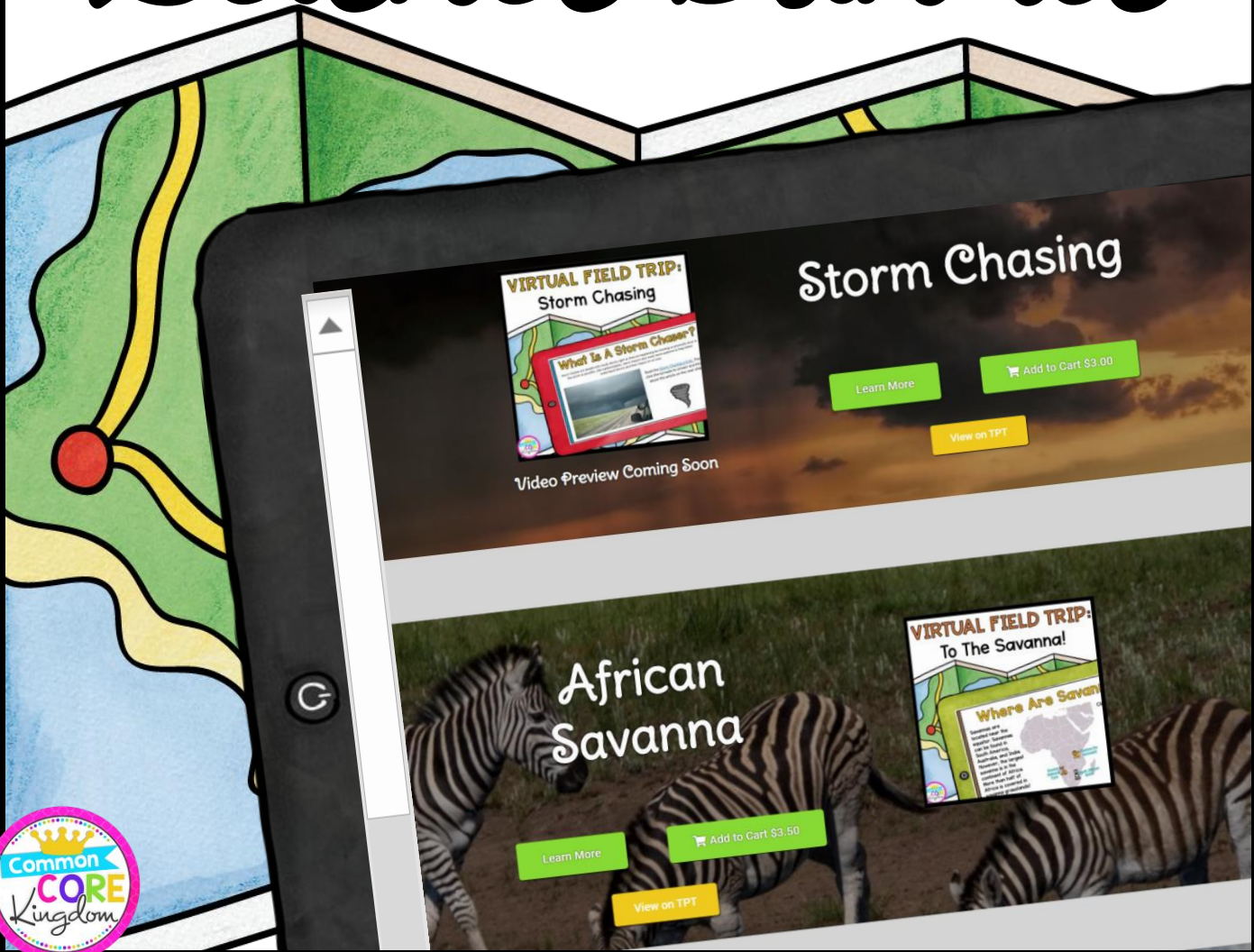


VIRTUAL FIELD TRIPS: *Science Bundle*



VIRTUAL FIELD TRIP:

Dino Dig!

PREPARE FOR TAKEOFF!

Watch the video. Create a caption for each picture, using details from the video.



Get ready to dig! Now that you know what a paleontologist does, let's find some fossils! Use the map on the next slide to find your first dig site.



Aligns with NGSS

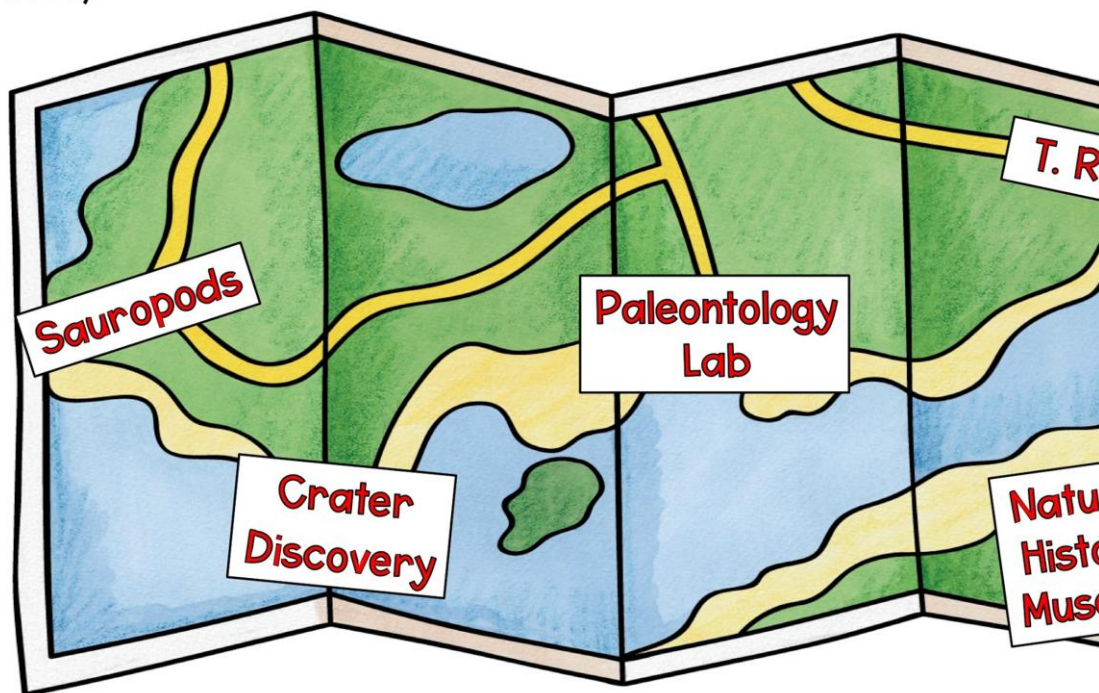
LS4.A: Evidence of Common Ancestry and Diversity

- Some kinds of plants and animals that once lived on Earth are no longer found anywhere. (Note: moved from K-2) (3-LS4-1)
- Fossils provide evidence about the types of organisms that lived long ago and also about the nature of their environments. (3-LS4-1)

Integrated Map

Click on a site & collect the stickers as you move through the dinosaur dig. Cut them from each destination (Ctrl + C) and paste them here on your map (Ctrl + V).

Din



Reading Exercises

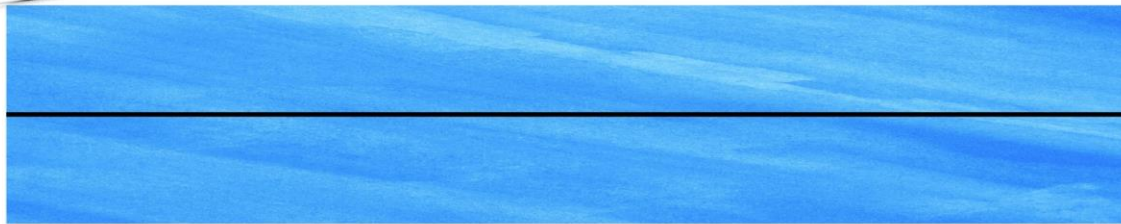
Let's Explore!: Tyrannosaurus Rex

Directions: Watch the video. Read the text. Create a timeline of T. Rex's discovery.

The earliest Tyrannosaurus skeletons were found in 1902 by Barnum Brown. [Fairfield Osborn](#), president of the [American Museum of Natural History](#), named the species *Tyrannosaurus rex* (meaning "tyrant lizard king") in 1905. The most complete skeleton was found in 1990 in [South Dakota](#). It was named "[Sue](#)" after its finder, [Hendrickson](#). The [fossil](#) was auctioned off in October 1997 for \$8.36 million. The highest amount ever paid for a dinosaur fossil. Jane is a [fossil](#) found of a small tyrannosaurid. This skeleton was found in southern [Montana](#) in 2001.



Tyrannosaurus Facts for Kids, Kiddle Encyclopedia.



Integrated Multimedia

Let's Explore! : What is a museum

Directions: Watch the video. Record your thinking.



Have you ever been to a museum? If so, describe it.

What kind of museum would you like to visit?

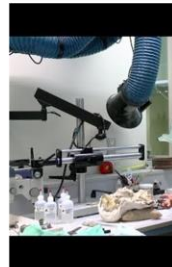
How do museums help you understand your world?

Writing

Let's Explore! : At the Fossil Lab

Directions: Watch the video to see what happens to the fossils after they are taken from the

Pretend you are a fossil preparator. Describe what one day at your job looks like.
What do you do? What do you see?



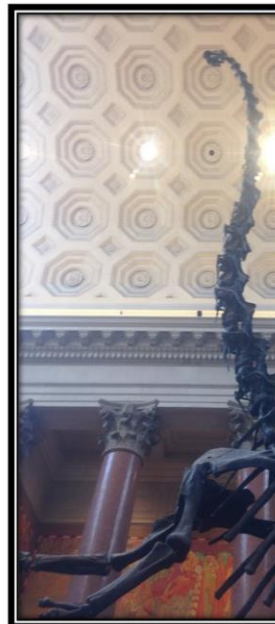
Critical Thinking Skills

Let's Explore! : Sauropods

Directions: Analyze the picture. Record your thoughts.

What do you notice?

What do you wonder?



VIRTUAL FIELD TRIP:

To The Ocean!



Science Aligned



Science Based: Aligned to NGSS

LS4.C: Adaptation

- For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3)

LS4.D: Biodiversity and Humans

- Populations live in a variety of habitats and change in those habitats affects the organisms living there. (3-LS4-4)

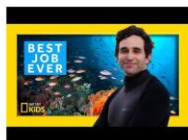
Integrates Reading

* So you want to be a marine biologist

Come along for an exploration through the Earth's five oceans. You will research and discover plants and animals along the way. Read below to learn more about your job description. Grab some equipment you will need for your dive!

Marine biologists study life in the ocean. Learning about and studying the oceans on Earth is so important because our world is made up of more than 75% water. Below the ocean's surface there are so many diverse species that have yet to be discovered. Using the latest technology, such as submarines, satellites, and robots, marine biologists are able to explore parts of the ocean that most have never seen before.

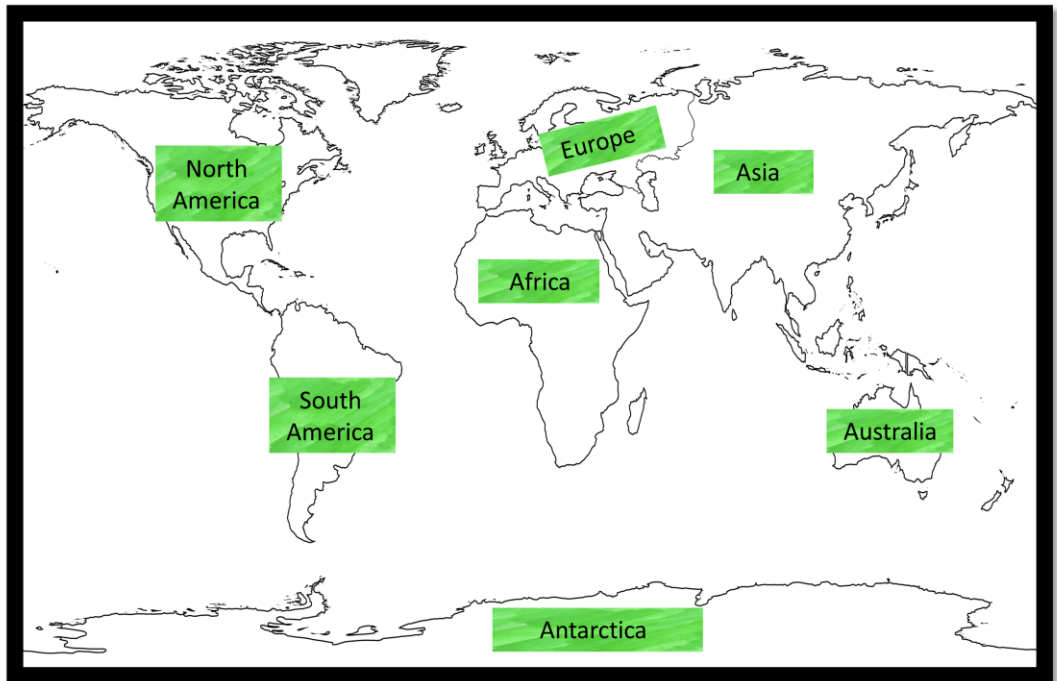
In order to understand how animals thrive in their habitat, scientists study their adaptations. Adaptations are the features a living thing has that allows it to survive. Some adaptations are physical, such as body shape, eye sight, or coloring. Adaptations can also be behavioral, such as staying in groups, migrating in winter, and hunting techniques.



Unfortunately, there are many species of life in the ocean that are endangered, or in risk of becoming extinct. Marine biologists work to understand the changes happening in their habitats that are affecting them. The ocean and the organisms that live in it depend on one another, so we must all work together to save the largest part of our world.

Interactive Map

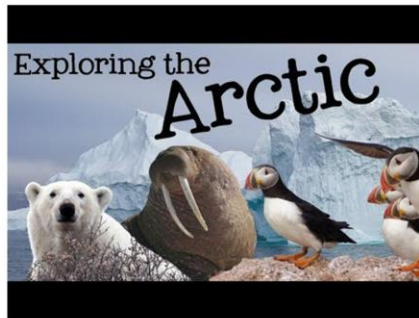
Let's Explore! : Earth's Oceans



Incorporated Multimedia

Let's Explore!: Arctic Ocean

Directions: Watch the video to learn about some animals that can be found in the Arctic Ocean. Answer the questions using details from the video.



What behavioral adaptations do the humpback whales



What physical adaptations do the walrus have that



Click the picture to read more about whale & walrus blubber.



Writing Exercises

Research Notes

Based on your research of the Earth's five oceans, summarize below what you learned about the ocean habitat and the amazing adaptations that the ocean's living things have.



VIRTUAL FIELD TRIP: To the Dog Sled Race!

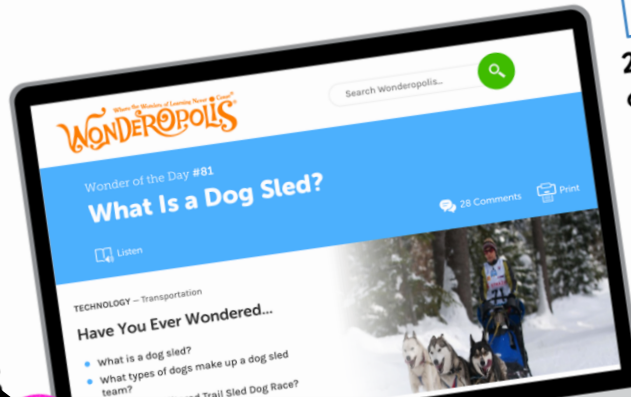
What Is a Dog Sled

Click the computer to visit [Wonderopolis](#) and learn all about d
Then, answer the following questions:

1. How did people once rely

2. What is the name for a
dog sled?

3. Describe the roles of
of sled dogs.



Science Aligned



Integrates Reading

Dog Sled Racing

Dog sled racing is a popular sport and pastime around the world. Teams of dogs and mushers race across extreme conditions to see who can cross the finish line first. Dog sled teams travel many miles for days before crossing the finish line.

In the United States, many dog sled races are held in the state of Alaska. Because of the extreme conditions needed for a dog sled race, most states cannot host dog sled races. However, other northern states in the United States, such as Wisconsin, Maine, and Michigan, host dog sled races during their winters.

Dog sled racing also takes place around the world. Other countries known for dog sled racing include Canada, Russia, Norway, and Sweden. These countries are all located in the northern hemisphere where there are weather conditions ideal for dog sledding.



Integrated Map

Alaska



Alaska is the northernmost State. Alaska is bordered by Canada.

Because Alaska is located in the northern hemisphere, it has long winters for most of the year. The heavy and frequent snowfall makes Alaska ideal for dog sledging.

Fun Facts About Alaska

Science: Force & Motion

Sled Dog Science

A **force** is an interaction that depends on the relationship between objects. Push and pull are common types of forces.

Sled dogs are connected to the sled and to each other by strong harnesses, which are worn around the dog's entire body. The relationship between the sled and the dogs allows the sled to be put into motion by the pulling of the dogs as they run. The sled is controlled by the force of the sled dogs pulling the sled.

When an object is **at rest**, it means the object is not moving. However, there are still forces acting upon the object. When sled dogs stop moving, the sled will also stop moving and will be at rest.

Watch the video to learn more about forces and motion!



Writing

Write a Journal Entry!

Make sure to answer the fol

- What kinds of push experience every d

Type here

Type here



Interdisciplinary

Parts of a Dog Sled

There are many working parts to a dog sled.

Handle Bars

The musher holds on to the handle bars for safety.

Foot Boards

This is where the musher stands while riding the sled.

Brake

The brake makes the sled come to a stop.



VIRTUAL FIELD TRIP:

Natural Hazards



Reading Comprehension

San Francisco Earthquake

The 1906 San Francisco earthquake was a big [earthquake](#) that hit San Francisco on April 18, 1906. It was felt from [Los Angeles](#) to [Oregon](#) and [Nevada](#). The earthquake was about a 7.8 on the [Richter scale](#). Around 3,000 people were killed and between 227,000 and 300,000 people were left homeless. There were also fires because [gas pipes](#) were destroyed, and the gas caught on fire. Over 80% of the city was destroyed by the earthquake and fires that came later. The city is on the [San Andreas Fault](#), which slid, causing the earthquake.

1906 San Francisco earthquake Facts for Kids. Kiddle Encyclopedia.

View some scenes of the damage the earthquake caused.



1. What year did the major earthquake happen?
2. How powerful was the earthquake?
3. What kind of damage did the earthquake cause?
4. Why was the city San Francisco damaged by this earthquake?
5. Do you think an earthquake could occur in this city again?

To Ticket



Integrates Multimedia

Mt. Saint Helens



Summarize the work of a vulcanologist
Why is their work important?

Integrated Anchor Charts

Let's Explore! : Hurricanes

Directions: Watch the video. Complete the graphic organizer using details from the video.

WHAT?

WHEN?

WHERE?

HOW?



Writing

Tornado Damage

Directions: Learn more about how tornadoes are rated in intensity by rating tornado damage. Click on the photo below and see if you can correctly rate each example on the scale.



Describe your experience. What did you learn about tornadoes are rated? Why do you think scientists give tornadoes a rating?

Critical Thinking Skills

Travel Notes

Directions: Use the spaces below to reflect on your natural

What is something new you learned about natural hazards?

In what ways can natural hazards affect people?

We cannot eliminate natural hazards, but we can reduce their impacts. Give at least one example of how people can work

VIRTUAL FIELD TRIP: To the Rainforest!

The Forest Floor Layer

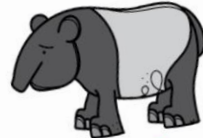


The bottom layer of the rainforest is called the forest floor because very little sunlight reaches the forest floor because of the thick canopy above. The forest floor is mostly covered with fallen leaves, twigs, and branches. Many seeds, nuts, fruits, twigs, and branches can also be found on the forest floor. These things help the soil become very rich with nutrients as they decompose, or break down, into the soil.

Many animals live on the forest floor. Click on the animal to learn about its life in the rainforest.



Tiger



Tapir



Jaguar

Science Aligned



Science Based:

Aligned 2nd & 3rd Grade to NGSS

2nd Grade

- LS2.A: Interdependent Relationships in Ecosystems Plants depend on water and light to grow. (2-LS2-1)
- Plants depend on animals for pollination or to move their seeds around. (2-LS2-2)
- LS4.D: Biodiversity and Humans
- There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)

3rd Grade

LS2.C: Ecosystem Dynamics, Functioning, and Resilience

- When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die. (secondary to 3-LS4-4)

LS4.C: Adaptation

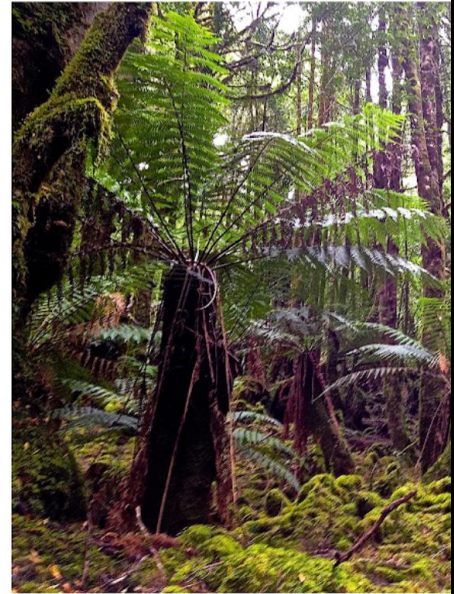
- For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3) LS4.D: Biodiversity and Humans
- Populations live in a variety of habitats, and change in those habitats affects the organisms living there. (3-LS4-4)

Integrates Reading

The Understory Layer

Above the forest floor in a rainforest is the understory layer. The understory has bushes, shrubs, vines, and small trees. This layer of the rainforest also receives little sunlight and is very humid. Some trees in the understory will grow tall enough to become part of the next layer, called the canopy layer.

Many insects live in the understory and can survive year-round because of the consistent climate. Click the Blue Morpho Butterfly to learn more about the insects of the rainforest.



Interactive Map

Where Are Rainforests



Tropical rainforests are located all over the world on five of the seven continents. Tropical rainforests are located near the equator, where the climate is very hot and wet. Use the map to learn about some of the world's largest rainforests!

Interdisciplinary

People of the Rainforest



Did you know
home to people
who live together
live in communities.
There are many
living in rainforests
world.

[Learn about
life in the
rainforest](#)

VIRTUAL FIELD TRIP:

Grand Canyon

Where is the Grand Canyon



The Grand Canyon is in Arizona in the southwest States. It is located in Canyon National Park, a visited national park in the States. Nearly 6 million people visit the park each year.



Place the star on Arizona.



Social Studies

Ancestral Pueblo



Humans have lived in the Grand Canyon for thousands of years. Many of these people belonged to different Native American Indian groups. Some of these groups were part of the same family or tribe. Others were from different tribes and had different languages and religious beliefs.

The Ancestral Puebloans lived in the Grand Canyon for many centuries. Since the time of the Ancestral Puebloans, many people have called the Grand Canyon home. Some people have even lived in the Grand Canyon for thousands of years. The Grand Canyon is a natural wonder and a great place to learn about the history of these tribes.

Integrates Reading

What is the Grand Ca



What is a canyon?

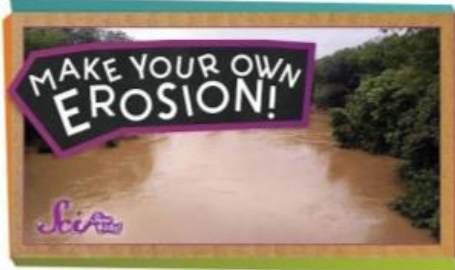
The Grand C
nature's gre
in the entire
deep valley v
Most canyon
through the
streams.

The Grand C
long, 18 miles
mile deep. It
canyons in th
Canyon has
millions of ye
growing!

STEAM:

Science Experiment

Watch the science experiment on erosion.



Then try experiment on your

What materials did you use

What evidence did you observe
to prove that erosion occurred

To Postcard



Engaging & Educational Media

Grand Canyon Tourism

There are many adventures awaiting at the Grand Canyon. In addition to many beautiful views for hiking and locations for camping, the Grand Canyon has many activities for its visitors.



Take a step right above the Grand Canyon on the Skywalk at Eagle Point.

See the best views of the Grand Canyon at the Desert View Watchtower.



Critical Thinking Skills

Write a Journal Entry!

Make sure to answer the following question:

- In your own words, describe how the Grand Canyon has formed over millions of years.

Type your journal entry here!

Continue your journal entry here!

VIRTUAL FIELD TRIP: To The Savanna!

Where Are Savannas

Savannas are located near the equator. Savannas can be found in South America, Australia, and India. However, the largest savanna is in the continent of Africa. More than half of Africa is covered in savanna grasslands!



Integrates Reading Skills

What Is A Savanna

A savanna is a large area of tropical grassland with very warm temperatures. Savannas have a rainy season in the summer, and a dry season in the winter. This climate allows many trees to grow in a savanna.

Savannas are home to many kinds of amazing animals. Because there are so many of the animals are herbivores, which means they only eat plants and not meat. However, there are also meat-eating animals (called carnivores) living in the savanna. These animals are predators to other animals. To help protect each other, many animals in the savanna live in large groups.

After reading, highlight the answers to the following questions:

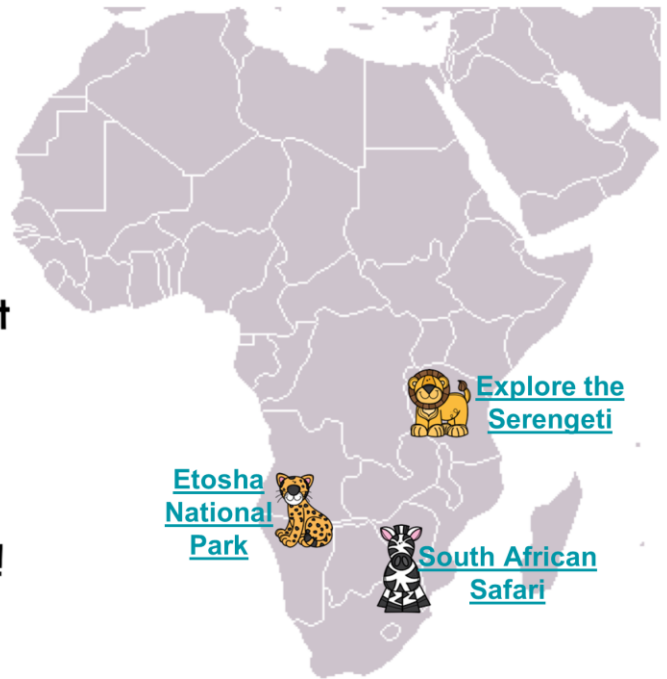
- What is a savanna?
- What lives in a savanna?



Interactive Map

Where Are Savannas

Savannas are located near the equator. Savannas can be found in South America, Australia, and India. However, the largest savanna is in the continent of Africa. More than half of Africa is covered in savanna grasslands!



Problem Solving

Brainstorm

How can people protect
and save endangered

Type your ideas here!



Writing

Write a Journal Entry!

Make sure to answer the following questions:

- What did you learn about the safari videos?
- Would you ever want to go on a safari? Why or why not?

Type here

Type here



Plants & Animals

African Lions



Read all about
African Lions.



After
answer t



Hear a lion roar!

What is a group of lions c

Type your response here.

Describe the role of male
females in a lion pride.

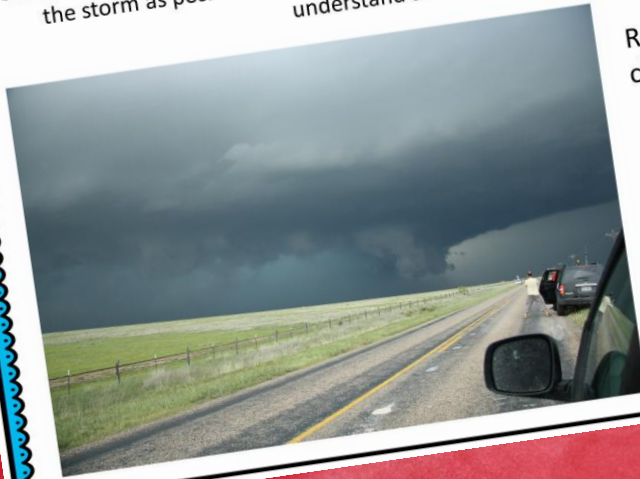
Type your response here.

VIRTUAL FIELD TRIP:

Storm Chasing

What Is A Storm Chaser?

Storm chasers are people who study storms right as they are happening by traveling as physically close to the storm as possible. Like meteorologists, storm chasers also study storm patterns to help better understand storms and their impact on an area.



Read the [Storm Chasing article](#). To click the tornado to answer questions about the article on the next slide.



Weather Phenomena

Tornadoes



A tornado is a powerful storm often produced by a thunderstorm. Because a tornado is made of air, it is very hard to see until it forms itself into a funnel. The funnel shape is dust, water, and debris picked up by the tornado.

Tornadoes travel very fast (up to 300 miles per hour) and can cause a lot of damage and destruction. Meteorologists are people who study weather, rank tornadoes by their strength using a special scale called the EF-Scale.

In the United States, tornadoes occur most frequently during the spring and summer. Tornadoes are most common in the Midwest and South Central portions of the United States because this is where cold fronts and warm fronts meet. The meeting of a cold front and a warm front is a perfect recipe for a tornado.

[Watch a Tornado Form!](#)

Integrates Reading

Hurricanes

A hurricane is a powerful storm formed in warm ocean waters that begins as a tropical storm. Hurricanes have extremely strong winds and can produce a lot of rain and thunderstorms. For a storm to be classified as a hurricane, its winds must reach at least 74 miles per hour.

Hurricanes can form in the Atlantic Ocean, Caribbean Sea, and the Gulf of Mexico. Hurricanes are capable of very severe damage when they reach landfall, which is when the storm occurs over land.

The strength of a hurricane is rated on a scale of 1-5, with a Category 5 being the strongest type of hurricane. The center of a hurricane is called the **eye of the hurricane**. The eye is the strongest part of the hurricane.

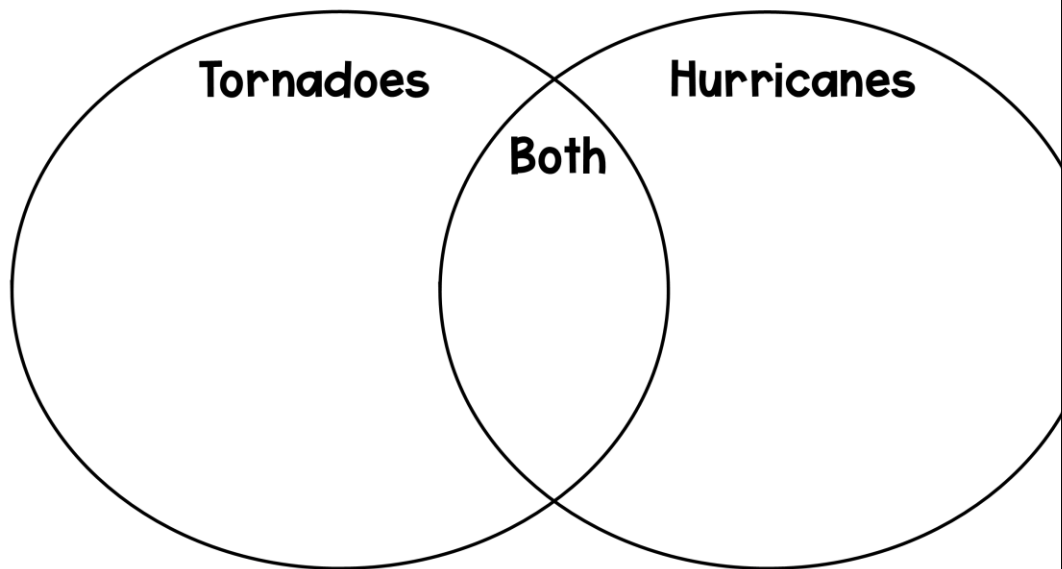


Inside a Hur

Compare & Contrast

Compare & Contrast

Use the diagram to compare and contrast tornadoes and hurricanes.

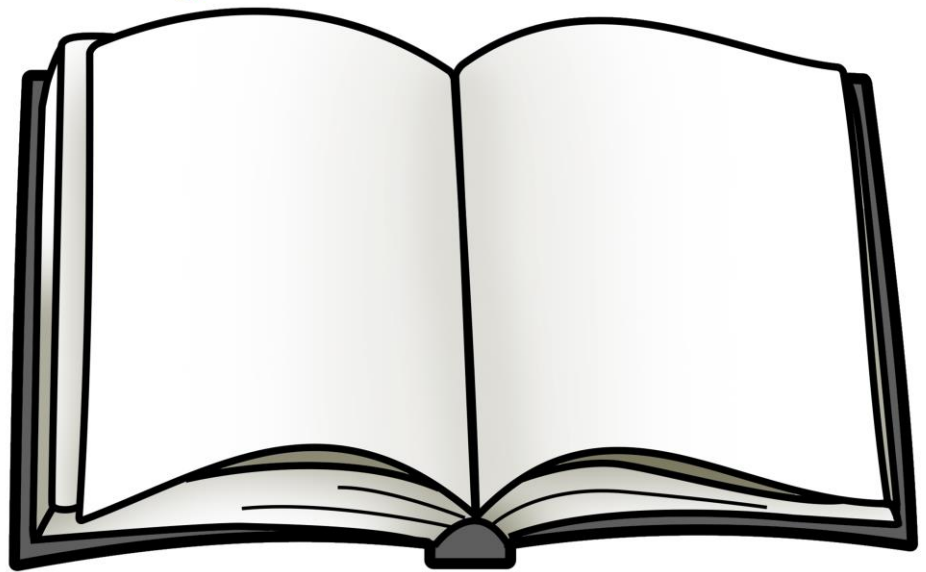


Writing

Write a Journal Entry!

Make sure to answer the following questions:

- Would you ever want to be a storm chaser? why not?
- Is storm chasing worth the danger? or why not?



Critical Thinking Skills

Describing Storm Chasers

Create a list of adjectives and character traits that can be used to describe storm chasers.



VIRTUAL FIELD TRIP: To the Zoo!

My City Zoo Map

ENTRANCE

MIGHTY
MAMMALS
EXHIBIT



ROCKIN'
REPTILES
EXHIBIT

BRILLIANT
BIRDS
EXHIBIT

Let's explore
exhibits.



Science Based: Learn Animal Classifications

Mighty Mamma

Directions: Click on the picture below to view a video of all the small mammals at the National Zoo.



The Smithsonian National has many types of mammals. All mammals are mammals because they are born to live young.

Do you think mammals have fur?



Yes! Mammals have fur and hair. You can see it in the picture on the left.

Do you think mammals are warm-blooded?



Yes! Mammals are warm-blooded. Their body temperature stays the same even if it is very cold outside.

Integrates Reading

All About Anim

We will meet insects and fish today, too.

Insects are very important to our ecosystem. Did you know that spiders are different from insects? Spiders are arachnids (a-rach-nids). Spiders have eight legs and two body parts. Insects have six legs and three body parts. Bees, grasshoppers, and beetles are a few types of insects.

Many types of fish live in different bodies of water. Did you know dolphins and whales are actually mammals? They breathe air! Sharks, goldfish and swordfish are just a few types of fish. Fish have gills their entire lives to breathe underwater.

Fish and insects are both cold-blooded.



Label the fish and in

INSECTS

INSECTS

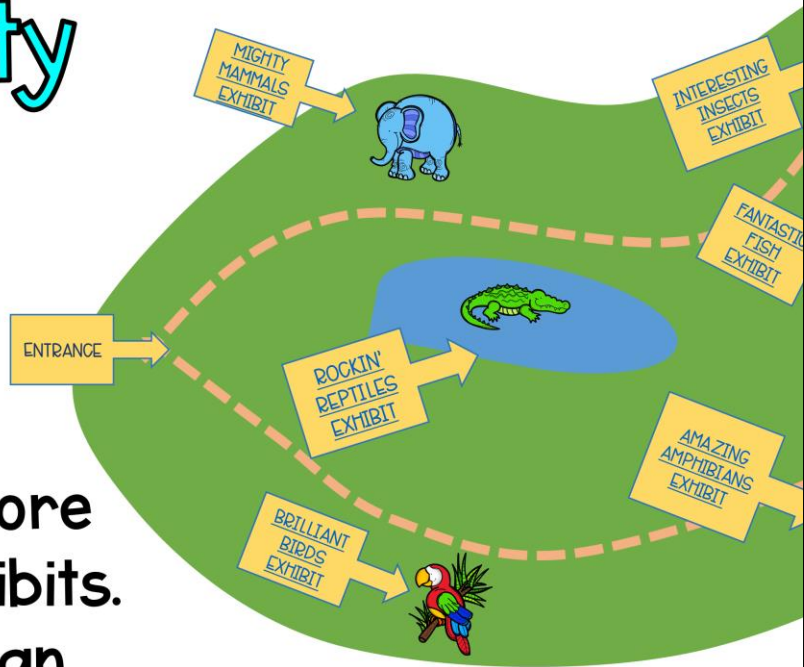
Underline insects in orange. _____

Underline fish in yellow. _____

Interactive Map & Passport

My City Zoo Map

Let's explore
animal exhibits.
Click on an
animal!



Interdisciplinary

Brilliant Birds

Directions: Sort the words and pictures between mammal traits



Give
birth to
live
young

Warm-blooded



TO
PASSPORT



feathers