

For Creative Minds

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Dangerous Adaptations

Animals don't go to the grocery store to get their food. Wild animals that eat meat (carnivores) must hunt and kill their prey if they are to survive. And animals protect themselves, their young, and/or their territory. Every animal has body parts or special behaviors (adaptations) to help find and get food (plant or animal) and to protect themselves from becoming prey.

Some animals bite prey to kill. They often have huge mouths, strong jaws, and sharp teeth to cut through another animal's skin and bones. They might hold onto their prey with their strong teeth and rapidly shake their heads back and forth to break the prey's neck. Have you ever seen a pet dog shake a stuffed animal like that? It is acting on instinct; it's how a wild dog would kill prey.

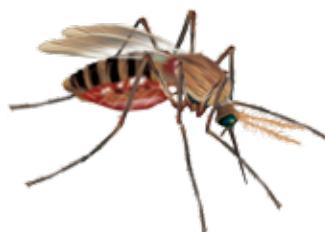


Venomous animals release a poison (venom) with their bite or sting. These animals make the venom inside their bodies and use it to kill prey (animals they want to eat). They will also use the venom to protect themselves from predators or if scared. Not all venomous animals can kill a human, but they can cause pain. Fire ant or bee venom may be painful but won't kill a human, unless the human is allergic.



Poisonous animals don't make the poison in their bodies but usually get the poison from things they eat. They only become "poisonous" to something that touches or eats them (defense).

In some cases, like the mosquito, the animal might carry germs that are not part of its protection or defense. The germs are just something it picked up from eating something else. But, when it bites or is eaten, the germs are passed along and can make the next animal sick. Mosquitoes may carry many diseases that can cause people to suffer from high fever, nausea, weakness, rashes and death. Wearing bug spray when outside helps keep mosquitoes away. For people living in the tropics, using a net around the bed at night also prevents mosquito bites.



How Animals Use Adaptations: Predator or Prey?

Some predators use these adaptations to catch food. Some use these adaptations to protect themselves from becoming prey to other predators. Many animals use the adaptations for both reasons. Do the adaptations help predators kill their prey, protect prey from predators, or both? Can you think of any other animals that might use the same adaptations for the same reason?



Box jellies' venom-filled stinging cells kill prey almost immediately and protect the jellies from becoming prey to octopuses or sharks. For some reason, sea turtles can eat these animals without being stung.

Inland taipans use their venom to hunt their favorite food: rats and mice. They will also use the venom to protect themselves. Fortunately, these snakes are shy and are rarely seen by humans.



These sharks eat anything and everything, taking a great big bite out of their prey with their huge mouths and sharp, saw-like teeth. Even though they are "the top of the food chain," young protect themselves with their teeth.

Porcupinefish use water or air to blow themselves up like a balloon and have spikes to avoid being eaten by predators. They also carry poisonous bacteria from algae they have eaten.



Brazilian wandering spiders don't wait for food in a web. They actively hunt and kill prey with their venom. If scared, they use their venom to protect themselves.

Cape buffalo can weigh up to 2,000 lbs (900 kg). They will trample anything in their way. They use their horns to defend young by attacking lions, hyenas, and humans.



Saltwater crocodiles grab prey with strong jaws and sharp teeth and drag them into the water to eat. They hunt animals that live in the water or on dry land. If scared, they attack animals that get too close—even humans.

Hippopotamuses eat plants. They use their large tusks and teeth to defend their young and territories.



Cassowaries are related to ostriches and emus. These shy birds will kick with their strong legs and sharp claws if they feel threatened.



Answers: box jellies: both; inland taipans: both; shark: predator; porcupinefish: protection; cassowaries: protection

Brazilian wandering spiders: both; Cape buffalo: both; saltwater crocodiles: both; hippopotamuses: both; cassowaries: protection; cassowaries: protection

Where in the World?



Find the animals on the map.

There are hundreds of different types of jellies in the world. Deadly **box jellies** live in the tropical **ocean** waters off northern **Australia** and **Indonesia**.

The deadly **inland taipan** lives in **desert** and **shrub** areas of **Australia**. Not all snakes are venomous and of those that are, not all are deadly to humans.

Great white sharks live in warm and temperate (not too hot and not too cold) **oceans** all over the **world**. They visit breeding areas for seals and sea lions where it is easy to get food.

Porcupinefish live in warm, tropical **ocean** waters all over the **world**. They prefer the shallow waters around reefs, mangroves, and sea grass.

Brazilian wandering spiders live in **Central** and **South American rainforests**. They wander the jungle floor at night looking for food but hide in termite mounds or banana plants during the day.

The **Cape buffalo** lives close to water throughout the **savannas** of **Africa**.

Saltwater crocodiles live in **rivers** and in the **ocean** off the eastern coast of **India**, parts of southeast **Asia**, and northern **Australia**.

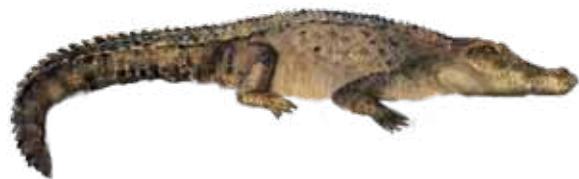
Hippopotamuses live on **land** and in **water** in **Africa**. Although they graze often on land, they are only territorial in the water.

Cassowaries live in the tropical forests of **New Guinea** and northeastern **Australia**. These birds walk and run but don't fly.

Mosquitoes live **near water** on all **continents except Antarctica**. They are active all year long in tropical regions but hibernate in the winter where it gets cold.

Thinking it Through: Design an Animal

Design (draw or build a model with clay) of your own made-up animal. Think about and be ready to answer these questions:



In what kind of habitat does your animal live?



How does your animal move? Does the movement fit the habitat?

Does your animal eat plants or other animals?



If your animal eats other animals, how does it capture its prey?



How does your animal hide from predators or prey?



How does your animal protect itself from predators or when scared?

