An unforgettable journey she just may remember.
Disney•Pixar’s “Finding Dory” welcomes back to the big screen everyone’s favourite 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 centre 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.


Further Explore the World of FINDING DORY


The guide introduces students to a variety of topics, including:

- Animal Behaviour and Natural History
- Predator/Prey Relationships
- Ocean Habitats and Ecosystems
- Migration
- Marine Careers
- Making a Positive Difference for Wildlife Worldwide

Educator’s Guide Objectives

- Increase students’ knowledge of marine animal species and their habitats through interactive and inquiry-based lessons.
- Enhance students’ viewing of Finding Dory and inspire an appreciation for the wildlife and wild places featured in the film.
- Promote life-long conservation values and STEAM-based skills through exploration and discovery.
- Empower you and your students to create positive changes for wildlife in your school, community and world.

Content provided by education experts at Disney’s Animals, Science and Environment.
ACKNOWLEDGMENTS

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Dr. Lizabeth Fogel
Director of Education, The Walt Disney Studios
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COMMON CORE LANGUAGE ARTS STANDARDS

**Reading Standards for Literature**

| Text Type and Purpose: RI3.3, RI4.3, RI5.3 | Text Type and Purpose: RI4.3, RI5.3 | Text Type and Purpose: RI4.7, RI5.7 |
| Key Ideas and Details: RI3.1, RI3.2, RI3.3, RI3.4 | Key Ideas and Details: RI4.1, RI4.2, RI5.1, RI5.2, RI5.3 | Key Ideas and Details: RI4.7, RI5.7 |

**Writing**

| Text Types and Purpose: W3.2, W4.2, W5.2 & WHST6-8.2 | Research to Build and Present Knowledge: W3.7, W4.7, W5.7 & WHST6-8.2 | Production and Distribution of Writing: W4.6, W5.6 & W6.6 |

**Speaking and Listening**

| Presentation of Knowledge and Ideas: SL3.4, SL4.4, SL5.4 & SL6.4 |

**Language Standards**

| Vocabulary Acquisition and Use: L3.6 & L4.6, L5.6 & L6.6 |

COMMON CORE MATHEMATICS STANDARDS

| Number and Operations in Base Ten | 2.NBT1 & 3.NBT1 |
| Measurement and Data | 5.MD.1, 5.MD.2, 5.MD.4 & 5.MD.5 |
| Statistics and Probability | 6.SP.4 & 6.SP.5 |
Blue tang fish, like Dory, have brilliant blue coloured 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 colouration to warn other animals of the sharp spines at the base of the tail that they use to defend themselves. Blue tangs can change colour to a darker blue to warn others of danger!

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

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 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.
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, colours and eat a variety of foods. Some species remain small and only grow to be about 3 – 5 cm in length whereas the giant Pacific octopus can grow to be on average 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 colour 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

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**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 coloured 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 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.

**Size:** 5.5 – 10 m, 18,600 kg  
**Diet:** Plankton, small fish, krill, jellyfish & squid  
**Predators:** Sharks & orcas
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 manoeuvre 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 colouration 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.

**Beluga Whale**

- **Size:** 3 – 5 m, 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

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 32 km per hour and dive to depths of up to 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!

**Sea Lion**

- **Size:** 1.8 – 2.1 m, 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!
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:** 1.2 m, 29 kg  
**Diet:** Sea urchins, abalone, crabs, fish, octopus, mussels & clams  
**Predators:** Orcas & sharks

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 colouration 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 colouration 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 behaviour helps keep the populations of their prey balanced in their shared ocean ecosystem.

**Size:** 5 m long, 230 kg  
**Diet:** Clams, shrimp, oysters, sea urchins & fish  
**Predators:** Sharks
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.

**Hermit Crab**

<table>
<thead>
<tr>
<th>Size:</th>
<th>7.6 – 10.1 cm, 200 – 500 g</th>
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<tbody>
<tr>
<td>Diet:</td>
<td>Plankton, worms &amp; detritus</td>
</tr>
<tr>
<td>Predators:</td>
<td>Fish, octopus &amp; sea turtles</td>
</tr>
</tbody>
</table>

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.

**Common Loon**

<table>
<thead>
<tr>
<th>Size:</th>
<th>81 cm, 4 kg</th>
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<tbody>
<tr>
<td>Diet:</td>
<td>Fish &amp; invertebrates</td>
</tr>
<tr>
<td>Predators:</td>
<td>Eagles, fish, raccoons, weasels &amp; otters</td>
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Loons can dive more than 61 m below the surface of the ocean in search of food.

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 borough 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 0.1 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: 1.2 m, 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 colour 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 12 and 14 m long and weigh up to 750 kg. 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.
Coral

Corals typically live in warm, shallow ocean waters and come in many different shapes, sizes, colours 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 1 cm to 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.

Sea Urchin

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 colours 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!

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

The name urchin is an old word for hedgehog.