3 + ? = 12 8 ? $x - 7 = 4$ 2 x ? + 8 = 17

Amazing Animals



Wild Whales

Addition and Subtraction

Melissa Pioch

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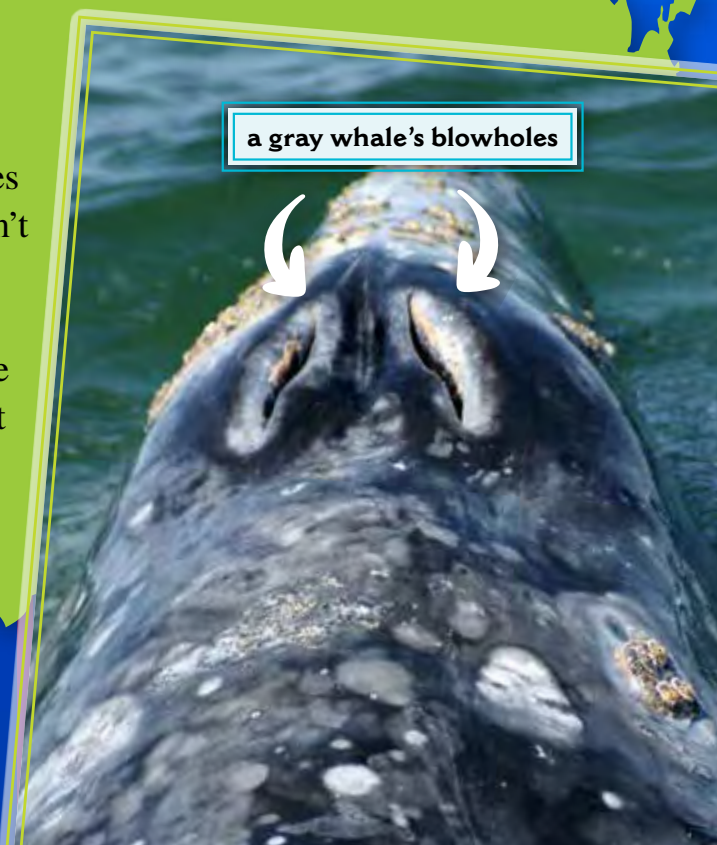
Don't Call Them Fish!

Where does an orca go for braces? The orca-dontist! Why was the whale so sad? Because he was a blue whale!

All jokes aside, whales are interesting animals. There are over 80 **species** of whales, including the orca and blue whale that took starring roles in those jokes! Whales in the wild live their entire lives in ocean waters. But, they are not fish.

Whales are **mammals**, like cats, dogs, and humans. Whales have lungs and need to breathe air. They cannot breathe underwater, so they have to swim to the surface to breathe. Whales breathe through **blowholes** on the tops of their heads. They take in air through the blowhole when they reach the water's surface.

Like all mammals, whales give birth to their babies and feed them milk. Whale babies are called calves. Calves aren't small like other animals' infants. In fact, when baby blue whales are born, they are already the same size as adult elephants!



a gray whale's blowholes



humpback whale and calf

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Toothed Whales

What sets toothed whales apart from other whales? You guessed it—teeth! There are about 65 species of toothed whales. Toothed whales are hunters. They chase and eat fish, starfish, crabs, squid, and other ocean animals. Their sharp teeth grip **prey** to prevent escape. Once they have the prey in their grasp, they can swallow it whole or in chunks.

Most toothed whales find their prey with the help of **echolocation**. It helps them "see" in the ocean's dark waters. So, how does it work? Well, toothed whales emit sounds from their foreheads. Those sounds bounce off objects and return to the whales (the sounds echo). The quicker sounds bounce back, the closer objects are. Whales use this information to find nearby food.





Orcas are the most widely known toothed whale.

Belugas are toothed whales known for their white coloring.

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Orcas force a school of fish into a tight ball.

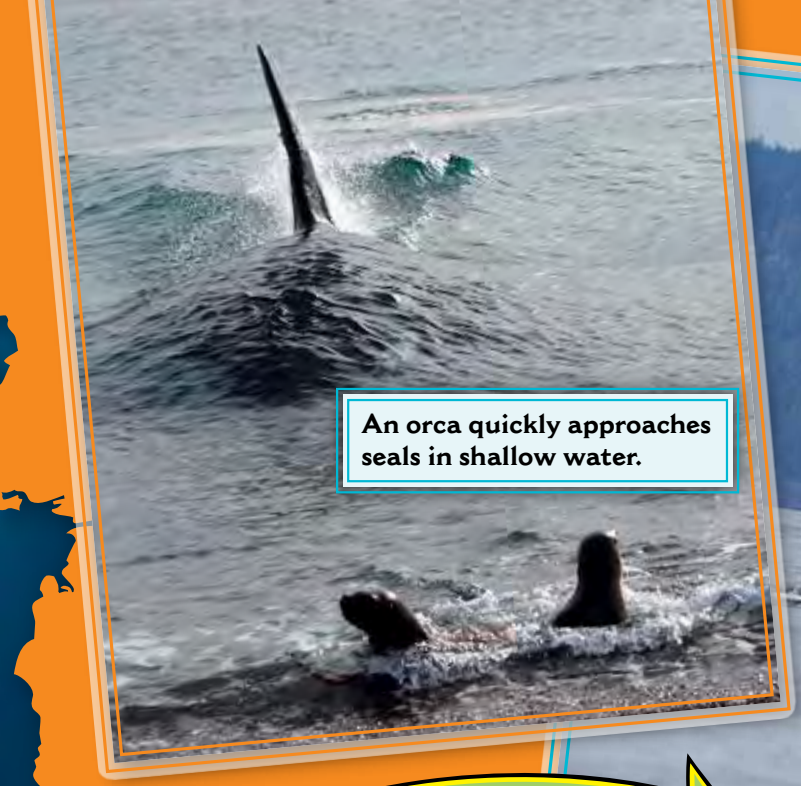
Orcas

What has a black body, a white belly, and can jump through the air? (No, this is not a joke.) It's an orca. Orcas, or killer whales, are ocean **predators** that can eat up to 500 pounds (225 kilograms) of food each day.

Orcas live and hunt together in **pods**. They hunt seals, penguins, sharks, and even other whales. Orcas catch their prey in many ways. Sometimes, they swim around a group of fish. The movement forces the fish into a tight ball. Then, the orcas slap the fish with their tails. This stuns the fish. Orcas also make waves by moving their fins and tails. Seals and penguins on nearby blocks of ice lose their balance in the unsteady water.

Once orcas catch their prey, they do not chew. Instead, they swallow most of their meals whole. Sea lions and small seals slide down easily. Sharks and whales are swallowed as chunks.

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An orca quickly approaches seals in shallow water.

An orca breaches close to shore.

LET'S EXPLORE MATH

Orcas have about 45 teeth that are shaped to tear and rip apart prey.

1. How many teeth would two orcas have?
2. How many teeth would four orcas have?
3. How can the solution to the first problem help you solve the second problem?



model of orca teeth