

Name _____

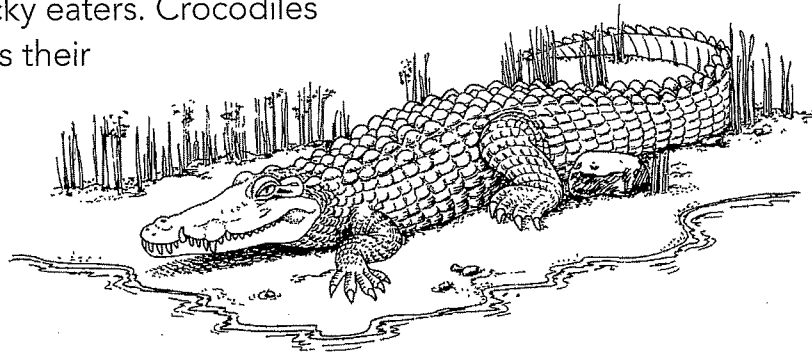
Day 1

Weekly Question

How have crocodiles survived for millions of years?

Crocodiles are one of the oldest animals on the planet. According to the fossil record, crocodiles have been around for at least 220 million years. They have survived two mass extinctions, including the one that killed off the dinosaurs. Modern crocodiles first appeared about 84 million years ago, and they have changed very little since then.

Crocodiles have adaptations that allow them to **exploit** a variety of niches. Their adaptations help them live through harsh conditions and adjust to changing environments. Crocodiles are semiaquatic, which means they can live both on land and in water. And they certainly aren't picky eaters. Crocodiles will eat anything that crosses their path. This includes insects, eggs, fish, frogs, turtles, birds, and mammals. And crocodiles can live in a variety of habitats, from salt water to deserts.



Daily Science

Big Idea 2

WEEK 2

Vocabulary

exploit
eks-PLOYT
take advantage of

A. Write true or false.

- 1. A crocodile's diet is limited to animals that live in water. _____
- 2. Today's crocodiles look very similar to their ancestors. _____
- 3. A crocodile is adapted to live in many different habitats. _____
- 4. Crocodiles have a low tolerance for harsh conditions. _____

B. How might an animal that can live both on land and in water be better adapted to climate change? Explain your answer.

Name _____



Day 2

Weekly Question

How have crocodiles survived for millions of years?

Crocodiles have several adaptations that make them excellent predators both in the water and on land. For example, a crocodile's eyes, ears, and nostrils are on top of its head, allowing it to keep its whole body underwater as it sneaks up on prey. Also, a crocodile can stay submerged for up to two hours without breathing, which gives it more time to hunt or hide from danger. And crocodiles are extremely fast runners and swimmers. They can easily chase down their prey and escape threats from other animals.

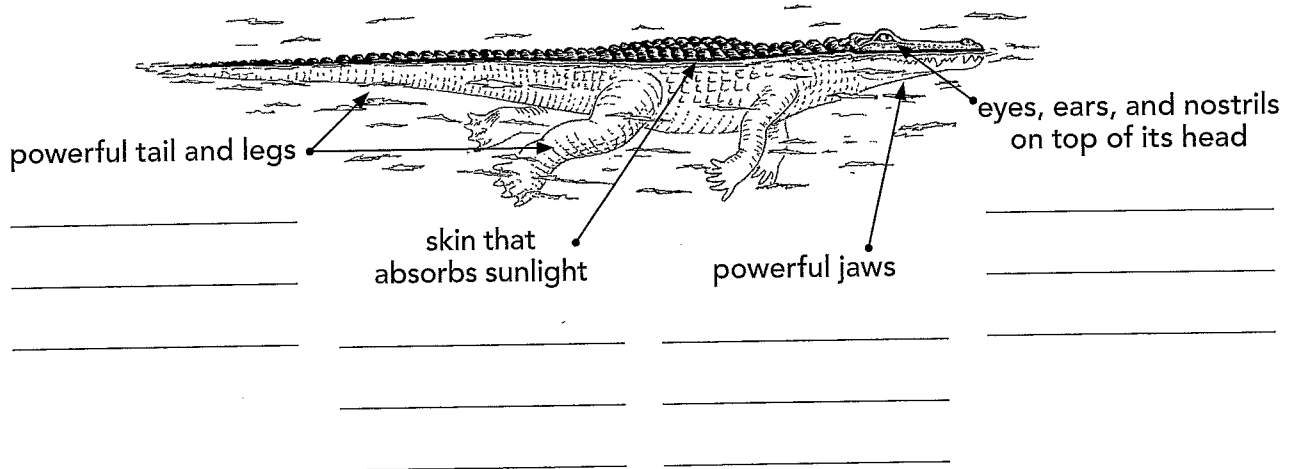
In addition to their speed, crocodiles have cone-shaped teeth and powerful jaws, perfect for capturing prey and crushing bones. And their digestive systems are able to process every part of their prey, including hides and hooves. But when food is scarce, crocodiles can survive up to two years without eating. This is because they are **ectothermic**—they don't depend on calories from food to produce heat. Much of their heat energy comes from the sun.

Vocabulary

ectothermic

ek-toh-THUR-mik
dependent upon the sun as a source of heat

A. Explain how each trait labeled in the diagram helps the crocodile survive.



B. Because crocodiles are ectothermic, what habitats might not be suitable for them? Explain your answer.

Name _____

**Day
3**

Weekly Question

How have crocodiles survived for millions of years?

Crocodiles are adapted to survive in a variety of environments. They live primarily in freshwater habitats, including rivers, lakes, and swamps. But crocodiles can also survive in salt water. Because their ancestors were marine animals that lived in the ocean, modern crocodiles still have salt glands on their tongues that remove salt from their system after they have swallowed it.

Recently, scientists have even discovered crocodiles that inhabit dry, nearly waterless environments. These crocodiles were found living in caves, in burrows, and under rocks on the edge of Africa's Sahara Desert. The crocodiles live near watering holes that can dry up for months at a time. During droughts, the crocodiles survive by entering a state of **dormancy**, which conserves their energy so they require little food or water.

Daily Science

**Big
Idea 2**

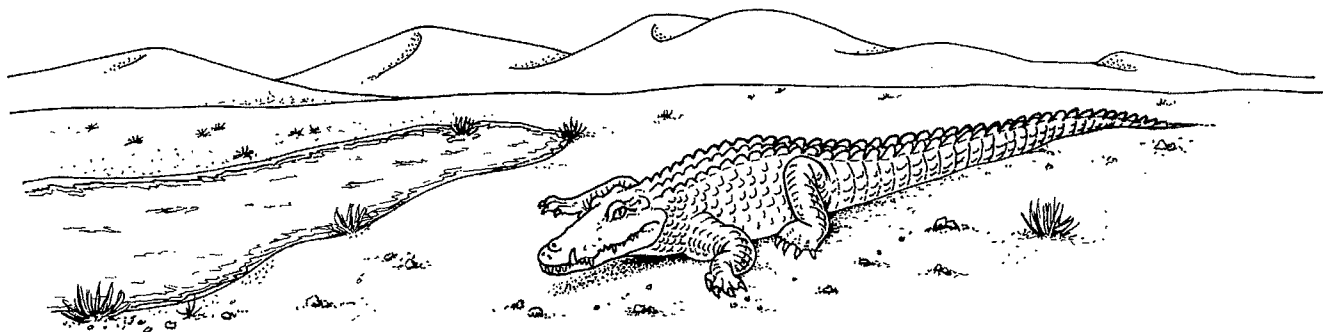


WEEK 2

Vocabulary

dormancy

DOR-mun-see
a resting condition in which body functions slow down and growth stops



A. According to the passage, which adaptation allows crocodiles to live in salt water? Which adaptation allows them to live in the desert?

Salt water: _____

Desert: _____

B. Like all reptiles, crocodiles have scaly skin instead of soft skin. How do you think their skin helps crocodiles survive in their various habitats?

Name _____



Day 4

Weekly Question

How have crocodiles survived for millions of years?

Crocodiles have survived for a long time because they are not *specialized*, meaning that their adaptations did not evolve for just one particular environment. Instead, crocodiles are *generalized*—they have general adaptations that allow them to live in many habitats.

Despite their knack for survival, most crocodile species are now **endangered**. The main threats to crocodiles are habitat loss, pollution, and overhunting. For example, in India, a crocodile called a gharial (GAR-ee-ul) has become critically endangered because of overfishing, pollution, and erosion of the riverbanks where it makes its home. There are now fewer than 200 gharials left in the wild.

Conservation efforts for the gharial include protecting its remaining habitats and breeding the crocodiles in captivity before reintroducing them into the wild.

Vocabulary

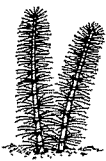
conservation

KON-sir-VAY-shun
careful preservation and protection of an organism or habitat

endangered

en-DAYN-jerd
in danger of becoming extinct

Look at the species below and, next to their descriptions, write whether you think their adaptations are *specialized* or *generalized*.



- 1. The horsetail plant is 375 million years old. It can grow on mountaintops, in the tropics, on land, or in water.



- 2. The Smith's blue butterfly relies on nectar from the buckwheat flower, which grows only on the central coast of California.

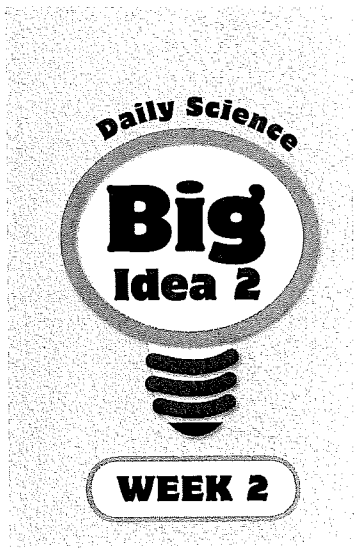


- 3. Cockroaches are found on every continent on Earth, including Antarctica.

Talk

Throughout history, crocodiles have been the subject of myth and legend. In some cultures, they are worshiped. In others, they are feared. How might people's perceptions of crocodiles contribute both to their survival and to their extermination?

Name _____



Day 5

Weekly Question
How have crocodiles survived for millions of years?

A. Use the words in the box to complete the paragraph.

conservation dormancy ectothermic
endangered exploit

Crocodiles have many adaptations that have allowed them to _____ a variety of different environments. For example, crocodiles are _____, which means they don't require food to produce heat. When food and water are scarce, crocodiles are able to enter a state of _____ to save energy. Despite their adaptability, however, many crocodile species are now _____, or at risk of becoming extinct. So _____ efforts are being made to protect crocodiles from habitat loss and overhunting.

B. Explain the difference between generalized adaptations and specialized adaptations.

C. Name two crocodile adaptations and explain how these adaptations allow crocodiles to exploit a variety of conditions.

1. _____
2. _____