

Teacher Resources

Tide pools:

1. During your students' time with us, they are going to meet a sea star, a sea urchin, sea snail, hermit crab, sea cucumber, and/or horseshoe crab! However, there are SO many more animals that can be found in tide pools. This video by Coyote Peterson shows the other wonders that can be found in this ecosystem, such as sea snakes and pufferfish.

Grades: K-5

Time: 5:04

Link: [Exploring for Tide Pool Creatures! - YouTube](#)

2. Animals that live in the intertidal zone rely on the schedule of high and low tides. How do high and low tides work? They are controlled by the moon! Check out this video by the NOAA that explains what causes the tides.

Grades: K-5

Time: 3:33

Link: [What Causes Tides? - YouTube](#)

3. Sea stars have an interesting way of eating... this video show how sea stars use their tube feet that arm lined along the bottom of their arms to pull the food towards their mouth, which is at the center of their body.

Grades: All

Time: 1:18

Link: [Sunflower star has weird way of eating - YouTube](#)

4. Is that a stingray? Or a turtle? Nope, it's a horseshoe crab! These animals, also referred to as living fossils, have been around for millions of years, even before dinosaurs. And guess what... horseshoe crabs are indeed *not* true crabs! They are closely related to arachnids, such as spiders and scorpions.

Grades: K-2

Time: 1:43

Link: [SPLASH AND BUBBLES | Get Your Feet Wet: Horseshoe Crabs | PBS KIDS - YouTube](#)

5. Where do seashells come from? Is it hermit crabs? Not quite! As hermit crabs grow, they move from shell to shell. Watch just how amazing this process is, and learn why it is important for the protection of these creatures.

Grades: All

Time: 4:04

Link: [Hermit Crabs LINE UP To Swap Shells! | Life Story | BBC Earth Kids - YouTube](#)

Sharks and rays:

Shark Senses

Grades: K-5

1. Hearing: Sharks have ears, but they are quite different from ours! Watch this short educational video explaining the way that sharks hear and sense the environment around them.

Time: 2:00

Link: [Shark Hearing | SHARK ACADEMY - YouTube](#)

2. Eyesight: You may have heard that sharks have poor eyesight... that is simply not true! Although it is not their best sense, this video explains just how well sharks can see.

Time: 2:28

Link: [Shark Eyesight | SHARK ACADEMY - YouTube](#)

3. Smell: Sharks have an incredible sense of smell, which is one reason they are at the top of the food chain. This video explains how sharks use sense of smell to their advantage.

Time: 1:35

Link: [Shark Smell | SHARK ACADEMY - YouTube](#)

4. Electroreception: Humans have five senses; did you know sharks have at least seven? Explore how sharks use their two extra senses in the water.

Time: 2:16

Link: [Electrosensory System | SHARK ACADEMY - YouTube](#)

5. Have you ever wondered how stingrays eat, or even where their mouth is? Surprisingly, it's very similar to how humans eat! The jaw of a stingray is made up of molar-like teeth that are used to grind down prey such as bony fish and crustaceans.

Grades: 3-5

Time: 1:14

Link: [New Discovery: Watch How Stingrays Eat | National Geographic - YouTube](#)

6. A stingray is a type of fish, but looks nothing like Nemo or Dory! So, what exactly is a stingray? This video will help young PreK learners understand the wonder of this incredible aquatic animal.

Grades: PreK

Time: 2:08

Link: [I'm a Stingray - YouTube](#)

7. Close your eyes and think of a shark... it is likely that a great white shark or hammerhead popped into your mind. However, there are over 500 species of sharks, and they come in all shapes and sizes! Let's learn about a few other types.

Grades: K-3

Time: 9:40

Link: [Shark Facts for Kids | Classroom Edition Sharks Learning Video - YouTube](#)

Reptiles:

1. Warm-blooded vs. Cold-blooded: One thing all reptiles have in common is that they are ectothermic, or cold-blooded. However, mammals, such as humans, are warm-blooded. This video explains the difference between warm-blooded and cold-blooded animals.

Grades: K-2

Time: 2:51

Link: [Warm-blooded vs Cold-blooded animals | for kids - YouTube](#)

2. What is a reptile anyway? Reptiles are one of the most diverse groups of animals in the world. What do they all have in common? What makes them different? Explore these questions with this video by Australia Zoo!

Grades: 3-5

Time: 3:08

Link: [What makes a reptile a reptile? | Australia Zoo Life - YouTube](#)

3. What is a reptile anyway? Reptiles are one of the most diverse groups of animals in the world. What do they all have in common? What makes them different? Check out this video to learn!

Grades: K-2

Time: 1:58

Link: [Reptiles for kids - Vertebrate animals - Natural Science For Kids - YouTube](#)

4. What is the difference between a turtle and a tortoise? Turtles are one of the four groups of reptiles. But did you know that there are hundreds of different types of turtles? This includes tortoises. Not all turtles are tortoises, but all tortoises are turtles... so what is the difference?

Grades: K-5

Time: 11:16

Link: [Feeding the BFT! - YouTube](#)

5. Snake lost their legs millions of years ago, so they must not need them right? Snakes often slither to get around, but that is not the only way they move. Depending on the species, there

are various ways a snake can travel. Each type of snake has a unique pattern of scales that tells us how they move and why.

Grades: 3-5

Time: 6:53

Link: [How Snakes Move! \(They don't just slither!\) - YouTube](#)

6. Alligators and crocodiles: they may look the same, but they are in fact two different types of animals. So what exactly is the difference between alligators and crocodiles? Let's figure it out together!

Grades: 2 and up

Time: 2:05

Link: [Cool Facts About Alligators and Crocodiles | Things You Wanna Know - YouTube](#)

Penguins:

1. There are 18 species of penguins; how many can you name? Some penguins enjoy the ice and snow, but others prefer warm, sandy beaches. Meet the many species penguins and find out where they live in this video by Polar Guidebook.

Grades: 3-5

Time: 5:23

Link: [How Big Are Penguins? \[Height + Weight Comparison\] - YouTube](#)

2. All about penguins... for kids! Need a quick and basic introduction into the world of penguins? Learn what makes a penguin a bird, what makes them unique, and so much more about these flightless aquatic wonders.

Grades: K-5

Time: 6:06

Link: [All About Penguins for Kids: Penguins of the World for Children - FreeSchool - YouTube](#)

3. When you think about penguins, you usually think of cold weather, ice, and snow. In reality, penguins also live in hot places! In fact, most penguin species enjoy the warm sun and sandy beaches! Let's meet some of our warm-weather friends.

Grades: 3-5

Time: 3:02

Link: [Penguins Also Live in Hot Places Like Australia - YouTube](#)

4. Penguins have two layers of feathers that keep them warm and waterproof as they swim through the water. During molting season, penguins go through a catastrophic molt to regrow new feathers. Explore this process and why it is so important.

Grades: All

Time: 6:32

Link: [Virtual Visit: Why Do Penguins Molt? - YouTube](#)

5. Did you know that penguins make sounds? They use various vocalizations to communicate with each other. And... it may not be what you are expecting.

Grades: K and up

Time: 1:31

Link: [The African Penguin Bray - Sounds Of The Aquarium - YouTube](#)

Conservation:

1. Children's Animated Audiobook: Save the Ocean by Bethany Stahl: A Story About Recycling

Grades: PreK and K

Time: 3:33

Link: [Save the Ocean by Bethany Stahl | Children's Animated Audiobook | A Story About Recycling - YouTube](#)

2. How can we clean up the ocean? It may seem like a large and daunting question, but a very important one.

Grades: 5 and up

Link: [How Can We Clean Up the Oceans? - Bing video](#)

3. Sylvia Earle is a world renowned marine biologist, conservationist, oceanographer, and explorer. Here is a Ted talk by this extraordinary woman in STEM about what we can do to help protect our oceans.

Grades: 9 and up

Time: 18:16

Link: [Sylvia Earle: How to protect the oceans \(TED Prize winner!\) - YouTube](#)

Ocean:

1. Just how deep does the ocean go? Way further than you think! This animation gives an idea of just how mysterious our ocean is.

Grades: 2 and up

Time: 3:29

Link: [This Incredible Animation Shows How Deep The Ocean Really Is - YouTube](#)

2. If you have ever wondered about the size of ocean animals in comparison to a human, you are in luck! From living animals around today to prehistoric creatures, explore the actual size of awesome ocean life.

Grades: 2 and up

Time: 10:12

Link: [Sea Monsters Size Comparison. The Largest Sea Animals, Living and Prehistoric - YouTube](#)

Careers:

4. Do you have students that are interested in a career in marine biology? Here is a great introduction into what route to take to start your career in ocean science and conservation.

Grades: 6 and up

Time: 4:38

Link: [How do you become a marine biologist? | Earth Unplugged - YouTube](#)