

On the
Other Side
of the
Glass

Wow! There are
so many different
animals to see! Where
should we start, Kat?

The bears,
of course!



When you love animals, a trip to the zoo can seem like the perfect chance to get up close and personal with wildlife. After all, where else can you see so many different animals together in one place?

With such amazing diversity on display, zoos can be an exciting way to spend a few hours. But what about the animals who have to spend their entire lives there, day after day in the same space?

The next time you visit a zoo, take a moment to put yourself in an animal's place. How might it feel to be on the other side of the glass, looking out? You might just be surprised at what you discover!



Take a bite out of *global warming*

The biggest reason for burning down the tropical rainforests is for beef production — to either grow crops for cattle or let cattle graze the land.

With all the talk of **climate change**, how can you help? One thing to consider is eating less meat. Raising farm animals affects the planet in lots of ways. Huge amounts of water and land are used to raise farm animals. In South America, for example, the biggest reason for **cutting down the tropical rainforests** is for beef production — to either grow crops for cattle or let cattle graze the land.

In addition, farm animal manure often gets into waterways, causing **unsafe drinking water** and making it hard for fish to survive. A lot of water is used for the animals to drink and to water the crops that feed the animals. (Growing crops for people to eat uses a lot of water, too, but not as much.)

Dairy and beef cattle also produce **methane gas** by burping and, yes, farting a lot! Methane gas, like **carbon dioxide**, is a **greenhouse gas**. In fact, methane is about 30 times worse for global warming. A single cow, on average, releases 70 to 120 kilograms of methane per year. If you multiply that by the world's 1.5 billion cows, that's a huge amount of gas!

Of course, eating less meat is also kinder to the animals. Fewer animals will need to be raised if we cut our meat intake.

Not only does eating less meat help the environment and animals, eating more fruits and vegetables is healthy for people and generally costs less. For these reasons, many people are switching to a more **plant-based diet**.

Sometimes it's hard to eat vegetarian if your family and friends eat meat. You can suggest your family try eating meatless once or twice a week (a Meatless Monday and Friday, for example).



If you can't skip meat at home, you can when you go out to eat. It's easier than ever to order a **meatless meal** like a plant-based burger. If you don't see anything meatless on the menu, ask the restaurant server if they can do a veggie option (for example, a meatless pasta).

Let your favourite restaurant or fast food joint know you'd like them to carry vegetarian options. **You can make a difference, one meal at a time!**



Bonnethead shark

Sharks are

jawsome!

Sharks are one of the most feared creatures in the ocean – and also one of the most misunderstood. How much do you know about these fascinating fish?

Horn shark

Thresher shark

TEST YOUR SHARK SMARTS

1. All sharks are carnivores (meat-eaters). **True** or **false**?

False. Scientists used to think that all sharks were carnivores – until they saw a bonnethead feeding on seagrass! Bonnetheads are the first known omnivorous shark, meaning they eat both plants and animals. Bonnetheads also chow down on shrimps, crabs and squids.

3. All sharks have the same sharp, pointy teeth. **True** or **false**?

False. Shark teeth are as varied as the foods they eat. Horn sharks, for example, munch on clams and snails. Their mouths are filled with cone-shaped teeth up front (perfect for grabbing) and rounded teeth at the back (tailor-made for crushing).

2. Are there sharks here in British Columbia?

You bet! Our province is home to 14 species of shark, from the tiny two-foot brown cat shark to the bus-sized basking shark. Even great whites have been spotted here!

Did you know that climate change might mean more sharks off our coast? Rising ocean temperatures could cause normally tropical sharks to migrate north.

SMALLEST SHARK? The dwarf lantern shark is only about 8 inches long.



+ **GLOWING SHARK?** Lantern sharks have special cells called photophores (foe-toe-fours) that give off light. These sharks live in the deep ocean, where they might use this light to communicate – scientists are not quite sure!

Tiger shark



Biggest shark? Measuring in at a whopping 40 feet from snout to tail, the whale shark is the largest fish in the world.

Whale shark

4. Which is more likely: being struck by lightning or bitten by a shark?

Shark attacks are rare, especially when you think about how many people swim, work and play in the ocean every day. **Your odds of being bitten by a shark are only about 1 in 11.5 million.** You are about 10 times more likely to be struck by lightning.

Sharks can detect the weak electrical signals given off by other fish. They are so sensitive to electricity that they could pick up on a D-sized battery from 1,300 kilometres away!

5. Do sharks have any predators?

Yes, sharks have predators, including seals, whales and other sharks. **But their greatest threat comes from humans.**

Sadly, overfishing has caused huge declines in shark populations around the world. Each year, as many as 100 million sharks are caught for their meat, fins and livers. Because sharks take so long to mature, their populations are very slow to recover.

Shark egg

Some sharks lay eggs. Others give birth to live babies. Shark pregnancies can last a long time. Frilled sharks, for instance, are pregnant for more than three years! Baby sharks are called pups.



Frilled shark

6. Sharks all hunt the same way. True or false?

False. Sharks have different hunting strategies. Threshers use their extra long tails like a whip to slash and stun small fish before eating them. Similar to wolves, sevengill sharks team up in packs to attack seals. Tiger sharks stalk – well, like tigers! – to catch sea turtles by surprise. Gentle basking sharks just swim along the surface of the water with their mouths open to filter out zooplankton.

HUNGRY FOR MORE? TAKE A BITE OUT OF THESE SHARK RESOURCES!



Some sharks travel very long distances. Blue sharks swim from North America to Europe and back again – a trip of more than 16,000 kilometres.

Ocearch

Check out ocearch.org to track the movements of real sharks in real life!

Sharks: The Animal Answer Guide

By Gene Helfman and George H. Burgess
Published by John Hopkins University Press

Sharks: Nature's Perfect Hunter

By Joe Flood
Published by First Second



Blue shark