

3-5 Teachers and Parents,

Welcome to Special Place !

We have many animals that live at the Howard B Owens Science Center (HBOSC). We consider them part of our Owens family. A series of video episodes titled "Animals Up Close" are being created to share these animals with our children virtually. Each episode answers 5-10 questions about the animal. Students have the opportunity to ask questions before an episode by visiting the virtual Special Place or you can share on one or more of animal links in your Google Classroom.

Ants	Bearded Dragon	Bees
Beetle	Chameleon	Fish
Fossils	Frogs	Horseshoe Crabs
Millipedes	Snakes	Turtle

About This Episode

This episode of Animals Up Close focuses on our alligator, Ally ([Animals Up Close: Alligators](#)). Let the students know that Ally is a real alligator and Mrs. Stahman who is holding her is specially trained. Also, you might mention that since Mrs. Stahman is focused on holding Ally correctly, she will not be able to talk and answer questions during this episode.

To share the [Animals Up Close: Alligators](#) video with students, you can download and stream it using Zoom or Meet so you can watch it with students. We suggest you download it to stream so there is no buffering. You could instead share the link directly with students in Google Classroom. Here is the video via YouTube <https://youtu.be/IUB08Fh3Dbg>.

After you show the episode, be sure to use the virtual lab of [3-5 Alligator Grow Creatures!](#) This full Google Slides virtual lab walks students through the "growth" of a fake alligator grow creature over a period of days. The resource includes virtual lab sheets or directions for using a notebook page, and videos for each step of the way!

NGSS Alignment

[4-LS1-1](#). Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. **[Clarification Statement: Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung,**

brain, and skin.] [Assessment Boundary: Assessment is limited to macroscopic structures within plant and animal systems.]

CCRSS- RELA

CCSS.ELA-LITERACY.W.4.1

Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

Animals Up Close: Alligators Episode

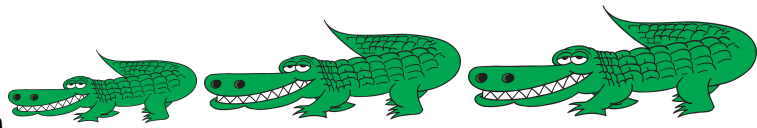
The video is 17 minutes long and contains 10 questions. During the video when each question is presented, the question appears on the screen with a short musical break. This allows you to pause for students to predict or share what they think the answer might be. Students aren't expected to know these answers. A [brief summary of each answer is provided](#) that was included in the video. You can choose to watch the video together or provide the link for your students to watch on their own.

CER: Rewatching the episode for evidence:

Once students have viewed the video the first time, they can rewatch it to collect evidence for the included CER. They can start the episode around 4:34 to begin collecting evidence with the question, " What do alligators eat?". They can end with "Special Adaptations/Characteristics" at 14:47. This rewatching to collect evidence includes Questions 6-9 in the video. A [sample response](#) to the CER is included.

Question: Do animals have external features that function to support their survival, growth and behavior?

Claim <i>The answer to the question</i>	Alligators are animals and they have external features that help them to survive, grow and behave in their environment.
Evidence <i>How do you know?</i>	
Reasoning <i>Why does your evidence support your claim?</i>	



Special Place Lab: Alligator Growth

A full companion lab with all the resources needed to complete digitally or virtually are included in [3-5 Alligator Grow Creatures!](#). This investigation can be done several ways. Families at home can get the simple materials and do it on their own. Teachers can lead their students through the investigation for 7 days, recording the data that is displayed through the daily videos. Prior to doing the investigation, it is highly suggested that teachers or parents wishing to do the investigation with their child(ren), review all of the materials prior to starting. All the links to slides and digital resources are included in the "Read Me First " file for [3-5 Alligator Grow Creatures!](#)

Answer Key for Alligator Up Close Questions

1. How old is Ally?

Ally has been with us for almost 3 years and we got Ally when Ally was only about 10 weeks old. An alligator can live for more than 50 years in captivity. The oldest alligator in captivity is over 76 years old and lives in a zoo in Siberia. While there are currently no methods for determining the age of an alligator while still alive, it is known that those in the wild tend to live to between 35 and 50 year, while those in captive generally live longer, around 65-80 years.

2. Girl or Boy Gator?

We don't really know. Well, it's hard to tell by just looking at the outside of a young alligator if it is a girl or boy.. But mostly you have to examine them on the inside to find out and you have to wait until they are older. Also you can measure them . If they measure longer than 9 feet or longer it is male. But you have to know the alligator you are measuring is fully grown. So, we just call our alligator Ally but don't know if Ally is a boy or girl at Ally's age.

3. How long will Ally get?

We don't know- since we don't know if Ally is a girl or a boy. Female alligators rarely exceed 10 feet in length, but males can grow much larger. The [Florida state record](#) for length is a 14 foot 3-1/2 inch male from Lake Washington in Brevard County. The Florida record for weight is a 1,043 pound (13 feet 10-1/2 inches long) male from Orange Lake in Alachua County.

4. Where did Ally come from?

Our alligator came from a reptile reserve in Plant City, Florida operated by a friend of the Owens Science Center, Bruce Swedick. When our alligator gets too big for the habitat we have

at the center it is moved to another location, like another center, zoo that is in need of a large alligator or it is sent back to the reserve. We then receive a new "Ally" that stays with us for a few more years.

5. Where do American alligators live in nature?

Alligators occur from southeast Oklahoma and east Texas on the western side of their range to North Carolina and Florida in the east. They prefer fresh water lakes and slow-moving rivers and their associated wetlands, but they also can be found in brackish water habitats.



US Geological Survey- Nonindigenous Aquatic Species

6. What do alligators eat?

With their sharp teeth you can tell that they are meat eaters (carnivores) . However, alligators are opportunistic feeders. They eat anything easily accessible. Juvenile alligators eat primarily insects, amphibians, small fish, and other invertebrates. Adult alligators eat fish, snakes, turtles, small mammals, and birds.

7. What are alligators?

Alligators are animals that have bones (vertebrates). Alligators are Reptiles. Reptiles are a group of animals that share common characteristics.

They have:

- 5 front toes.
- Claw
- Scales
- Pointy tail

- Cold-blooded; this is called **ectothermic** -- they rely on external sources of heat to regulate their body temperature. Alligators control their body temperature by basking in the sun, or moving to areas with warmer or cooler air or water temperatures.
- Most reptiles lay eggs, although a few reptiles have live births. .

8. Alligators Lay Eggs

Females may require 10-15 years and a males 8-12 years to reach @ 7 feet in length when they are mature enough to reproduce. Females build a mound nest of soil, vegetation, or debris and deposit an average of 32 to 50 eggs in late June or early July. Incubation requires approximately 63-68 days, and hatching occurs from mid-August through early September. Female alligators stay near the nest through hatching (this is not true for all reptiles- many leave once laying their eggs). They stay around for the first year of their babies' lives, protecting them from predators. Baby alligators will make a barking or yipping sound that the mother alligator recognizes.

9. Special Adaptations/Characteristics

Physical Adaptations

- Alligators are well camouflaged to remain hidden while resting or hunting. (floating log)
- The young also have stripes that blend with grass when they are out of the water.
- Powerful tail used for swimming.
- Webbing between toes for for swimming
- Eyes and nostrils on the top of their head so they can remain submerged while breathing and keeping an eye out.
- A "third eyelid" called the nictitating membrane sweeps sideways across the eye to protect the eye during feeding and diving. (like having a swim goggles on underwater)
- Their powerful jaws and sharp teeth can deliver a very powerful bite. Even very young alligators are capable of inflicting serious bites.

10. How can you tell an alligator from a crocodile?

The easiest and safest way from a distance is to look at the head. Alligators have a U shaped head and crocodiles have a narrow V shaped head. Look at Ally's head you can see Ally has a U shaped head.

Sample Response for CER

The responses below are just a **sample** of the evidence that the students can collect while watching the Animals Up Close: Alligators episode. Students should not be expected to have all the evidence listed below.

Question: Do animals have external features that function to support their survival, growth and behavior?

Claim <i>The answer to the question</i>	Alligators are animals and they have external features that help them to survive, grow and behave in their environment.
Evidence <i>How do you know?</i>	• Alligators are animals • They have bones • They are reptiles - one of the five groups of animals with bones • Sharp teeth for eating/ripping and tearing meat • Sharp teeth and claws to protect and hunt • eyes on top of their head and nose on top of head so they can stay under water to better hunt their prey • line pattern in scales on young to help them blend in (camouflage) when they are out of the water in the grass • webbed feet for swimming in the water, • special eyelids (nictitating membrane) like goggles for swimming and hunting prey underwater. • Tail helps with swimming in the water , • scaly skin is waterproof for stay in the water for long time
Reasoning <i>Why does your evidence support your claim?</i>	Alligators are a group of animals called reptiles. Many of their external features are for survival. They have sharp teeth for eating/ripping and tearing meat. They also use their sharp teeth and claws to protect and hunt. Alligators have eyes and nose on top of their heads so they can stay under water to better hunt their prey . Baby alligators have a line pattern in their scales to help them blend in (camouflage) when they are out of the water in the grass. Many of the same external features also function to support their behavior in their environment. Alligators spend a lot of time swimming and looking for prey in the water and they have webbed feet to help them swim in the water, like wearing a pair of flippers. Also their eyes and nose are positioned on top of their heads because they spend a long time floating in water. They even have special eyelids (nictitating membranes) like goggles for swimming and hunting prey underwater. Their long pointy tail helps with swimming or fighting in the water. Their scaly skin is waterproof for staying in the water for a long time. The same external features that help them survive and behave allow them the best opportunities to grow. All of these external features help alligators, survive, grow and support their behavior in their environment.

Please feel free to email at virg.casbourne@pgcps.org if you have any questions.



Sincerely,
Mrs. Fulton and all the critters in Special Place