



(16) Animal-Themed Unit Studies

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User Notes

The resources in this book were designed for elementary school (1st-5th) grade children. In some cases, they are marked as *younger kids* or *older kids*, meaning that they are appropriate for preschool or middle school aged children. As the parent-teacher, you can tailor units up or down as needed.

There are several links embedded within this file. We have made them **this red color so that they are easy to spot. Just click on **the red link**, and it will take you straight to the source! (*These two are not active. The ones below are.*)**

Please do not share this file with others. Direct them to our site to download it.

Field Trips to the Zoo...

The zoo is a popular field trip for most families. We maintain a yearly membership and go often, but a few years ago, we started doing 'focused trips. Rather than idly meandering around the zoo, as we did when they were toddlers, we had the kids each pick one animal to focus their trip on.

Before the field trip, the kids each pick out their animal and do a little bit of online or library research about it. Then, while walking around the zoo (we wouldn't want to neglect all of the other cuties!), we spend a bit more time than usual studying their selected animals. We interact with the animals' zookeepers, and get up close with the animals, whenever possible.

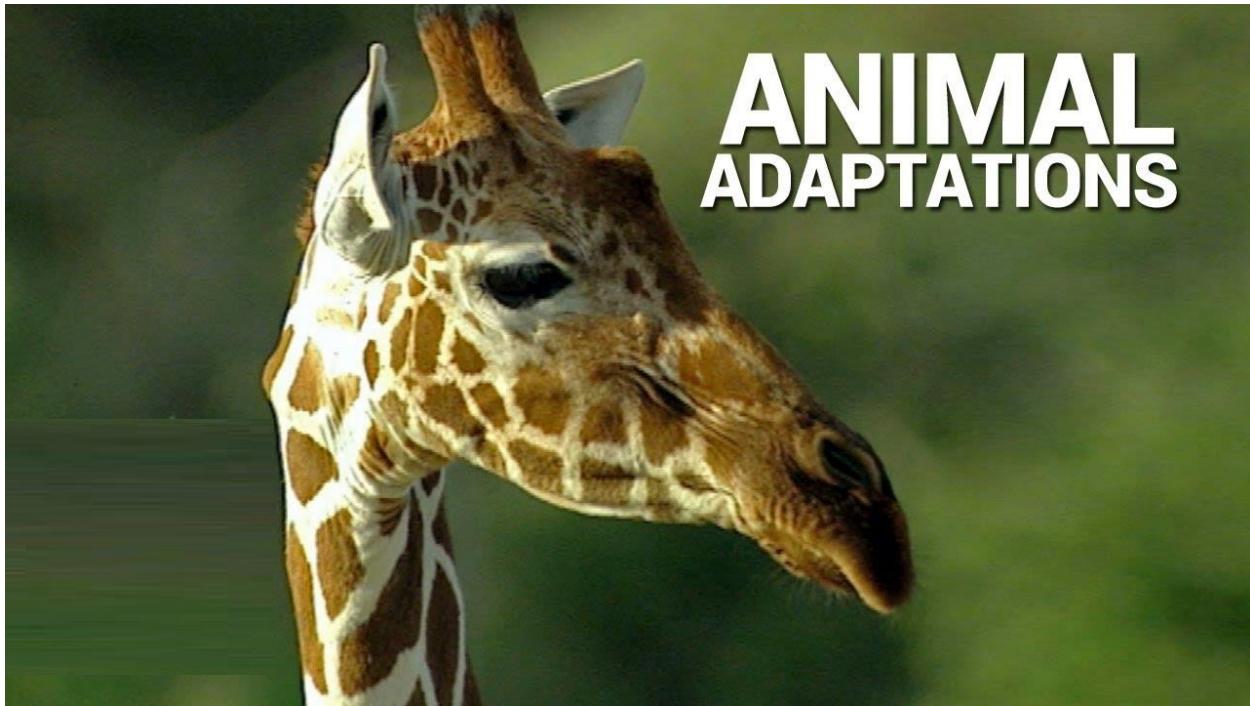
This is real-world, child-directed learning.

They're going to be more into it since they got to pick the topic. They're also going to remember more if they get up close and get that hands-on (or just very up close) experience immediately after doing some research. (For younger kids, you can skip the in-depth research. For older ones, you might have them write a short paper ahead of time.)

A few tips for Zoo Studies :

- Other study ideas include taxonomy / animal classifications, geography (find all of the animals from a certain continent), and animal instincts & adaptations.
- Check the website of your local zoo before going. Many of them have wonderful {free} educational resources up and ready for use.
- Use popular movies to foster interest. For example, after PBS came out with their documentary, and Disney came out with the Sita the Cheetah books, these animals became a favorite topic of interest for the boys.
- Some, but not all, zoos will have an attached aquarium area. Our zoo does not, but we like to use the local aquarium for marine biology lessons.
- There are also animal rescue operations that are perfect for field trips! You will often get a much more personal experience and get to interact with people who are very passionate about what they do.
- Field Trip Worksheets – These are a nice way to have a hand written report about your field trip. There are plenty of options, for all grade levels, [available on Pinterest](#).
- Using a [pre-field-trip Teacher Guide](#) will help direct both you and your children toward a particular topic. You don't even have to go over these with your children, but you should read them ahead of time to get some wonderful ideas! {Here is another good [set of Teacher Guides](#).}





Animal Adaptations

Have you ever wonder why a lizard changes color or a deer can be seen one minute and, when it goes into the woods, it cannot be seen anymore? Over generations, animals have adapted to their habitats to protect them from predators, help them survive harsh weather conditions, and attract mates.

Beaks to pry open food, spots to blend in with their habitat, and feathers that shed water are some examples of animal adaptations. For animals, including people, adaptation is often a matter of life or death! If they don't adapt in certain ways to their surroundings, they will not survive.

Humans even use technology to adapt. Think of the space suits used by astronauts to control their temperature and for breathing so they can survive space travel....how else have humans adapted?

Animal Adaptations Resources :

- [Adaptations & Food Chain lesson](#)
- [Animal Adaptations slide shows \(lots of great visuals here!\)](#)
- [Adaptations video](#)
- [Adaptations video \(older kids\)](#)

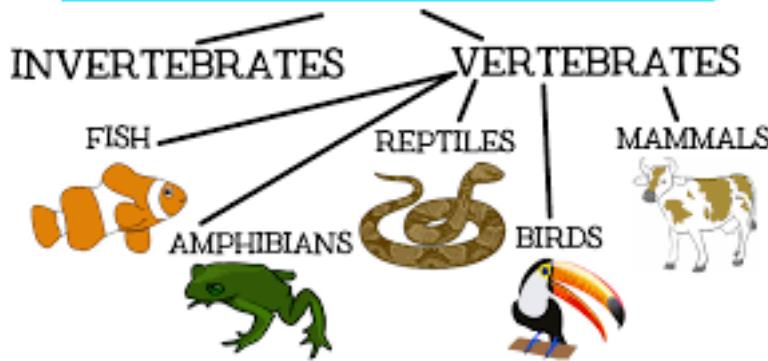


Complete the animal adaptation research project below....

1. Select an animal. _____
2. Answer the following questions with complete sentences and combine them into a paragraph.
 1. What special adaptations does the animal have to help it succeed in its environment?
 2. Are the adaptations a physical part of the animal, or are the adaptations more of a behavior that the animal uses?
 3. If this animal didn't have these adaptations, what problems might it face?
 4. Do other animals in this environment have similar adaptations? Which animals?



ANIMAL CLASSIFICATION



Classification & Taxonomy

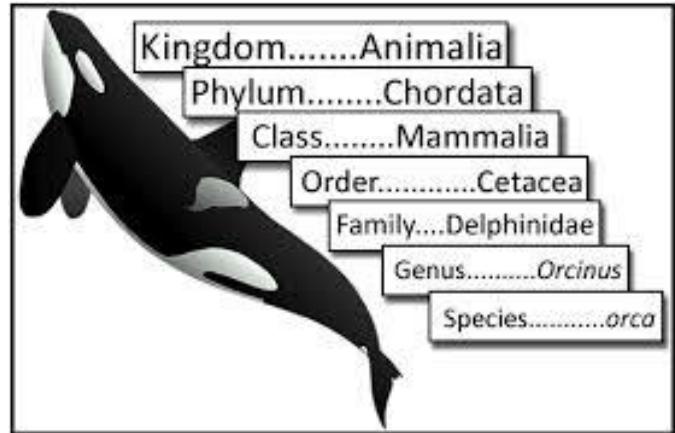
Classification is the arrangement of objects, ideas, or information into groups where the members have one or more characteristics in common. It makes things easier to find, identify, and study.

Scientific classification groups plants and animals based on their characteristics. It uses Latin and Greek words to give each animal and plant two names (similar to a first and last name) that identify it.

Linnaeus created a system that used seven levels of classification. See the example of the orca to the right.

Classification for the American Red Squirrel...

- Kingdom (Animalia, or "animal")
Phylum (Chordata, or "has a backbone")
- Class (Mammalia, or "has a backbone and nurses its young")
Order (Rodentia, or "has a backbone, nurses its young, and has long, sharp front teeth")
- Family (Scuridae, or "has a backbone, nurses its young, has long, sharp front teeth, and has a bushy tail")
- Genus (Tamiasciurus , or "has a backbone, nurses its young, has long, sharp front teeth, has a bushy tail, and climbs trees")
- Species (hudsonicus , or "has a backbone, nurses its young, has long, sharp front teeth, has a bushy tail, and has brown fur on its back and white fur on its underparts)



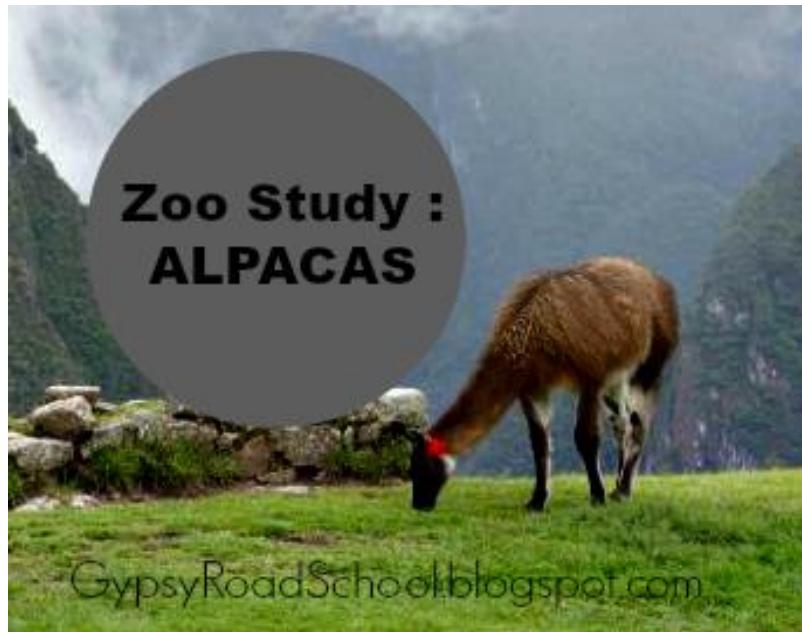
It's not necessary to use all seven levels though; the binomial system (species and genus) is commonly used.

Research Project

1. Choose three different animals.
2. Find out the genus and species name for each.
3. How are your animals similar? How are they different?

Animal Classification Resources :

- Animal Classification lapbook
- Classification activity (younger kids)
- Animal Classification activity pack
- Classification cards
- Classification video
- Classification video (older kids)
- In-depth printable unit for 3rd-5th grade
- Classification Wall Chart (older kids)



Alpacas

Not exactly a ZOO study, but we got to take a field trip to [Just Right Alpacas](#), on a very cold day! The owners, John & Janice Robinson, are just the nicest people you'll ever meet. They taught us all about their alpacas, including how they got into alpaca farming, all about the animals, and how the fibers are harvested and used.

Alpacas are :

- green & sustainable
- herd livestock
- very easy to care for, with minimal shelter
- thrive on a few acres
- produce organic fertilizer
- produce soft, versatile fibers
- are naturally hypoallergenic



Want to know more about these cool creatures? Here are a few pieces of information we've learned:

- An alpaca is a [camelid](#). Other camelids include camels, llamas, vicuñas and guanacos.
- Alpacas are native to South America, especially Peru.
- There are two types of alpacas: Suri and Huacaya. Gia and all the animals we work with are Huacaya. Suris have a different texture of fiber – almost like dreadlocks.
- Alpacas are herd animals, so you really can't and shouldn't keep just one. But you can raise as many as five on a single acre. Interestingly, many alpacas develop particular "friendships" and will make noise if they're separated from their friend.
- An adult alpaca might weigh between about 120 and 200 pounds. Bigger than 200 is Alpaca Diet Time!
- Alpacas eat primarily grass and hay, and in fact, some of the ones from our local farms are used by a nearby farm market in their solar panel field as "grass-mowers!"
- An alpaca is like a cow in that it has a multi-chambered stomach and chews a cud. This helps it get the most nutrition possible even when the foliage they're eating isn't particularly great.



Resources :

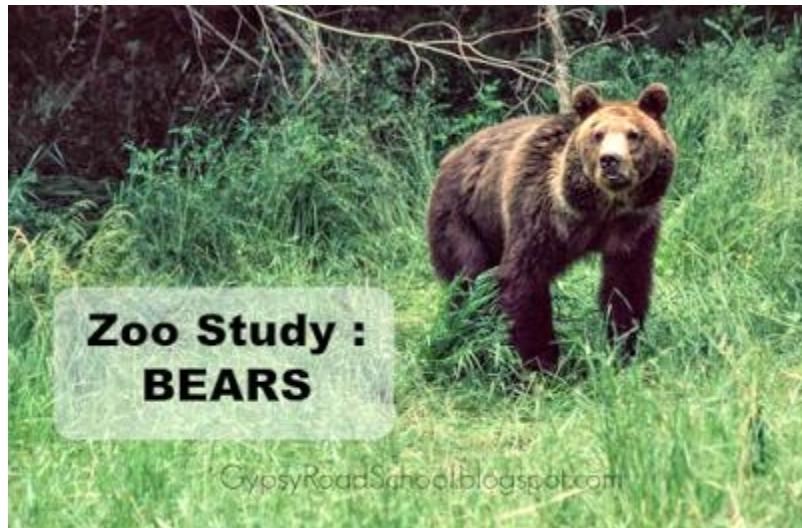
- Alpaca craft
- Alpacas
- The Alpaca that Saved Christmas
- Alpaca Picture Book
- Alpaca : Fun Facts
- Wool Dryer Balls
- Alpaca video
- second Alpaca video

At the end of the day, the kids got to make [wool dryer balls](#) out of alpaca fibers and old pantyhose. It was a neat, easy craft, and we're still using them in the dryer today!



DIY Dryer Balls

- wool yarn or scraps
 - Pantyhose
 - Scissors
1. Cut a leg off the pantyhose.
 2. Stuff it with wool / scraps.
 3. Tie tightly.
 4. Toss one in the dryer with the laundry!
 5. (You can also put a few drops of essential oil onto the wool ball for scented laundry.)



Bears

The bears at the zoo don't really hibernate like the ones in nature, but these guys looked pretty darn cozy.... One of them even graced us with a swim-by!

Before coming to the zoo, we did several of the activities listed before in preparation. Pick and choose the ones that work best for your family as you tailor your visit to a bear study.

All bears have certain things in common. They are big and furry. They have live babies called cubs, which they nurse. They have very powerful legs. They eat a variety of things from nuts and berries to bugs and fish. They all belong to this family:

- Kingdom - Animalia
- Phylum - Chordata
- Class - Mammalia
- Order - Carnivora
- Family - Ursidae



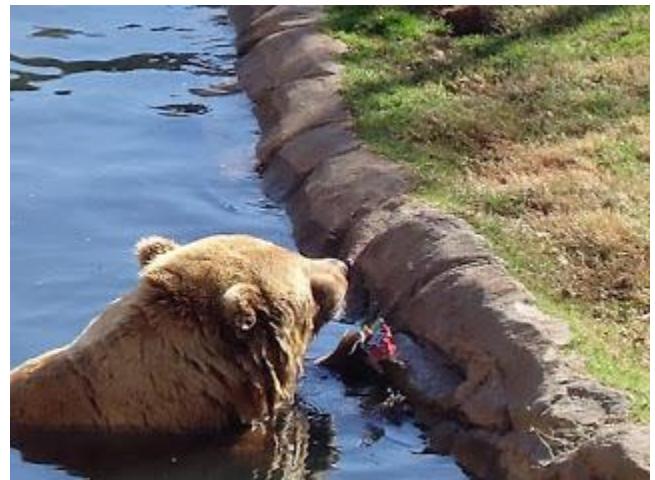
Younger Kids

- Free Bear Lapbook
- Learn about Grizzly Bears
- Bears : Amazing Pictures
- Magic School Bus Sleeps for the Winter
- Disney Nature Bears Activity Pack
- Corduroy
- Paddington & Paddington craft (from RedTed)



Older Kids

- Magic School Bus Polar Bear Patrol & Free Lapbook
- Bear-ology
- DisneyNature Bears DVD
- Magic Treehouse : Polar Bears Past Bedtime
- National Parks : Bear Essentials lesson



Learn About Bears

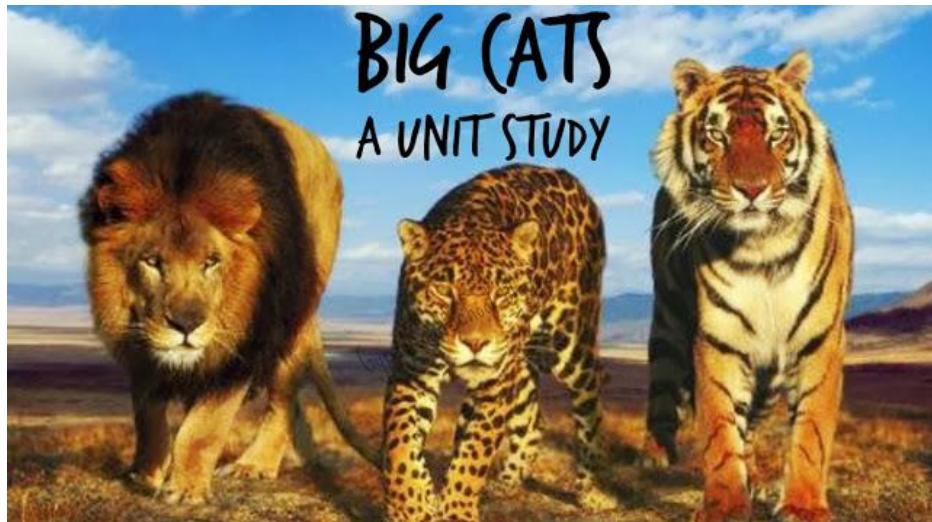
1. How many different kinds of bears are there and what makes each kind special?
 1. Brown and Grizzly Bears- Ursus arctos - Did you know these two bears are really the same species?
 2. Polar Bears - (Ursus maritimus) -Do you like cold weather? Well Polar Bears do! And they have hair that is more like feathers than fur!
 3. Giant Pandas - (Ailuropoda melanoleuca)- These bears were once placed in
 4. the same family as the raccoons!
 5. Asiatic Black Bears - (Ursus thibetanus) -This bears Latin name means "Moon Bear of the Tibet". Why do you think that is?
 6. Spectacled Bears - (Tremarctos ornatus) -Is this bear really wearing glasses?
 7. Sloth Bears - (Melursus ursinus) - This bear's favorite snack is termites. Yum!

8. Sun Bears - (*Helarctos malayanus*) - This bear is the smallest and is also called the Honey bear.
2. Label a map with the areas each bear lives in. Use a different map or color for each species of bear.
3. Find out who the Teddy bear is named after. (Theodore Roosevelt) Why is the teddy Bear named for him?

Watch the following videos, and then use the comprehension questions below.

Bears video 1 & Bears video 2

1. Name three ecosystems in which brown bears live. (Answer: *Rivers, meadows, and forests*)
2. What else do brown bears use their sense of smell for besides sensing danger? (Answer: *Communicating with other bears*)
3. List three of the things brown bears eat. (Answer: *Sedge grass, flies, salmon*)
4. What skills do brown bear parents teach cubs? (Answer: *Survival, hunting, and how to find shelter*)
5. What animals often live in the same ecosystems with brown bears? (Answers include: *Squirrels, wolves, deer, fish, bald eagles*)
6. How did the grizzly bear get its name? (Answer: *Because the silver tips on its fur give it a "grizzled" appearance.*)
7. What features set a grizzly bear apart from a black bear? (Answer: *Grizzly bears have a large hump on their shoulders right behind their heads. Grizzly bears have claws that are twice as large as the black bear's. Grizzly bears have curved profiles, while black bears have straighter profiles.*)
8. What does a grizzly bear use its muscular shoulder hump for? (Answer: *For help in digging up their food.*)
9. How fast can a grizzly bear run? (Answer: *Between 35 and 40 miles an hour.*)
10. How much can a grizzly bear weigh? (Answer: *Up to 700 pounds.*)
11. Does a grizzly bear eat a lot of meat? (Answer: *No, 85% of its diet consists of vegetables.*)
12. How much distance does a grizzly bear travel in a day? (Answer: *Up to 20 or 30 miles.*)

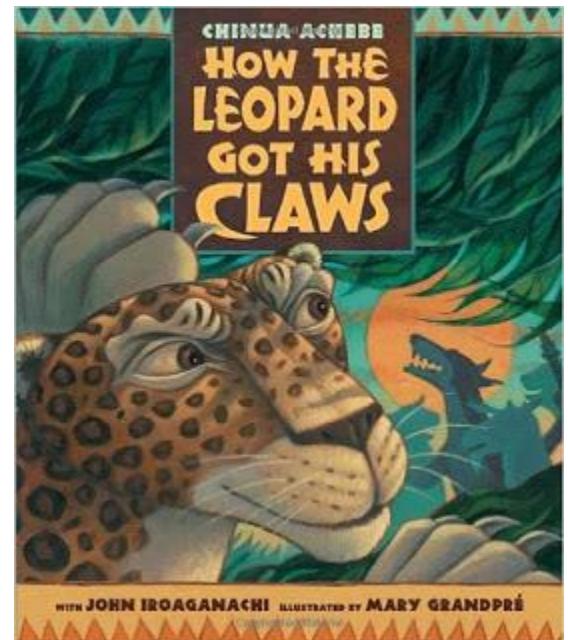


Big Cats



Books

- A Boy & a Jaguar
- Lions at Lunchtime
- Mr. Tiger Goes Wild
- I Can Lick 30 Tigers Today!
- The Tiger Rising (older kids)
- How the Leopard Got His Claws
- National Geographic Kids : Big Cats
- In Search of Lions, Leopards, Cheetahs, and Tigers



DVDs

- PBS Nature : Big Cats
- The Lion King
- Between the Lions
- Wild Kratts episodes



Lapbooks

- Cats
- Tigers
- Lions
- Cheetahs

Crafts & Fun

- Cheetah Mask
- Lion Face
- Full Tiger
- Coloring Pages : Leopard & Jaguar
- Big Cats Safari
- Baby Jaguar

Online Resources

- Wild About Animals : Big Cats
- National Geographic (several resources, broken down by grade)
- How to Identify Big Cats
- Big Cat Rescue youtube channel
- Big Cats video
- second Big Cats video

*Family pass to the zoo? \$55 Lunch out? \$35
Watching the boys all getting along at the same
time...priceless!!*





Flamingos

Flamingos are birds. They have bright pink feathers and long, skinny legs. Flamingos are very lightweight--they typically weigh between 4 and 8 pounds, which is about as much as a human baby!

As we mentioned, they're often seen standing on one leg. In fact, they sometimes do this for hours at a time, even when it's very windy, and scientists aren't quite sure why they do it.



Where Do Flamingos Live?

In the wild, flamingos live in places with warm weather, and they can usually be found near lakes and rivers. Flamingos like to live together in groups called colonies, and staying with other flamingos helps keep them safe. They do lots of their hunting and eating with their heads in the mud, so the other flamingos keep watch and protect the flamingo with its head down!

What Do Flamingos Eat?

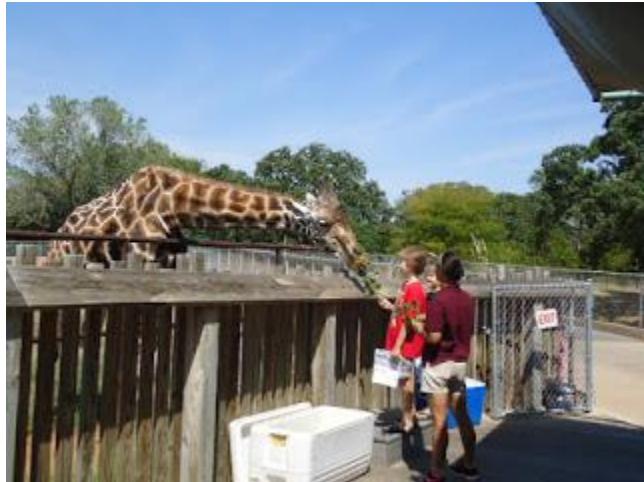
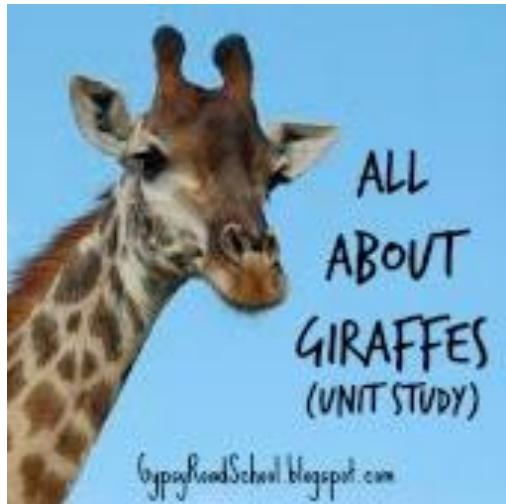
Flamingos are omnivores. This means that they eat both plants and animals. They eat lots of shrimp, and the pink color of the shrimp turns their feathers pink! If flamingos live in zoos or somewhere that they are fed by people, they don't turn pink unless people feed them shrimp!

These birds also like to eat algae, plankton, and insects. When a flamingo sees food that it wants to eat, it puts its head under the water, twists its neck so its head is upside down, and uses its beak to scoop up the food.



Resources :

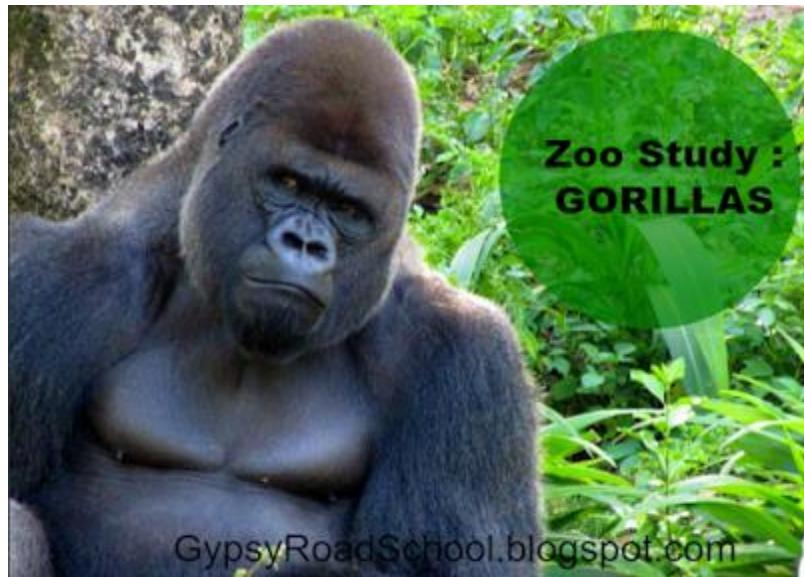
- [Flamingos](#)
- [If I Knew a Flamingo](#)
- [Mingo the Flamingo](#)
- [Flora and the Flamingo](#)
- [Free Lapbook](#)
- [Coloring Page](#)
- [Flamingos : Dancing Birds](#)
- [Flamingo craft \(younger kids\)](#)
- [Flamingo craft \(older kids\)](#)
- [Flamingo video](#)
- [second Flamingo video](#)



Giraffes

Since the park was empty, the two zookeepers spent about an hour talking to the boys about giraffes, the different species, their life cycle, and just all sorts of great facts! They let them help feed these big guys...and we learned that **they spend 23 hours of each day just eating!**

- San Diego Zoo - Giraffe Page
- Giraffes lapbook
- How to Draw a Giraffe
- Coloring Infograph
- The Giraffe that Walked to Paris & lapbook
- Cut & Fold Giraffe
- G is for Giraffe (preschool unit)
- Coloring Page
- Giraffes video



Gorillas

Gorillas are a type of animal called an ape, which is a large primate that lacks a tail. 'Primate' basically means that gorillas are mammals that have hands, feet, and a big brain. That means you're a primate, too!

Gorillas have fur that is usually black or gray. There are four different kinds of gorillas, and each kind looks a little bit different. Male gorillas have silver fur on their backs. Because of this, adult male gorillas are called Silverbacks!

They are usually about 6 feet tall, which is as tall as a tall adult! Gorillas have arms that are longer than their legs, and sometimes they walk on all fours. This is called knuckle walking!

Where Do Gorillas Live?

Gorillas live in forests and swamps throughout Africa. They make their own nests using leaves and branches and they make a new nest to sleep in every night. That is a lot of work! They live on the ground in groups of 6 to 12 gorillas.

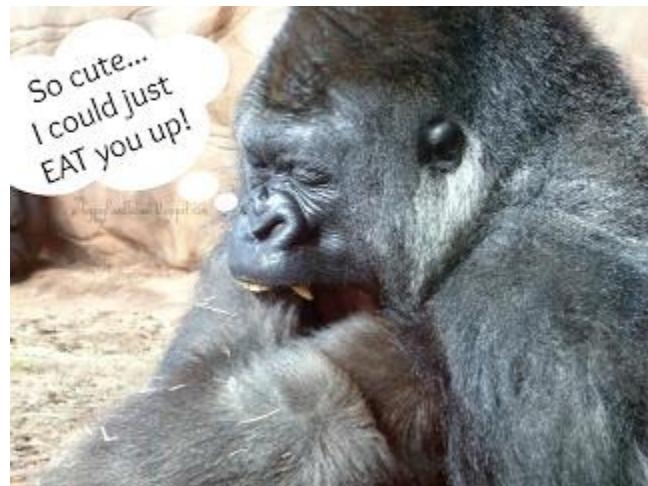


What Do Gorillas Eat?

Gorillas eat a lot of food! They can eat as much as 66 pounds of food every day. That is about as much as a kid weighs! Gorillas are herbivores, which means that they only eat plants. They are vegetarians! They eat fruits that grow in the rain forest, and they also eat bamboo and celery. Gorillas do not need to drink water because they get water from the food that they eat.

Resources :

- [Good Night, Gorillas](#)
- [Free Lapbook](#)
- [Zoo Cage activity](#)
- [Lego activity](#)
- [Gorilla handprint craft](#)
- [Good Morning, Gorillas \(Magic Treehouse\)](#)
- [Little Gorilla](#)
- [Gorillas](#)
- [Gorillas video](#)
- [second Gorillas video](#)
- [third Gorillas video](#)





Meerkats & Macaws

This was our first zoo study, and I was expecting elephants, giraffes, maybe the new baby hippo....but we got meerkats and macaws instead. Yay for creativity!

Meerkats

Meerkats are burrowing animals that live in the desert habitats of southern Africa. They make their homes out of abandoned burrows dug by other animals. While they are day animals, they usually take a siesta during the hottest part of the day.

They live in large families, and the females are the leaders. Older family members have more influence over the family's activities. They forage for insects, small reptiles, eggs, and scorpions for their food. They don't drink much, but get their water from roots and other food.



Every family member has a job, and they all work together for survival. Some of the jobs include:

- Babysitters - watch the younger members of the family
- Sentinel - watch for danger, and use alarm calls to tell when there is danger. They have a different call for every type of predator!!

Macaws

Macaws are the largest parrots in the world - they can be up to 33 inches long! They have featherless faces with bright colors covering most of the body, wings, and tail. They live in warm, humid climates, like the rainforest, and prefer to stay in large family groups.

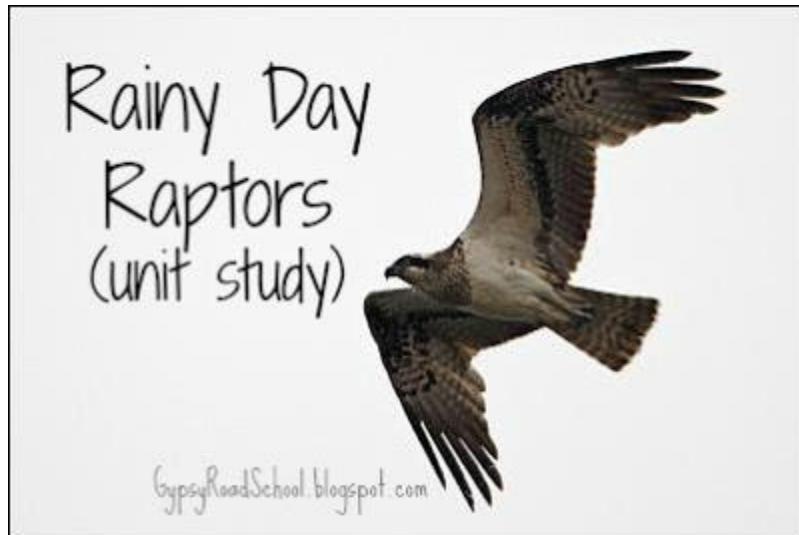
They have strong beaks for breaking open hard nuts found in the rainforest. They also eat leaves, berries, and seeds. They have the ability to eat fruits that would normally be toxic to humans and animals. Some people think that it is because they also eat clay, which may neutralize the poison.

Macaws are becoming endangered because: 1) people trap them for pets and 2) the destruction of the rainforests.



Meerkats & Macaws Resources

- [Meerkat Lapbook & Unit](#)
- [Meerkat Mail](#) (younger kids)
- [Meerkat's Safari](#) (younger kids)
- [Mystery at Meerkat Hill & Meerkat Hill unit study](#) (older kids)
- [Rio movie](#)
- [Learn about Macaws](#)
- [Parrot Tico Tango & lapbook](#)
- [Meerkat video](#)
- [Macaw video](#)



Raptors

Tucked into the hills of southwestern North Carolina, a magical forest lies full of eagles, hawks, owls, falcons, and their raptor cousins. [Carolina Raptor Center](#), in Huntersville, is dedicated to the conservation of birds of prey through education, research, and raptor rehabilitation.

Within a small one-mile loop, we were exposed to hundreds of different species of raptors. We spoke with their caretakers about the birds' history (many were orphaned or injured), the rehabilitation process, and everyday needs of a raptor.



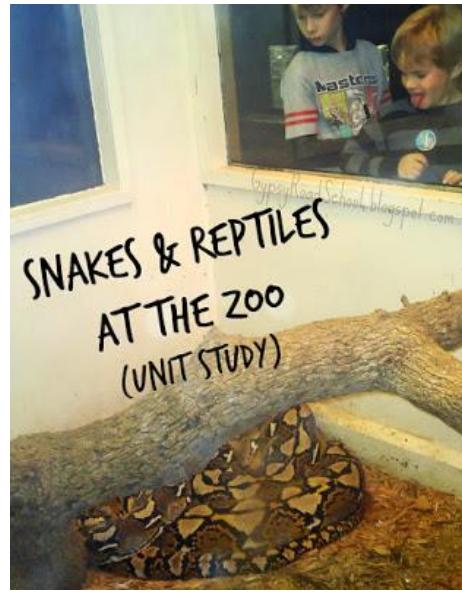
The boys' favorite stop was the Owl Forest...a Harry-Potter themed section of the loop devoted to several different species. We have a barn owl at our home that they enjoy "talking to," and they spoke with the barn owls here, too! The gift shop, of course, is always a favorite stop...and this one has some cute handmade crafts, like these eagle wings!

Raptors Unit Study

- Lego Fierce Flyer
- Raptors of North America : guide
- Eagles lapbook
- Soaring with the Wind
- Hawk, I'm Your Brother & lapbook
- Owl Babies & lapbook
- All About Owls
- The Boy Who Drew Birds & lapbook
- Wild Kratts – Raptor Roundup
- Super Predators video
- About Raptors video



This is one of those times where Legos can be used for learning!



Snakes & Reptiles

As the mother of sons, I've long since resigned myself to the fact that every single trip to the zoo comes with a stop in the Herpetarium. It would be a much smaller deal if I weren't so terrified of slithery, creepy, crawly things....

Zoo & Snakes unit study :

- A Crazy Day with Cobras
- Crazy Day Cobras unit study
- See-Through Reptiles
- Explores the World of Animals
- Zoo unit study (younger kids)
- Snakes lapbook (younger kids)
- Snakes crafts
- Snake life cycle
- Snake lapbook (older kids)
- Snakes & Reptiles (video)
- Giant Snake video
- Rattlesnake dissection video



HEAD:
narrow, barely
distinguishable
from neck

NON-VENOMOUS SNAKES



BODY:
relatively
thin or
narrow

TAIL:
tapers to a
long, thin
point (usually),
NEVER with
rattles

VENOMOUS SNAKES (Rattlesnakes)

HEAD:
broad,
“triangular”



BODY:
heavy or
relatively
“fat” in
appearance

TAIL:
blunt, usually
ending in a cluster
of modified scales
– the “rattle” –
(except in baby
snakes); never
tapers to a thin
point

How to tell if a snake is venomous.*

Triangular head



venomous

Rounded head



non-venomous

*This rule does not apply to coral snakes and many cobras.

Fossils & Dinosaurs

What happens to the animals after their time? They become bones!

Bones are a fascinating topic in this house. Whenever we find a dead animal on the property, the first thing that the kids want to do is dissect it and check out its bones (*which occasionally gets to happen, depending on safety*).

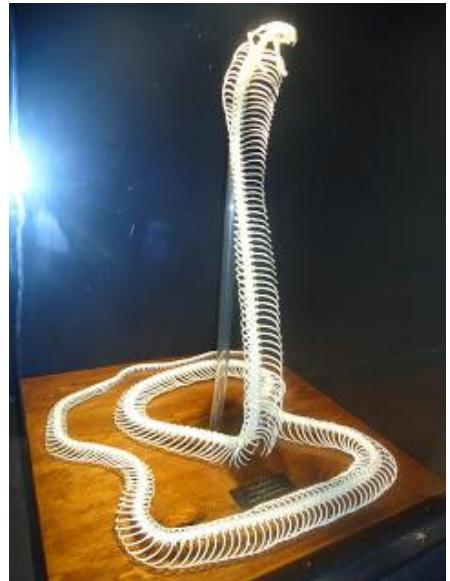
When we go for nature walks and stumble across a bone, it comes home with us until we can identify it. Once, my son actually found a fossil, which after much deliberation, a museum told him was a megalodon tooth!

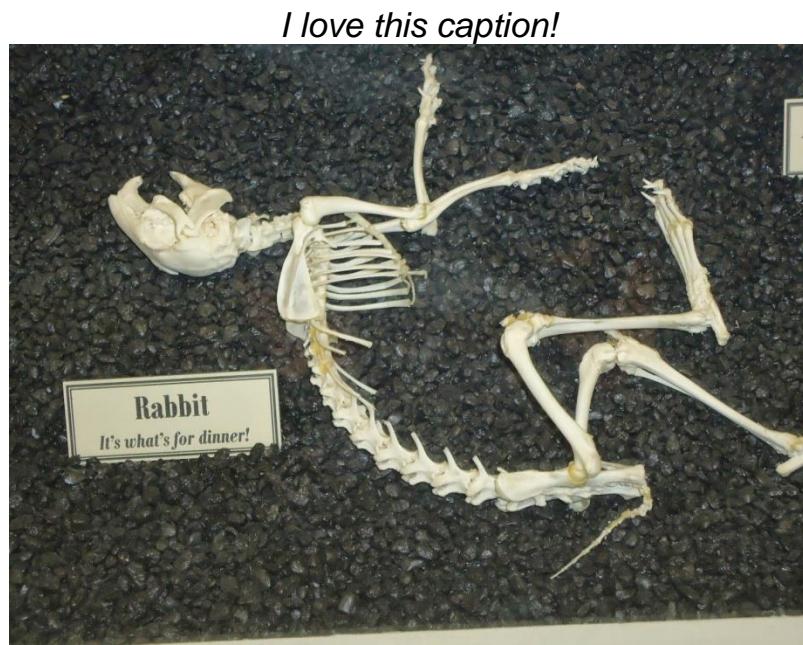


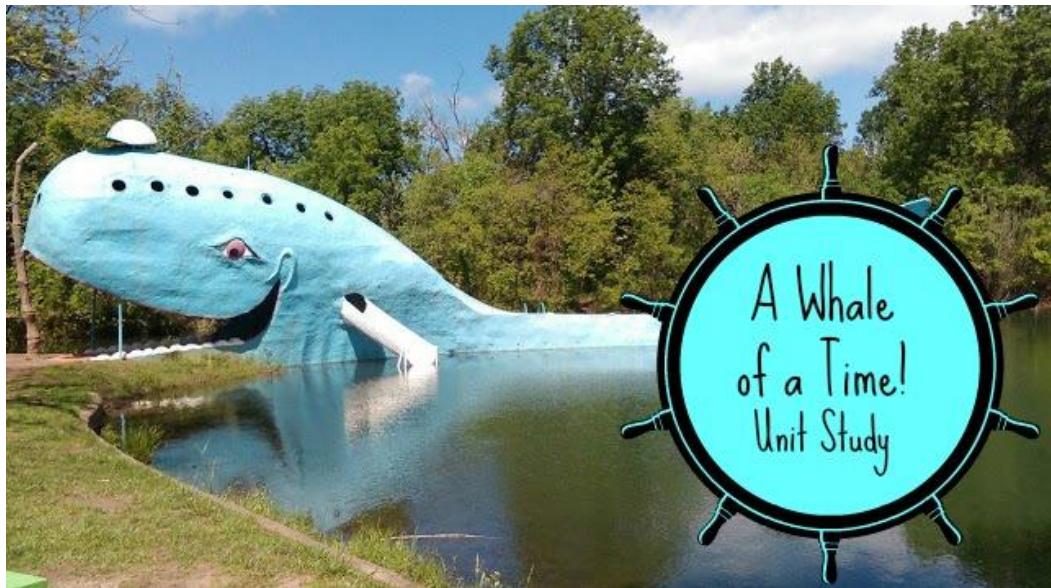
The [Osteology Museum](#) in Oklahoma City is the largest collection of bone-related exhibits in America. Its unique exhibits are a great tool for teaching anatomy, biological history, adaptation, or classification.

Dinosaurs & Fossils

- [Smithsonian Handbooks: Rocks & Minerals](#)
- [Time Train](#)
- [Dinosaur Detectives](#)
- [Dinosaurs Before Dark](#)
- [Dinosaurs Before Dark \(Magic Tree House\) unit study](#)
- [The Magic School Bus in the Time of the Dinosaurs](#)
- [In the Time of the Dinosaurs \(Magic School Bus\) unit study](#)
- [Dinosaurs unit study \(younger\)](#)
- [Dinosaurs unit study \(older\)](#)
- [Dinosaur Cove Collection - 10 books set](#)
- [The Magic School Bus kit: Back in Time with the Dinosaurs](#)
- [X is for X-ray lapbook \(younger\) \(free\)](#)
- [Bill Nye - Fossils](#)







Whales

This field trip was born out of our trip down Route 66 in Stroud, OK. We decided since we had done a portion of Route 66, why not try to do the entire stretch? With each trip, I choose a 30-45 mile stretch, and I choose which sites to see based on history and preservation. I try to explain to the kids just how important it is to take care of these things so future generations can enjoy them as well.



Preserving history is such an important part of education because history makes up so much of our education. When you read for Language Arts, you read many historical stories; when you practice spelling words, the lessons often come from history (ours do, anyway); everything has a history and we want to pass that down to future generations!

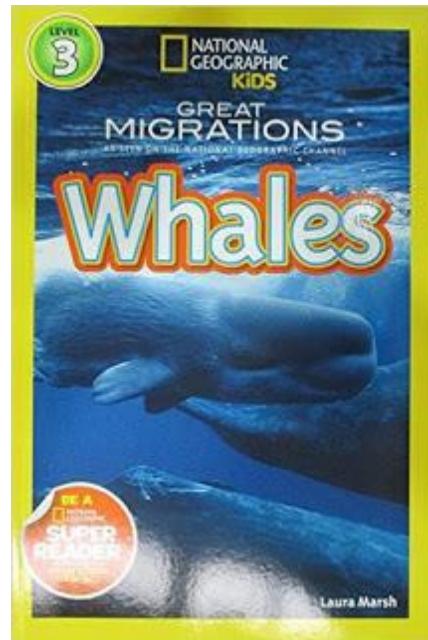
The Blue Whale in Catoosa, OK used to be a water park; the whale, along with a few other pieces, have been salvaged and preserved and are now quirky Route 66 landmarks.

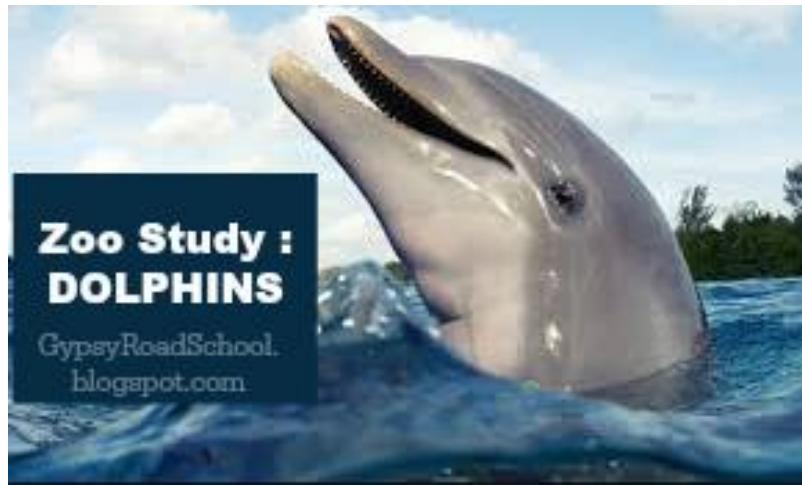
This whale is the reason the kids wanted to take this trip! We drove east to Catoosa, and moseyed our way home from there stopping to see sights along the way. Again, another thing we want to see preserved! Preservation of history is key for education!



Whales Unit Study

- Magic School Bus : Wild Whale Watch & Lesson Plans
- National Geographic : Whale Migrations
- Magic Treehouse : Dolphins at Daybreak
- Whales lapbook
- Blue whales reading comprehension
- Sharks & Whales play set
- Orcas & Whales lapbook
- Whale Rider dvd
- Make a Whale Mobile
- Whales, Dolphins & Porpoises
- Whales : An Unforgettable Journey
- BBC Humpback Whales video
- Whales video
- Octonauts Whales video
- Humpback whale craft
- Egg carton whale craft
- Sock whale craft





Dolphins

During our trip to Cabo San Lucas, the oldest, who has had an interest in marine biology for some time now, had the opportunity to take a full-day Dolphin Training course at the local marine center.

Facts About Dolphins:

- Dolphins are mammals, they breath air, feed their young milk, are warm blooded, and have hair on their bodies.
- Dolphins make clicking and squealing noises to communicate. You can approximate a dolphin's whistles with a balloon by letting the air out slowly with the neck stretched.
- Dolphins like humans and can be trained to do everything from tricks in an aquarium to carrying the mail for underwater research labs. Some dolphins have been trained to swim with handicapped children.
- Dolphins can stay under water for fifteen minutes at a time.
- If a dolphin gets sick or injured, other members of its family help it swim and get breaths of air until it can swim on its own.
- Dolphins work together to protect the group from predators like sharks.
- Dolphins use echolocation to find food.
- Dolphins eat fish and squid.

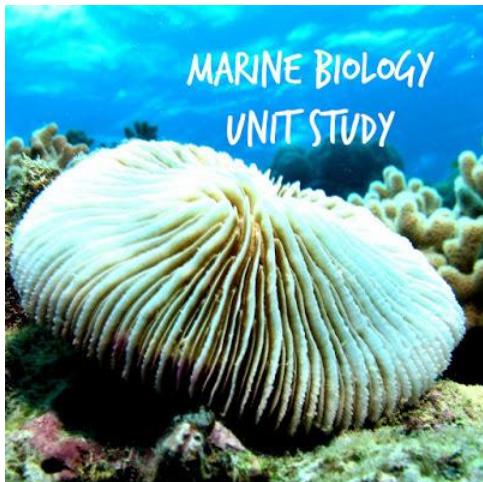


- Dolphins are really interesting mammals, especially when it comes to their interactions with humans. They are incredibly friendly and trainable, so we can observe them and their behaviors. They are used by the military to find mines, by many resorts that allow you to go swim and interact with them, and by Sea World and other similar attractions for shows. They do amazing tricks.

Resources :

- [Free Dolphin Lapbook](#)
- [Dolphins](#)
- [Step into Reading : Dolphins](#)
- [Dolphins at Daybreak](#) (Magic Treehouse)
- [Dolphins & Sharks](#)
- [Dolphin Fact Sheet](#)
- [Coloring pages](#)
- [Winter's Tail & Lesson Plans](#)
- [Hitchhiker's Guide to the Galaxy](#)
- [Dolphin Tale / Dolphin Tale 2](#)
- [Dolphin video](#)
- [second Dolphin video](#)
- [third Dolphin video](#)





Marine Biology

Ecola Beach State Park was used in the first *Twilight* movie, the *Goonies*, and *Kindergarten Cop*. It's also where our Marine Biology unit study is set!



The tidal pools were teeming with life. More starfish and sea stars than we could count, beautiful purple and yellow razor clams and even the occasional crab and jelly. The beach there is very flat which makes the tide changes quick and dramatic. The coolest life is found on the seaward side of the rocks where the retreating waves create depressions in the sand that stay full of sea water and support the mini ecosystems there.

Younger Kids

- Marine Biology Coloring Book
- Hands-On Science Kit (pictured aside)
- Bob and Shirley : A Lobster Story
- Giant Squid: Mystery of the Deep
- First Encyclopedia of Seas & Oceans
- The Wild Whale Watch
- Dolphins at Daybreak & (Magic Tree House) unit study
- Dark Day in the Deep Sea & (Magic Tree House) unit study
- Pagoo & Pagoo unit study (free)
- Night of the Moonjellies & Night of the Moonjellies unit study (free)
- The Great Shark Escape & unit study (free)
- Shark unit study (free)
- Sea Turtles unit study (free)



Older Kids

- Complete Marine Biology course
- Marine Biology Study Chart
- Draw 50 Sharks, Whales, and Other Sea Creatures
- Marine Biology video





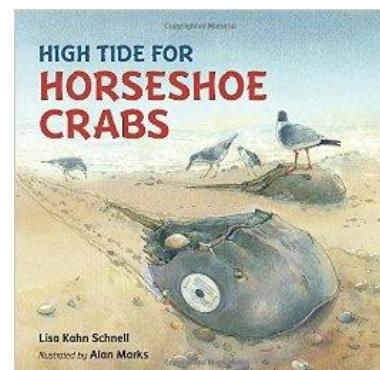
Horseshoe Crabs

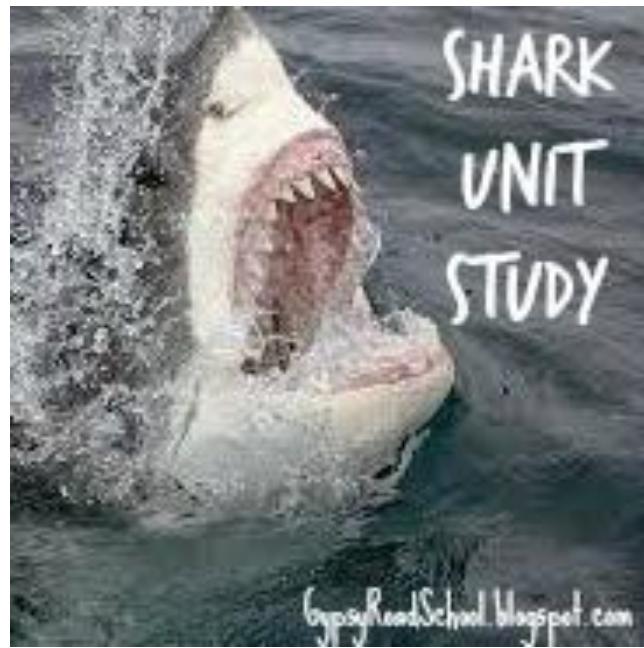
At the [Virginia Living Museum in Newport News](#), living exhibits depict Virginia's natural heritage from the mountains to the sea. Visitors experience animals native to Virginia in habitats, discovery centers, and interactive exhibits. There are hands-on exhibits, and the docents are fabulous with the kids! The trail is nicely laid out, and easy to navigate, even on rainy days. Before you go, make sure to pick up a [museum study guide](#) (choose your grade) to turn this trip into an even-more-educational field trip!



Learning about horseshoe crabs at the Living Museum - the docents encouraged hands-on learning and showed us many different specimens.

- [Horseshoe Crabs & Shorebirds & free lessons](#)
- [High Tide for Horseshoe Crabs](#)
- [Crab Moon](#)





Sharks

July turned into Ocean Month at Gypsy Road. It's the month we stayed at home, in the middle of the continent, so the ocean seemed the logical topic of study.....

Shark unit study :

- National Geographic Readers: Sharks!
- Shark ABC cards (free)
- Shark number cards (free)
- Shark preschool unit (free)
- Shark mask (free)
- Shark pack - part 1 (early elementary) (free)
- Shark pack - part 2 (early elementary) (free)
- Shark unit - 1st - 3rd grade (free)
- Paper plate craft (free)
- Magic School Bus - Shark Adventure (Level 2)
- Magic School Bus - Great Shark Escape
- MSB Great Shark Escape lapbook (free)
- Shark word search (free)
- Sharks video

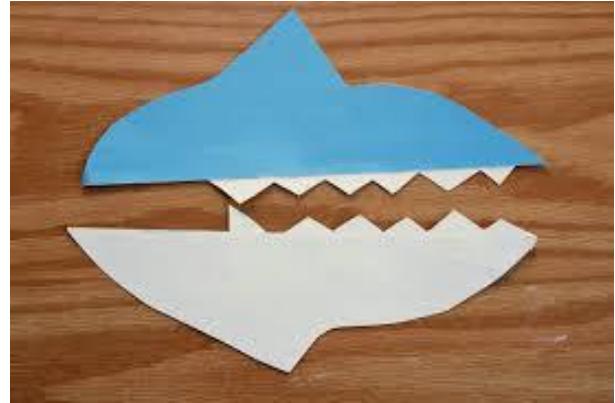


- second Sharks video
-and, if they're up to it, **Jaws**

How to make a clothespin shark

You will need:

- 1 clothespin
- blue paint
- paint brush
- 1 blue googly eye
- silver glitter glue
- blue adhesive foam
- white adhesive foam
- glue
- scissors



1. Cover an entire wooden clothespin with blue paint, make sure to get all the little nooks and crannies.
2. When dry glue a blue googly eye on the top edge of the clothespin.
3. Below the eye, use the silver glitter glue to make three pointy shark teeth.
4. For the shark fins cut two triangles from the corner of an adhesive blue glitter foam sheet.
5. Attach one fin at the top and one on the bottom.

- Harry Horseshoe Crab
- The Crab from Yesterday : Life Cycles
- Project Oceanography : Horseshoe Crabs
- Build a Horseshoe Crab (game & activity sheets)
- Origami Horseshoe Crab - [page 1](#) & [page 2](#)
- Toy Horseshoe Crab
- Elementary Marine Biology unit
- Lessons from a Living Fossil plans (secondary)
- Horseshoe Crabs video

