FINDING DORY



Disney•Pixar's "Finding Dory" welcomes back to the big screen everyone's favorite forgetful blue tang Dory (voice of Ellen DeGeneres), who's living happily in the reef with Marlin (voice of Albert Brooks) and Nemo (voice of Hayden Rolence). When Dory suddenly remembers that she has a family out there who may be looking for her, the trio takes off on a life-changing adventure across the ocean to California's prestigious Marine Life Institute (MLI), a rehabilitation center and aquarium. In an effort to find her mom (voice of Diane Keaton) and dad (voice of Eugene Levy), Dory enlists the help of three of the MLI's most intriguing residents: Hank (voice of Ed O'Neill), a cantankerous octopus who frequently gives employees the slip; Bailey (voice of Ty Burrell), a beluga whale who is

convinced his biological sonar skills are on the fritz; and Destiny (voice of Kaitlin Olson), a nearsighted whale shark. Deftly navigating the complex inner workings of the MLI, Dory and her friends discover the magic within their flaws, friendships and family.

Directed by Andrew Stanton ("Finding Nemo," "WALL•E"), co-directed by Angus MacLane ("Toy Story OF TERROR!"), and produced by Lindsey Collins (co-producer "WALL•E"), Disney•Pixar's "Finding Dory" swims into theaters June 17, 2016. For more information, like us on Facebook, <https://www.facebook.com/PixarFindingDory>, and follow us on Twitter, <https://twitter.com/findingdory> and Instagram, <https://instagram.com/DisneyPixar>.



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ACKNOWLEDGMENTS

The Walt Disney Studios would like to take this opportunity to thank the amazing teams that came together to develop the **Finding Dory** Activity Packet. It was created with great care, collaboration and the talent and the hard work of many incredible individuals.

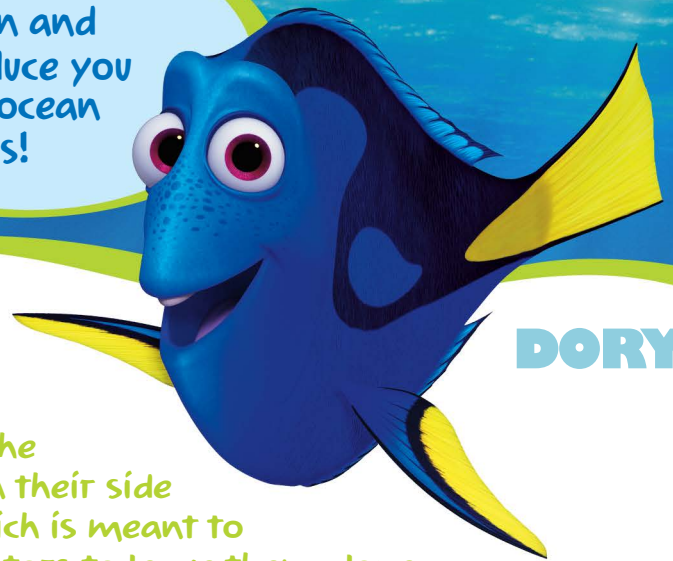
A special thank you to Dr. Mark Penning and his team at Disney's Animal Kingdom and The Seas with Nemo & Friends: Animals, Science & Environment for sharing all of their knowledge and insuring the accuracy of the information. These materials would not have happened without the diligence and dedication of Allyson Atkins and Kyle Huettner who worked side-by-side with the scientists and educators to help create these compelling lessons and activities. A big thank you to Hannah O'Malley for writing the marvelous glossary, and Rachel Woodworth for her outstanding work on the activity sheets. Thanks to Dr. Andy Stamper, Dr. Anne Savage, Jane Davis, Sara Green, Amber Thomas, Larry Boles and Wendi Fellner for advising and reviewing all the materials. Thank you also to Dr. Beth Stevens, Dr. Jackie Ogden, Kim Sams and Claire Martin for their leadership. The interdisciplinary and holistic approach to this guide could not have happened without the special talents of Dr. Linda Labbo, Professor Emeritus at The University of Georgia. Lastly, thank you to Paul Baribault and Peggie Birkenhagen at The Walt Disney Studios for their unwavering support of this project.

Dr. Lizabeth Fogel
Director of Education, The Walt Disney Studios

Disney.com/FindingDory

Content provided by education experts at Disney's Animals, Science and Environment

Jump in and
I'll introduce you
to my ocean
pals!



DORY

Regal Blue Tang

Blue tangs have the ability to lie on their side to "play dead" which is meant to convince predators to leave them alone.



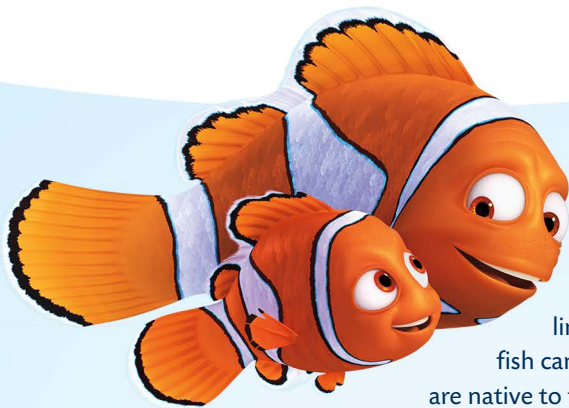
Size: 10 – 12 in (25 – 30 cm)

Diet: Plankton & algae

Predators: Tuna, jack & lion fish

Blue tang fish, like Dory, have brilliant blue colored bodies, yellow fins and a bright yellow tail. These tropical fish can live up to 30 years or longer near coral reefs in the Pacific Ocean. Blue tangs serve an important role in coral reef habitats because they eat plankton and algae off of coral and sponges. This is beneficial for the entire ecosystem because too much algae prevents corals and sponges from growing. Blue tangs in turn benefit from coral by using the coral branches as a safe hiding place

from predators. They stick together in large groups called schools, which help keep them safe from predator fish such as tunas, jacks and lionfish. Blue tangs have a few other impressive tactics to protect themselves from predators including a bright coloration to warn other animals of the sharp spines at the base of the tail that they use to defend themselves. Blue tangs can change color to a darker blue to warn others of danger!



**NEMO &
MARLIN**

Clownfish

Clownfish have an orange body with three white stripes and black lines on each fin. These little fish can live to be 6 – 10 years old and are native to the Red Sea, and the Indian and Pacific Oceans. Clownfish feed on small things like zooplankton and detritus. Zooplankton are tiny animals, some of which are almost microscopic, and detritus are tiny particles of broken down plants and animals. Clownfish live in small groups in anemones which are a type of animal. The anemones have tentacles that can protect the clownfish by stinging other animals. Luckily, clownfish have a protective mucus

clownfish have a mucus coating on their skin that helps protect them from an anemone's sting.

coating on their skin and are able to slowly acclimate to the anemone and become desensitized to the sting. Clownfish keep the anemones clean by eating any accumulated detritus or parasites that fall within it. The relationship between clownfish and anemones is called mutualistic which means that both the anemone and the clownfish benefit from the interactions. Female clownfish can lay between 100 and 1,000 eggs at a time in their nest made on hard surfaces near the anemone, and it is the male's role to keep the nest clean and protect the eggs.

Size: 2 – 4 in (5 – 10 cm)

Diet: Zooplankton & detritus

Predators: Large fish, lionfish & sharks





Octopus

● An octopus's suckers have chemoreceptors that allow them to taste items before they reach their mouth!

Octopuses are invertebrates, meaning they don't have a backbone! Octopuses have big heads, two eyes and 8 tentacles. Their tentacles are very strong, can bend in any direction and are equipped with suction cups to help them catch food. There are many different species of octopus that come in lots of different sizes, colors and eat a variety of foods. Some species remain small and only grow to be about 1 – 2 inches (3 – 5 cm) in length whereas the giant Pacific octopus can grow to be on average 15 feet (4.6 m) long. Octopuses can be found in the deep ocean and in or near coral reef habitat. Octopuses are experts when it comes to hiding from predators. They are well known for their ability to expel ink to distract a threat while they make a quick getaway. Octopuses are also fantastic at camouflage and can change their color and texture to blend in with their surroundings in a fraction of a second! Since octopuses have no bones they can also squeeze into hard to reach places. The only rigid part of an octopus' body is its beak, or mouthpart; if its beak can fit through a small place, the whole octopus can fit!

Size: Varies by species

Diet: Crabs, shrimp, lobster, fish & zooplankton

Predators: Eels, dolphins & sharks



HANK



DESTINY

Whale Shark

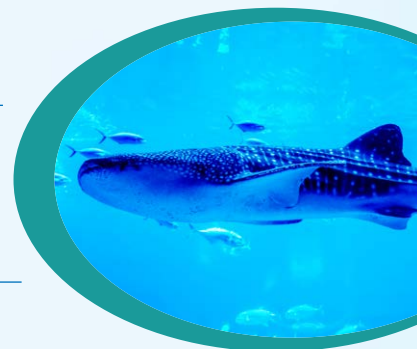
Whale sharks are the largest known living fish and like all sharks, have skeletons made of cartilage instead of bone. They have dark grey, brown or blue skin with light colored spots and stripes on their body that are unique to each individual, kind of like human fingerprints! These huge sharks have flattened broad heads with mouths that can measure up to 5 feet (1.5 m) wide depending on the whale shark's size and contain up to 300 rows of tiny replaceable teeth. Their wide mouth and filtration screens in their large gill slits make it easy for them to skim for food. To capture their food, they swim at a constant speed with their mouth wide open. Whale sharks are circumtropical, preferring to live in warm water marine climates, and are known to migrate every spring from tropical seas to the west coast of Australia. The presence of whale sharks usually means there is an abundance of plankton which can indicate an area of nutrient rich water. There is little information about the lifespan and reproduction of these giant fish, but it is estimated that they can live up to 100 years and possibly longer.

● Whale sharks have small tooth-like scales called dermal denticles all over their bodies that help them swim faster and more efficiently.

Size: 18 – 32 ft (5.5 – 10 m)
41,000 lbs (18,600 kg)

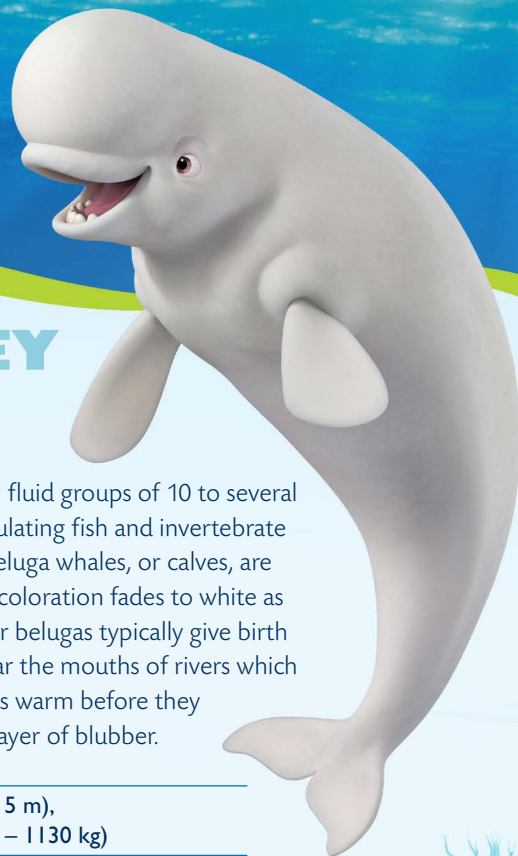
Diet: Plankton, small fish, krill, jellyfish & squid

Predators: Sharks & orcas



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Beluga Whale

BAILEY

Beluga whales are known for their entirely white bodies and their bird-like chirping, whistling and squawking vocalizations. They have melon shaped heads made of extra fat which help them focus the sounds they make in their heads for echolocation. Approximately 40% of their weight is thought to consist of fat, or blubber, which helps keep them warm in the arctic and sub-arctic waters they call home. Belugas lack a dorsal fin on their backs and have a small dorsal ridge instead. Having a relatively flat back helps them swim and maneuver under ice sheets. Belugas also have a flexible neck, which allows them to turn their heads independently of their bodies. These

playful whales live in fluid groups of 10 to several dozen, naturally regulating fish and invertebrate populations. Baby beluga whales, or calves, are born grey and their coloration fades to white as they mature. Mother belugas typically give birth in warmer water near the mouths of rivers which helps keep the calves warm before they develop their thick layer of blubber.

Size: 10 – 16 ft (3 – 5 m),
1100 – 2500 lbs (500 – 1130 kg)

Diet: Salmon, flounder, crab, shrimp & squid

Predators: Polar bears & orcas

● Belugas are nicknamed “sea canaries” because of the frequent bird-like vocalizations they make.

Sea Lion

**FLUKE &
RUDDER**

Sea lions live along coastlines, island edges and sometimes near the mouths of rivers in the Pacific Ocean. These large, brown marine mammals typically live between 8 to 12 years and have a thick layer of blubber to help keep them warm in the cold ocean water. Males are very territorial and distinguishable from females because of their large size and more robust features. Groups will typically form with a few males among many females and they are known to seasonally migrate long distances. Sea lions are excellent swimmers and have the ability to close their ears and nostrils while they swim to prevent water from getting in their

ears or noses! The sea lion’s sleek body allows them to swim in short bursts at speeds of up to 20 miles (32 km) per hour and dive to depths of up to 900 feet (274 m). Since sea lions are mammals they do need to visit the surface of the water to breathe air; however, some individuals can hold their breath for up to 20 minutes!

Size: 6 – 7 ft (1.8 – 2.1 m), 200 – 800 lbs
(90 – 362 kg) varies between male and female

Diet: Fish, squid, octopus & eels

Predators: Orcas & sharks

● Sea lions cannot pant or sweat, so they often rely on the cold ocean water to help them cool down!





**MR.
RAY**

Sea Otter

Sea otters are the only members of the weasel family that spend most of their life in the water. These brown, furry mammals live in cold water climates along the coast of North America and Asia in the Pacific Ocean. Although they spend most of their time in cold ocean water they do not have blubber to keep them warm. Instead, sea otters have two layers of thick fur. Their innermost layer of fur helps them retain their body heat and traps in air to help them effortlessly float, whereas their outermost layer of fur is made up of longer hair which prevents water from seeping into their undercoat. Their flattened tail, webbed hind feet and sleek bodies make them impeccable swimmers and divers. Sea otters can hold their breath underwater up to 6 minutes and they are capable of closing their ears and nose while diving. To crack open hard shellfish, otters will float on their backs to use both front paws to hit a shell with a rock until it breaks. They even have loose skin under their forearms that acts kind of like pockets to carry their special shell breaking rocks!

Size: 4 ft (1.2 m), 65 lbs (29 kg)

Diet: Sea urchins, abalone, crabs, fish, octopus, mussels & clams

Predators: Orcas & sharks



Sea otters have the densest fur of any mammal which they keep clean by biting, scratching, and rubbing up against abrasive surfaces.



Spotted Eagle Ray

Spotted eagle rays are strong swimmers with the incredible ability to jump completely out of the water!

Spotted eagle rays can be found almost anywhere in the world near coral reef habitats in warm tropical waters. These graceful sea creatures have a flat, black body covered with white spots and a bright white underside. Their coloration is a type of camouflage called countershading, which helps keep them hidden from their predators. When a predator looks down on a spotted eagle ray, the dark coloration of their back helps them to blend in with the dark sea floor and when a predator looks up toward a ray's white underside it blends in with the sunlight shining down from the water's surface. Spotted eagle rays have venomous spines near the base of their tail that they can use to protect themselves. These rays typically live between 20 and 30 years and females usually only have a few baby rays, or pups, at a time. They have two flat tooth plates on the top and bottom of their mouths to help crack open hard shells, and their predatory behavior helps keep the populations of their prey balanced in their shared ocean ecosystem.

Size: 16.5 ft long (5 m), 507 lbs (230 kg)

Diet: Clams, shrimp, oysters, sea urchins & fish

Predators: Sharks



Common Loon

Common loons are migratory birds which breed in forest lakes and large ponds across North America, Greenland and Iceland. These unique birds spend their winters along North America's Pacific and Atlantic coasts, as well as in Europe and Iceland and they are known for their bright red eyes. A loon's body shape is well balanced for swimming; however, this does make it more

difficult for them to walk on land. These graceful swimmers and awkward walkers are actually named for their clumsy appearance while walking on land. Some loon species have black heads and necks, while other have stripes or spots along their backs. Loons make very distinct cries that have been compared to that of a yodel. These eerie and silly calls are thought to be made in an effort to protect their territory, and they can be heard from very great distances.



Size: 32 in (81 cm), 9 lbs (4 kg)

Diet: Fish & invertebrates

Predators: Eagles, fish, raccoons, weasels & otters

BECKY



Loons can dive more than 200 feet (61 m) below the surface of the ocean in search of food.

Hermit Crab

Hermit crabs are small creatures that can be found living on the sea floor in oceans all around the world. In fact, there are more than 1,000 different species of hermit crabs. Hermit crabs have ten legs, which include two large claws. They also have two antennae to help them feel and two long eyestalks with their eyes attached. They have a soft body with no backbone and they are not able to make their own shell, so they take shells left behind from other animals for their shelter. As they grow they need to transfer to a more fitting shell, so there is usually competition between hermit crabs when a new shell becomes available. A hermit crab's shell is also important for protection as well. When a hermit crab

spots a predator, it will curl up in their shell for safety. Since hermit crabs are social creatures they can be found living in groups of 100 or more and observers would have more luck searching for them scuttling around at night since they are nocturnal.

Size: 3 – 4 in (7.6 – 10.1 cm), 7 – 8 oz (200 – 500 g)

Diet: Plankton, worms & detritus

Predators: Fish, octopus & sea turtles

The body of a hermit crab is a spiral shape. This helps them fit into a new shell.



Giant Clam

Once a giant clam stations itself to a spot on a reef, it will stay in that location throughout its lifetime.

Giant clams live on coral reefs or in tide pools in the Indian and Pacific Oceans and attach themselves onto a hard surface, like rock or coral, at a young age. They will stay in one place their entire lives which can sometimes last over 100 years! Different types of clams are present in aquatic ecosystems all over the world and live primarily in shallow waters on the bottom of the habitat, but can also be found swimming! Clams are invertebrates, meaning they have no true backbone. Their fleshy bodies are protected by two shells and held together by a hinge, which is important for protection. Clams use the ocean floor as protection by using their muscular foot, which protrudes itself from the front of the clam's shell, to burrow into the sand. Common clams can be found in both saltwater and freshwater ecosystems and are much smaller than their giant relatives with some only growing to be 0.0004 inches (0.1 mm) in length. Since clams are filter feeders, they filter tiny organism out of the water to eat, which provides food for the clam, but it is also helpful in keeping their aquatic habitat clean!

Size: 4 ft (1.2 m), 500 lbs (228 kg)

Diet: Nutrients from algae

Predators: Eels, snails, sea stars & fish



Squid

Squid are deep-sea dwellers and can be found in temperate oceans all over the world. They are part of the cephalopod family, which also includes cuttlefish and octopus. These incredible ocean creatures have eight arms and two longer feeding tentacles that are used to bring food right to their mouths. To aid in catching prey, squid have hooks embedded into their suckers along their tentacles and a hard, pointed beak that acts as their jaw. Squid can change their skin color when necessary to camouflage in order to catch prey or protect themselves from predators. Like their cousin the octopus, squid produce ink that they can use to evade predators and other animals when needed to escape danger. Colossal squids, the largest invertebrates on Earth, can grow between 39 and 46 feet long (12-14 m) and weigh up to 1650 pounds (750kg). Although quite large, giant squids are an elusive species and are rarely seen due to their deep water habitat.

Size: Varies by species

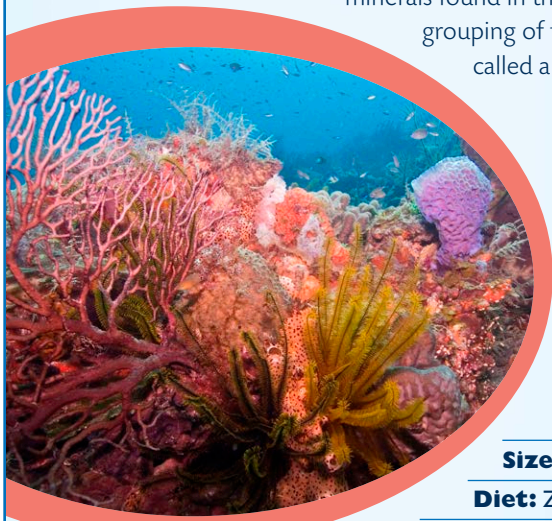
Diet: Fish, crab & smaller squid

Predators: Large fish, sharks & whales

A squid's mouth is actually shaped like a beak you would find on a bird.

Corals

Corals typically live in warm, shallow ocean waters and come in many different shapes, sizes, colors and textures! The way a particular coral looks depends on where it lives. For example, corals that live in more turbulent regions are more stocky and sturdy, while corals that live in calm waters appear to be more thin and fragile. Although corals might resemble plants, they are actually animals that are related to jellyfish! Corals are made of polyps which are different from the bodies of most other animals. Some corals are just one single polyp and others are made of multiple identical polyps that form a colony. Polyps have soft tube like bodies that measure anywhere from smaller than 0.5 inches to 11 inches (1 – 30 cm) long with a mouth in the middle that is surrounded by stinging tentacles. To protect themselves, some corals build a hard skeleton around the polyps using minerals found in the water. A large grouping of these corals is called a coral reef.



Size: Varies by species

Diet: Zooplankton

Predators: Sea stars, fish & snails

🐟 Coral reefs have been growing in our oceans for millions of years!



Sea Urchins

Sea urchins are spiny invertebrates that are predominantly found around coral reefs and on ocean floors. They have no true backbone like their relatives, sea stars, sand dollars and sea cucumbers. There are many different species of sea urchins, but they all have distinct long spines coming from their body. Beneath the spines, sea urchins have a body that is rounded at the top and flat on the bottom. Sea urchins don't have eyes like we do; however, they use their entire body to see, including their spines, to feel their surroundings. Sea urchins can be many different colors including black, green, brown, purple, blue, pink or red, and they typically feed on algae, seaweed or kelp. Sea urchins move at a very slow pace; however, if they are threatened by a predator they can point their spines quickly in the direction of the threat if necessary. The lifespan of a sea urchin is variable depending on the species. For example, red sea urchins are believed to live for about 10 years, sea urchins in Southern California can live for about 50 years, whereas those found in British Columbia can live to be more than 100 years old!

Size: Varies by species

Diet: Broken or decomposing kelp & live algae

Predators: Sea otters, sea stars, eels & triggerfish

🐟 The name urchin is an old word for hedgehog.

You Can Help Protect These Animals

By learning more about the species in this glossary you are on your way towards helping protect animals in your own backyard and beyond! Knowledge creates awareness, which can lead to action. A positive attitude towards all animals can help make a conservation impact when combined with actions that benefit the world around us. Think about ways you can help these animals.

Choose Pets Wisely.

Home aquariums are a great way to learn about animals and connect with nature. Saltwater aquariums are tricky for beginners, so consider a freshwater aquarium if you are a first-time owner. When selecting a fish, pick a farm-raised friend for your aquarium and never release fish into the wild.

Reduce, Reuse, Recycle.

Reduce your consumption to achieve a smaller "footprint." Reuse items that normally are tossed into the trash and recycle everything you can. Recycling and reusing reduces waste and saves precious resources. It also keeps items like plastic bags, water bottles and balloons out of the ocean, where animals may mistake them for food.

Become an Ocean Expert.

To expand your knowledge of wildlife in the world around you, visit the ocean or your local [AZA-accredited](#) aquarium or zoo. You can also learn more about ocean animals like sharks, rays, coral reefs and sea turtles by visiting [DisneyAnimals.com](#). Don't forget to share your ocean knowledge with family and friends by celebrating World Oceans Day each year on June 8th!

Connect with Nature.

Explore the natural world around you. Take a nature walk or hike with your family and friends to learn more about wildlife in your community. Explore the beach and spend time watching wildlife near the shore. You can even participate in a beach cleanup during your next visit to the ocean!

Be Drain Smart.

Remember that all drains lead to the ocean. Keep paint, motor oil, grease, cooking oil, cleaning supplies and trash away from drains. Instead, recycle or dispose of these and other items properly.

Make Wise Conservation Choices.

When shopping, before you toss an item into your cart ask yourself, is this sustainably sourced? It is important to know where products like shells and other oceans items come from. Choosing wisely while dining out is another way you can make a difference. Make sustainable seafood choices by visiting [seafoodwatch.org](#) to find recommendations for which seafood to buy or avoid.

DISNEY CONSERVATION FUND



Throughout the oceans of the world, animals both large and small face threats to their survival including habitat destruction, pollution and unsustainable fishing practices.

The Disney Conservation Fund has assisted many of the species seen in Disney•Pixar's **Finding Dory** including coral reefs, sea turtles, sharks and rays. As part of The Walt Disney Company's Corporate Citizenship focus, the fund supports nonprofit organizations that work to Reverse the Decline of threatened wildlife through scientific research, collaboration and community engagement. The fund also works with nonprofit organizations to increase the time kids and families spend in nature to engage young people in discovering the magic of nature and inspire them to care about the planet. The Disney Conservation Fund was established in 1995 on Earth Day (April 22) and to date has supported more than 300 nonprofit organizations and more than a thousand conservation projects worldwide. Take a tour of all of these projects, present and past, by visiting the Disney Conservation Fund website at www.disney.com/conservation.

SOURCES

- Animal Diversity Web <http://animaldiversity.org/>
- Association of Zoos and Aquariums <http://www.aza.org>
- Aquarium of the Pacific <http://www.aquariumofpacific.org/onlinelearningcenter>
- BBC Earth <http://www.bbc.com/earth/uk>
- Disney Animals <http://www.disneyanimals.com>
- Disney Conservation Fund <http://disney.com/conservation>
- Encyclopaedia Britannica <http://www.britannica.com>
- Florida Museum of Natural History <http://www.flmnh.ufl.edu/fish>
- Monterey Bay Aquarium <http://www.montereybayaquarium.org/animal-guide>
- Disney•Pixar Finding Nemo 3D Mr. Ray's Ocean Explorer's Guide
- National Geographic <http://animals.nationalgeographic.com/>
- NOAA Coral Reef Conservation Program <http://coralreef.noaa.gov>
- San Diego Zoo <http://animals.sandiegozoo.org>
- Seaworld <http://seaworld.org/animal-info>
- Seattle Aquarium <http://www.seattleaquarium.org/>
- Smithsonian National Museum of Natural History <http://invertebrates.si.edu>
- World Wildlife Fund <http://www.worldwildlife.org>



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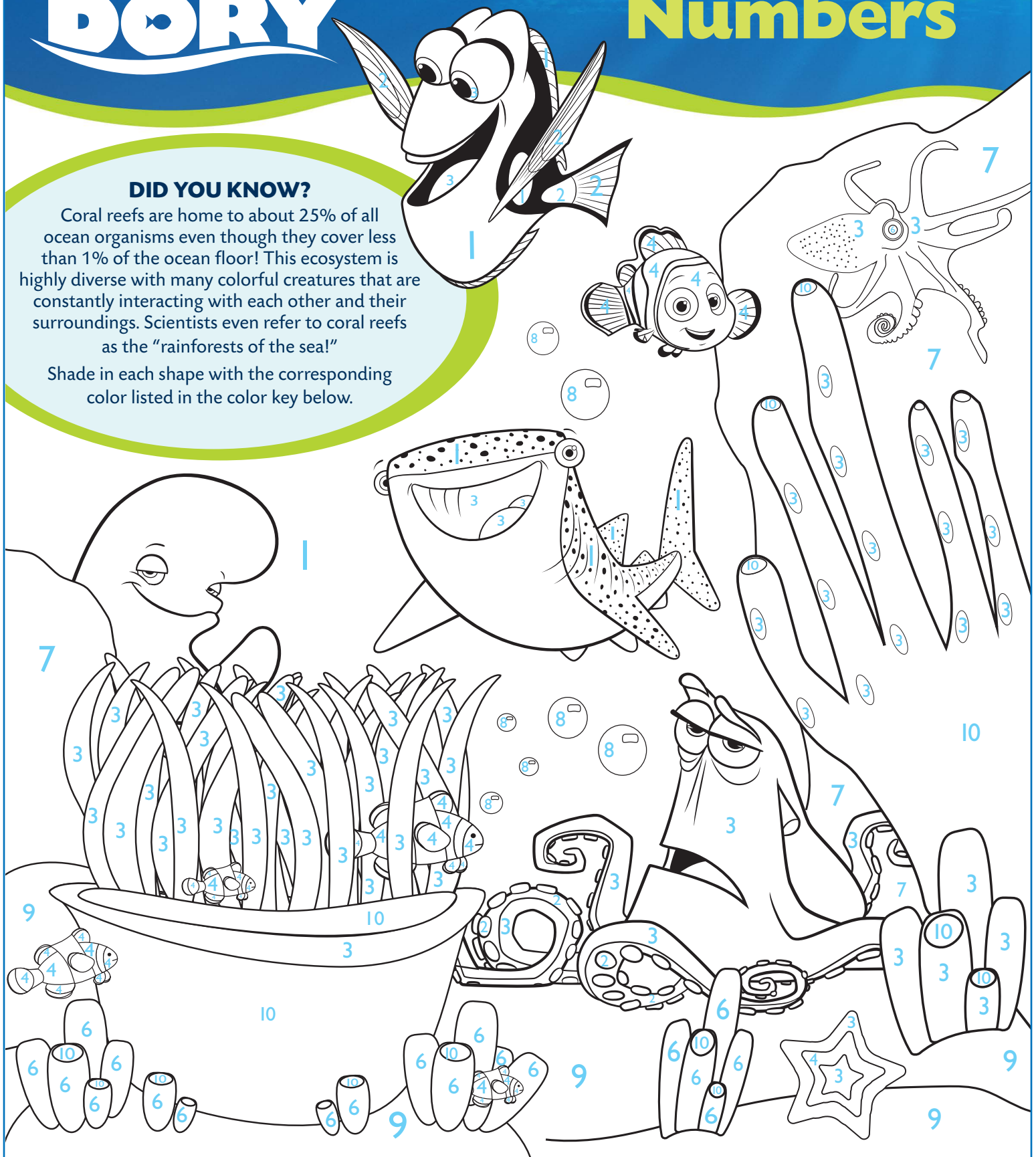
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DID YOU KNOW?

Coral reefs are home to about 25% of all ocean organisms even though they cover less than 1% of the ocean floor! This ecosystem is highly diverse with many colorful creatures that are constantly interacting with each other and their surroundings. Scientists even refer to coral reefs as the "rainforests of the sea!"

Shade in each shape with the corresponding color listed in the color key below.



1 blue	2 yellow	3 pink	4 orange	5 green	6 red	7 brown	8 light blue	9 tan	10 purple
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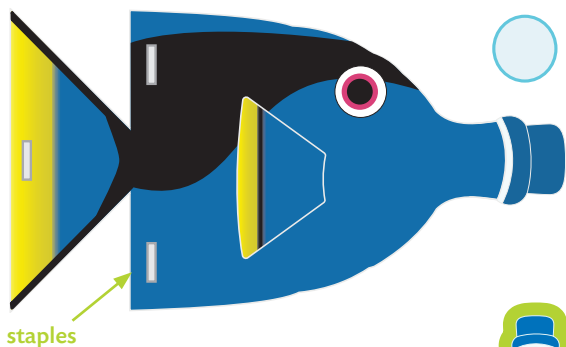


Have you ever wondered where your plastic bottle goes after you toss it?

Unfortunately, any type of plastic can be harmful to sea life, but we can make choices that prevent harm to aquatic animals. When people don't properly dispose of their trash, plastic can make its way into the ocean. You can do your part to save our ocean friends by turning your recyclable bottle into a piece of art! Give your plastic bottle new life as you create fun aquatic friends like Dory and Hank.

SUPPLIES

Plastic Bottle
Stapler
Marker
Paint & Paint Brush
8 Colored Pipe Cleaners
Scissors
Hole Punch
Craft Eyes

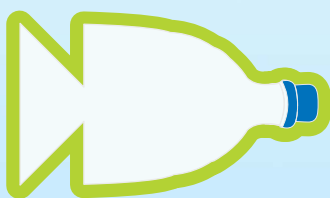
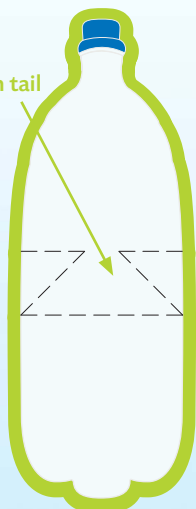


DORY

- 1 Rinse your recycled plastic bottle and remove the label.
- 2 With a marker, draw a fish tail on the middle center of the bottle, as shown to the right.
- 3 Take the cap off and set it to the side.
- 4 Cut the bottom of the bottle off, and cut along the fish tail you created.
- 5 Put the cap back on.
- 6 Paint the inside of your fish bottle.
- 7 Let it dry.
- 8 Once dry, add three staples to the end, as shown above.
- 9 Paint on or add some craft eyes and you have just created your very own eco-friendly fish!

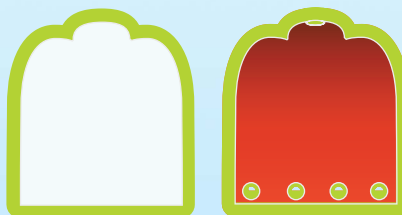
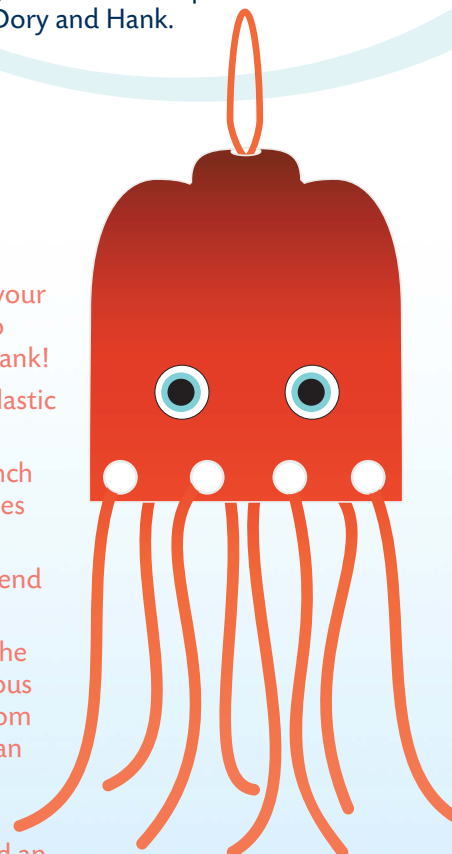


fish tail



HANK

- 1 Use the bottom half of your recycled plastic bottle to create an octopus like Hank!
- 2 Paint the inside of the plastic bottle and let it dry.
- 3 Once dry, use a hole punch to make eight small circles around the open rim.
- 4 Tie a pipe cleaner to extend from each hole.
- 5 Carefully add a hole to the center top of your octopus and tie a pipe cleaner from the center so that you can hang it up.
- 6 Paint or add some craft eyes and you just created an eco-friendly octopus to go on adventures with your fish!





Speak Like a Whale

What is Destiny saying?


Even though Destiny is a whale shark she has learned how to speak like a whale and wants to help you learn too! Help Destiny decipher the sound waves to learn more about her friend Bailey, a beluga whale, from the Marine Life Institute.

Look for the matching sound wave for each line at the bottom of the page to translate whale speak and complete the sentence.



- 1 Belugas use _____ to communicate with each other.
- 2 Belugas eat lots of _____ and _____.
- 3 Belugas typically live in _____.
- 4 Their _____ shaped _____ is made of extra fat that helps them _____.
- 5 Belugas are the _____ entirely _____.
- 6 Learn more about belugas and other _____ animals at your local _____.


invertebrates


water


melon


Arctic


AZA-accredited
aquarium or
zoo


vocalizations


only


aquatic


cold


forehead


fish


whale


echolocate


white

Seek the Sea Urchins



Why are kelp forests important?

A kelp forest is a type of marine ecosystem found off the rocky Pacific coast. This unique, rich habitat serves as shelter and a food source for thousands of fish, invertebrates and marine mammals. Sea urchins enjoy munching on the giant kelp while sea otters love to eat urchins! Without sea otters maintaining the population of sea urchins, the kelp forest would be overgrazed and the ecosystem could crash! This makes sea otters an important keystone species for kelp forests. Help the sea otter find all twelve sea urchins hiding in the kelp forest.

SEA
URCHIN



Continuing The Search

Sea otters use tools such as rocks to break open the shells of some of their harder prey items like sea urchins, crabs and mussels. Can you find the special rock that our sea otter is going to use? It is an irregular shape with a flat base and three dark spots on the top of it.



Ocean Icon Investigation

What do the pictures have in common?

For each set of icons, determine what the pictures have in common. If you need a clue to what it might be check the hint!



plants



water



sunlight



animals

1. They make up an...

NEED A HINT? This is a broad name for a place where these things interact.



melon



food



soundwaves



rocks

2. Belugas and dolphins use this to find food.

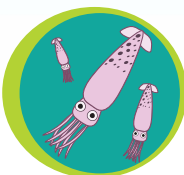
NEED A HINT? It is a sound a made by some mammals to locate something such as food.



krill



plankton



squid



small fish

3. They are the favorite foods of...

NEED A HINT? This animal is the largest living fish!



clownfish



seahorses



sea anemones



sea stars

4. These are all found living within a...

NEED A HINT? This ecosystem is sometimes called the "rainforest of the sea."



scuba diving



fishing



gardening



whale watching

5. These are all things you can do...

NEED A HINT? The fun can begin with friends and family at a local nature park or in your own backyard!

Aquatic Animal Observations

OCTOPUS

Observation Notes:

- Octopus are fantastic at camouflage and can change their color and texture to blend into their surroundings. We can have the octopus hide from other characters by disguising himself in fun shapes and patterns.
- An octopus's suckers have chemoreceptors that allow them to taste items before they reach their mouth!. We could have the character touching different surfaces and make silly facial expressions based on what it would taste like!
- What types of expressions would their face reveal? How might their facial features move?

What is animation referencing?

To create the amazing aquatic animals seen in Disney•Pixar's **Finding Dory**, animators spent months studying the animals' natural behaviors in some incredible places. Some of the most important locations for animation research are [Association of Zoos and Aquariums](#) – accredited aquariums and zoos, where animators can study a variety of species and learn from the best animal experts in the world.

Observing video, pictures or animals in action is known as animation referencing. In this activity, you will observe aquatic animals similar to a Pixar animator who is creating a new character. Visit a local AZA-accredited aquarium or zoo to observe aquatic animals like clownfish, octopus and regal blue tangs. Use your imagination and sketch your own memorable character like Nemo, Hank and Dory.

During your observation, think about the following questions:

- How does the animal move throughout its habitat?
- If the animal needed to dance, what would its movements be?
- What type of character would your animal be in a story?

These are the types of questions animators often ask themselves during a referencing session. On the left are some examples of the types of observation notes an animator would write down.

Now it's your turn! Use the space below to draw your own aquatic animal sketch and record your observation notes.

My Observation Notes:

Selecting the Right Pet Fish

All pets, including fish, require much care and attention as well as an investment of time and money. To be a responsible pet owner, you must learn about the animal and its care and make sure the source you are getting it from is reputable.

Pets should never be an impulse buy as they will be a part of your family for years to come and require a commitment to provide lifelong care.

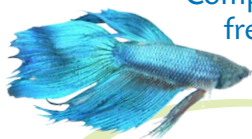
Review these guidelines to be sure you make the best pet fish choice for your family.



What fish will make the best pet for your family?

Home aquariums are a great way for kids to learn about animals and connect with nature. Make sure to choose a type of fish that best fits your lifestyle.

Compare the care requirements of freshwater vs. saltwater fish:



FRESHWATER FISH



SALTWATER FISH

WATER



COST



TIME



INVESTIGATE

Research the fish you are interested in caring for and how they interact with other fish through books, websites and [aquarium experts](#).

- Saltwater aquariums can be tricky for beginners, so consider a freshwater aquarium instead.
- Always select appropriate aquacultured* fish as a first choice for your home aquarium.
- For the well-being of your fish and other wildlife and their habitats, never release fish into the wild.
- Blue tangs, like Dory, do not make good pets so instead choose appropriate aquacultured fish.

VISIT

Go to your local [Association of Zoos and Aquariums \(AZA\)](#)-accredited aquarium or zoo to experience an up-close look at some amazing fish and other aquatic animals.

PROTECT

You can have a positive impact on the ocean and marine life, no matter where you live, since all waterways lead to the ocean. To learn more about your favorite #DisneyAnimals, go to [DisneyAnimals.com](#).

*Aquaculture is the raising of fish in managed environments to help relieve stress on wild populations.

