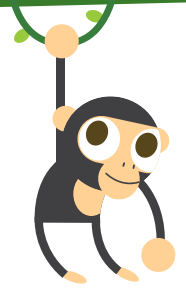




Animal Adaptations Lesson Guide



WATCH 15 MINUTES

Watch [Adapto the Coyote | Wild Kratts](#) media clip to spark an interest in how animals adapt to survive.



TEACH 30 MINUTES

Teach students about the specific ways animals adapt to their environment using vocabulary and discussion questions.



EXPLORE 60 MINUTES

Explore animal adaptations and build inquiry skills with students investigating wonderings and gathering information about a chosen animal.



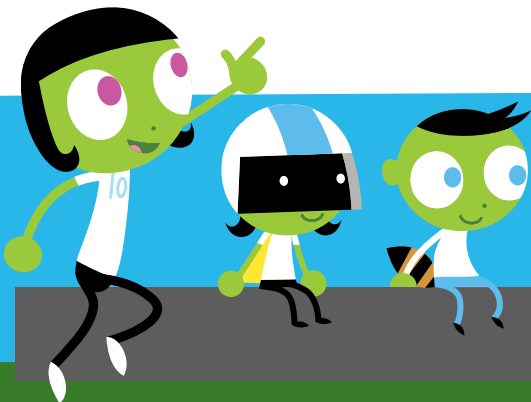
CREATE 1-2 DAYS

Create an adaptable creature and bring an animal to life with stop motion animation.



SHARE 1 DAY

Share creations with peers and connect with families.



Empowering Student Learning using Anti-Bias, Anti-Racist (ABAR) Strategies

Strategies to consider:

- Every student contributes and shares responsibility. Share the pen, share the mic, share the learning.
- Provide students with a voice for choice and allow them to choose the animal they want to research.
- Use accurate language for places and people as students explore animals and habitats across North America.

Media

Students will view media clips from [Adapto the Coyote | Wild Kratts](#) to spark an interest in how animals adapt to survive.



Discussion

After viewing the media, begin a conversation about the coyote and what the students noticed about its adaptability. Provide wait time for students to formulate thoughts and answers to discussion questions.

- What makes the coyote so adaptable?
- What is the diet of the coyote?
- What physical characteristics does the coyote have that helps it survive?
- Where can the coyote live and survive?

Using knowledge gathered about the coyote, guide the discussion towards how different animals survive in their environments.

- How can an animal adapt to its environment to survive?
- How can an animal adapt its diet to survive?
- What kinds of physical characteristics do animals have that help it survive?

Connect animal adaptations to human adaptations.

- So we know animals have adaptations. What kind of adaptations do humans have?



TEACH

30 minutes

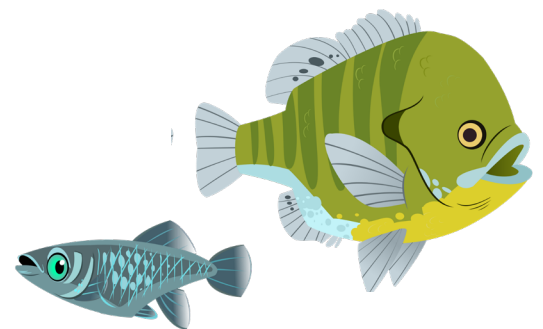
Vocabulary

Introduce vocabulary words to the students. Have them echo words as you read them aloud. Explain definitions of the words. Create a word wall with vocabulary words and pictures of animals. Share a variety of picture examples of animals in their habitats and have students identify examples of the vocabulary words.

- **adaptation** - a physical feature or behavior that helps an animal survive
- **physical characteristics** - parts of an animal's body, its features
- **habitat** - the area where the animal lives
- **diet** - food the animal eats
- **observation** - the act of observing or watching to gain information
- **scavenger** - an animal that eats other animals and organisms that are already dead
- **prey** - an animal that is being hunted
- **predator** - an animal that is hunting another animal

Creature Sort

Use the [Creatures from North America | Sorting Cards](#) for students to share their understanding of animals found in North America. Support students to sort the animal cards by physical characteristics and diet. Discuss features some animals have that help it adapt to their environment and support students to sort the animals into “Haves” and “Have Nots” categories.





EXPLORE

60 minutes

Aviva's Powersuit Maker

Have students further explore animal adaptations by using [Aviva's Powersuit Maker](#). This interactive game from WILD KRATTS will have students building animals that combine Creature Powers of different animals. Students will discover animal characteristics that help animals survive in different environments around the world.

Creature KWL Chart

Students will expand their inquiry skills by choosing a North American animal to investigate and learn more about. They will begin by completing the [Creature KWL Chart](#). Using this graphic organizer, students will share their knowledge and wonderings about a North American animal they choose to learn about. Provide students a voice for choice. Allow students to choose the animal they want to research. This will give students ownership over their learning. Students will start by completing the first two sections of the chart and drawing a picture or writing a sentence about what they already know and what they want to learn about the creature. Depending on student level, the Creature KWL Chart can be completed together or independently. After students have concluded their research, they should revisit the Creature KWL Chart and draw a picture or write a sentence to share what they learned during the animal investigation.

Animal Investigation

Using the [Creatures That Live In The North American Forest booklet](#) and [Wild Kratts Creaturepedia](#), students will locate facts about their chosen animal to complete the [Creature Facts Sheet](#). They will gather information about the animal's physical characteristics, diet, habitat, and an amazing fact. Depending on student level, this activity can be completed by writing or drawing about their findings.



Invent an Adaptable Creature

As one of the culminating activities for this lesson, students can invent their own creature that combines adaptations of different animals. Students should think about what features help an animal to survive and then complete the [Invent an Adaptable Creature](#) page. This will allow for students to showcase their creativity and understanding of animal adaptations.

Stop Motion Animation



The second culminating activity has students creating a stop motion animation video that demonstrates their knowledge of the animal they researched. They will use clay or available art supplies to create their animal and design a habitat background for their video. Using a simple stop motion app, students will take multiple pictures of their animal as it moves through the habitat. The stop motion app will put these pictures together to create a short video of the animal in motion. If possible, students can narrate the video sharing how their animal adapts to survive and a WOW fact that they learned during the animal investigation.

Use this [Create and Engage with Stop Motion Animation](#) Teacher Feature to get started.



Give Students a Voice with Sharing

Provide time at the end of this project to allow student voices to be heard and to validate their research findings and showcase their creativity.

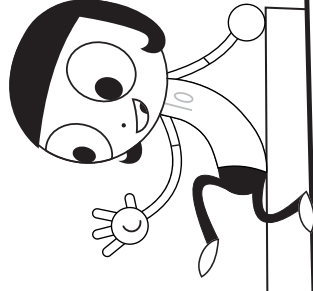
This time can be as simple as inviting students to share their animal investigation research with a peer. Or set aside more time to present their invented creature or stop motion animation video with the class. Have students incorporate their animal WOW fact into their presentation!

Connect with families by sharing the students' stop motion animations through digital classroom portfolios, email, or class messaging.



Creature:

Name _____



What do you already
know about the
creature?

What do you want
to learn about?

What did you learn?

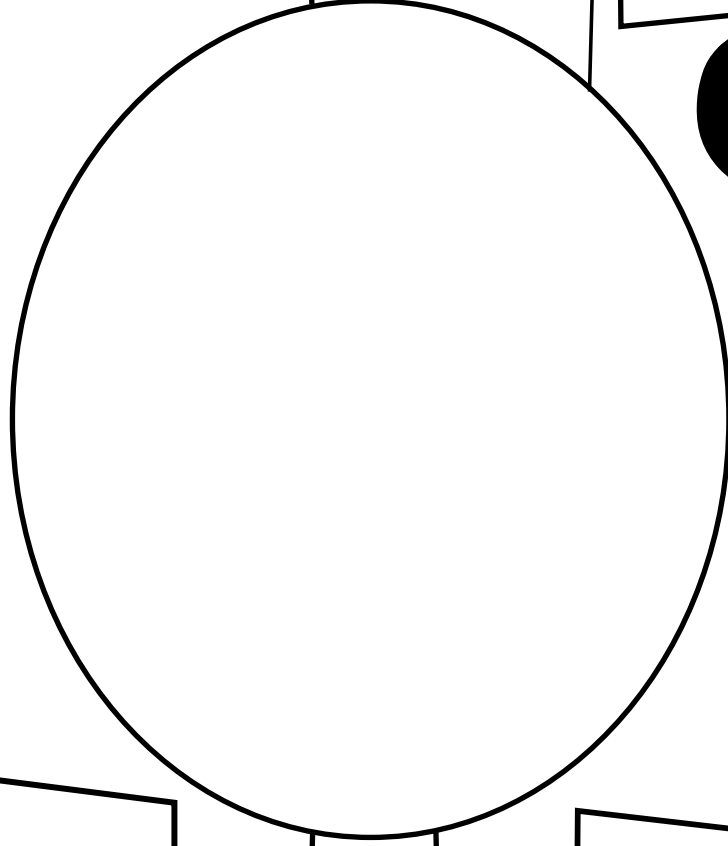


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KWL Chart

Physical Characteristics

Creature

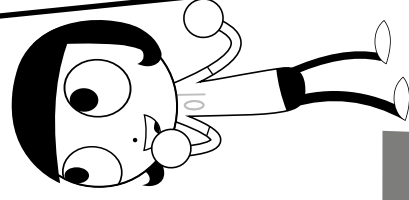


Habitat

Name

Diet

Amazing Fact!



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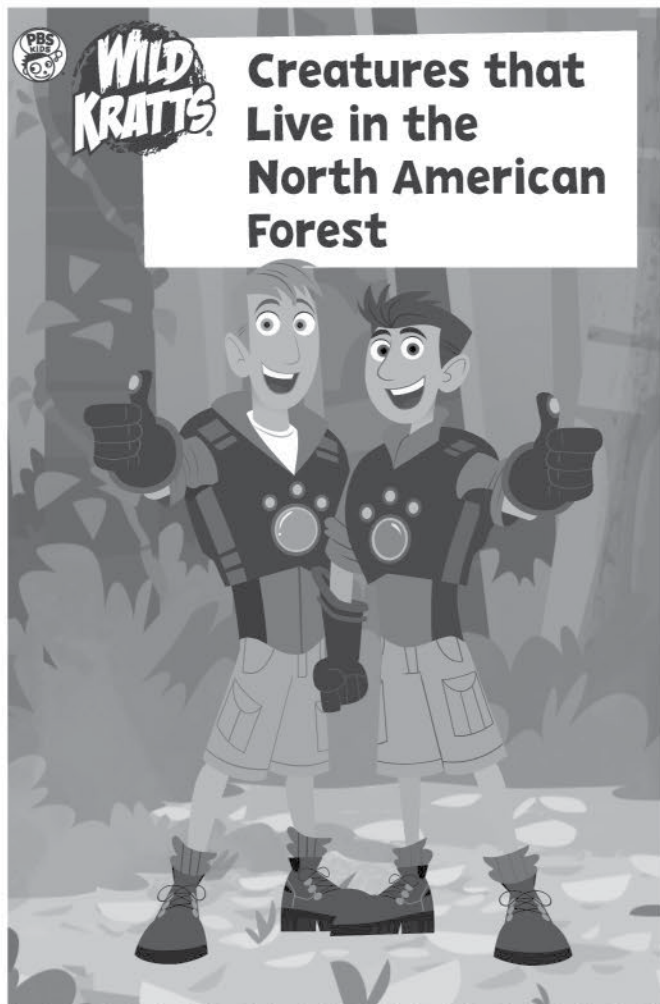
Creature Facts



Creatures that Live in the North American Forest

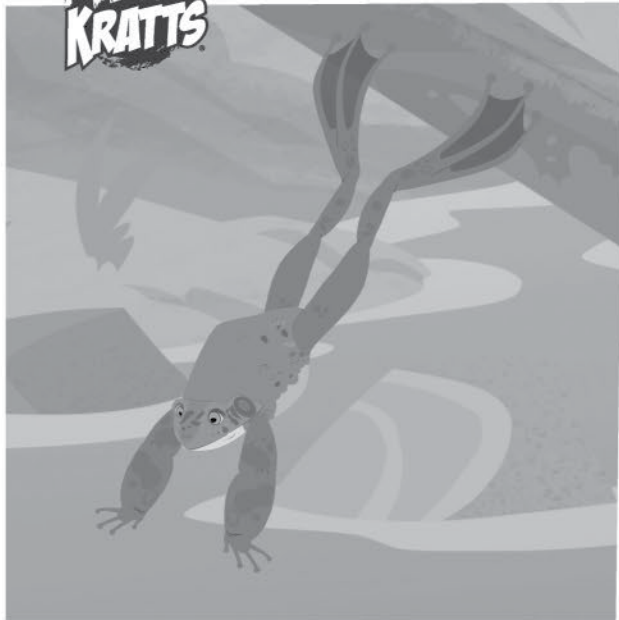
Chris and Martin Kratt point out what makes different creatures unique! Learn about creatures that live in the North American forests. Create your own book: *Creatures that Live in the North American Forest*. Practice reading the book and sharing creature WOW facts with others.

Cut out the pages and then staple them together to create a book.



Find more games and activities at pbskidsforparents.org





American Bullfrog

American bullfrogs are the **LARGEST** North American **FROG**. Bullfrogs are hungry. They'll eat anything they can swallow including mammals, birds, reptiles, fish, and even other frogs.



Bald Eagle

Bald eagles use their huge talons to pluck fish directly out of the water. Bald eagle parents make one of the bird-world's **LARGEST BIRD NESTS**.



Beaver

Beavers are the **LARGEST RODENTS** in North America! They love to swim with their webbed feet and paddle-shaped tails. Since their teeth never stop growing, they keep them short by gnawing on wood.



Black Bear

Black bears are outstanding **CLIMBERS**! They climb to feed, escape enemies, or even to sleep. Black bears have a varied diet. In fall, they fatten up by eating nuts, berries, and other high-quality foods before denning for several months.

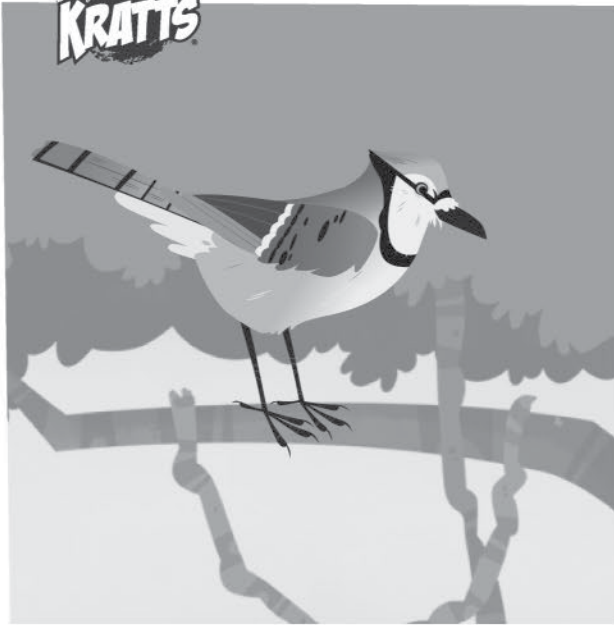


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KRATTS**

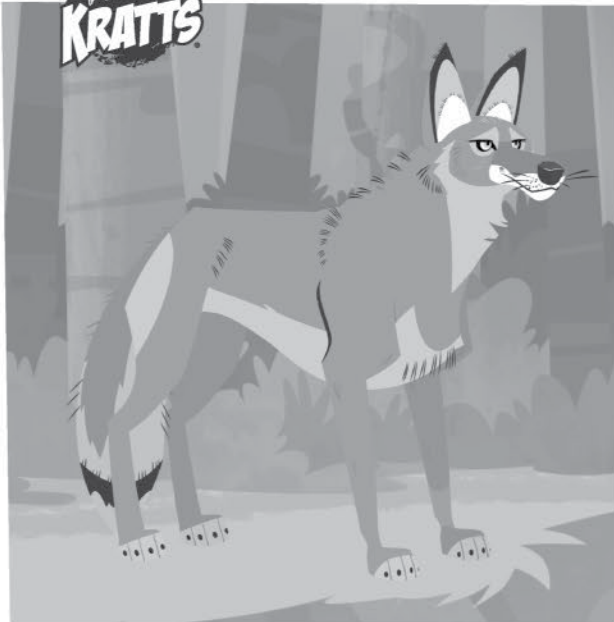
Blue Jay

The Blue Jay is known as a noisy and boisterous bird. Its loud cries are USED TO WARN OTHER BIRDS and animals of danger, but are also often just for fun. The jay is also known to imitate hawk calls.

**WILD
KRATTS**

Box Turtle

The box turtle can withdraw its limbs, head and legs into its shell for protection when it feels threatened. The bottom of the shell HAS HINGES, LIKE ON A DOOR, near the openings so it can "box" itself in completely until the coast is clear.

**WILD
KRATTS**

Coyote

The coyote is one of the most vocal of all North American mammals and CAN MAKE MANY DIFFERENT SOUNDS. It uses woofs, growls, huffs, barks, howls, yelps, high-frequency whines, and other noises to communicate.

**WILD
KRATTS**

Firefly

Fireflies talk to each other using special light codes that send secret messages that are specific to each species. Fireflies create the most efficient light in the world called BIOLUMINESCENCE.



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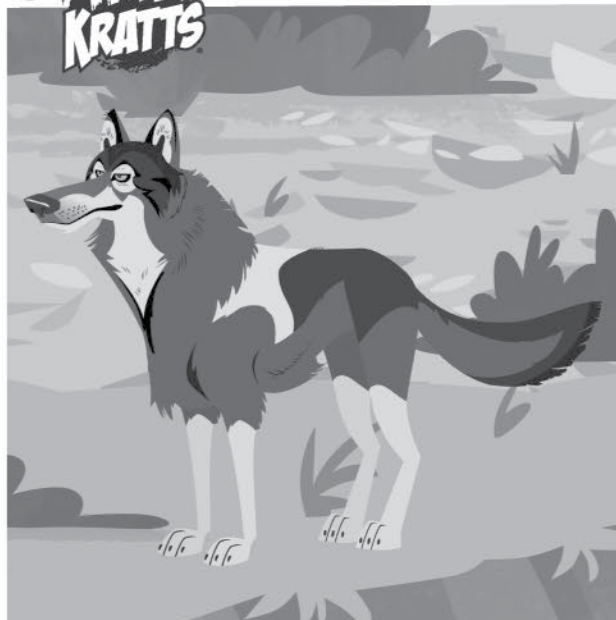
Gray Squirrel

Gray squirrels are excellent climbers. They **CAN TURN THEIR BACK PAWS** 180 degrees to climb down a tree head first! They bury acorns for the winter and in spring some acorns will grow into huge oak trees.



Monarch Butterfly

Monarch butterflies **MIGRATE**. They travel up to 3,000 miles every year. As caterpillars, they only eat one type of food — milkweed leaves. Talk about picky eaters!



Gray Wolf

Gray wolves travel long distances and **LIVE IN PACKS** in North America. The alpha male and female breed and after five months, puppies are ready to travel on long distance hunts with their packs.



Monitor Lizard

Monitor lizards live on land but they are also good climbers and swimmers. They can dive under water and **HOLD THEIR BREATH** for more than 20 minutes.



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KRATTS**

Moose

Moose can gallop on land and swim in water. Moose even have SPECIAL NOSES that close so they can eat underwater.

**WILD
KRATTS**

Peregrine Falcon

Peregrine falcons are the **FASTEST ANIMALS** on earth! They can reach speeds of over 200 mph when hunting. Peregrine falcons pair for life.

**WILD
KRATTS**

Pigeon

Pigeon moms and dads produce milk from a special part of their digestive system, the crop, to feed their young. Pigeons can use landmarks, the direction of the sun, and even **THEIR SENSE OF SMELL** to help them navigate over large distances.

**WILD
KRATTS**

Raccoon

Raccoons have **LIGHTNING QUICK REFLEXES** and are able to grab crayfish, frogs, and other aquatic creatures straight from the water. On land, they grab mice and insects or raid nests.



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Red Fox

The tail of a fox is known as a "brush." They CAN USE THEIR BIG, BUSHY TAILS TO HELP KEEP WARM in cold weather by wrapping it around their body and face - kind of like a portable blanket!



Screech Owl

The male screech owl feeds the mom and guards the nest while the female incubates the eggs. After the young hatch, both parents feed them. Screech owls CAN HEAR A MOUSE RUSTLING under leaves from a high tree branch!



White-Tailed Deer

White-tailed deer are EXPERT LEAPERS! Male white-tailed deer, known as bucks, start to grow new antlers every spring.



Wild Turkey

Wild turkeys LOVE ACORNS! They gobble up white, red, chestnut, and black oak acorns. Wild turkeys can fly up to one mile, reaching maximum speeds of 60 mph.



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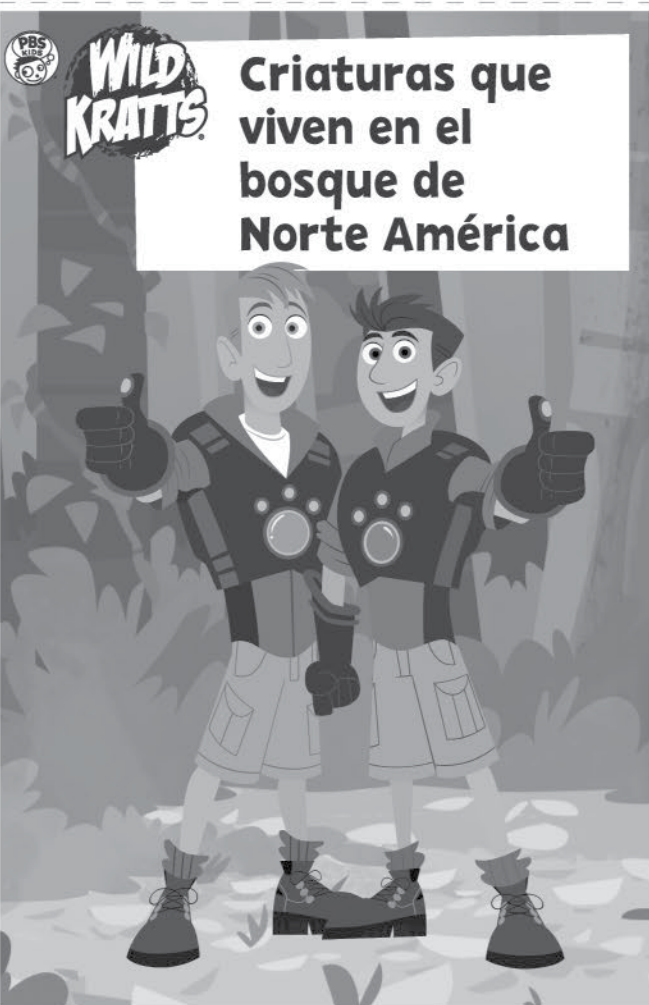




Criaturas que viven en el bosque de Norte América

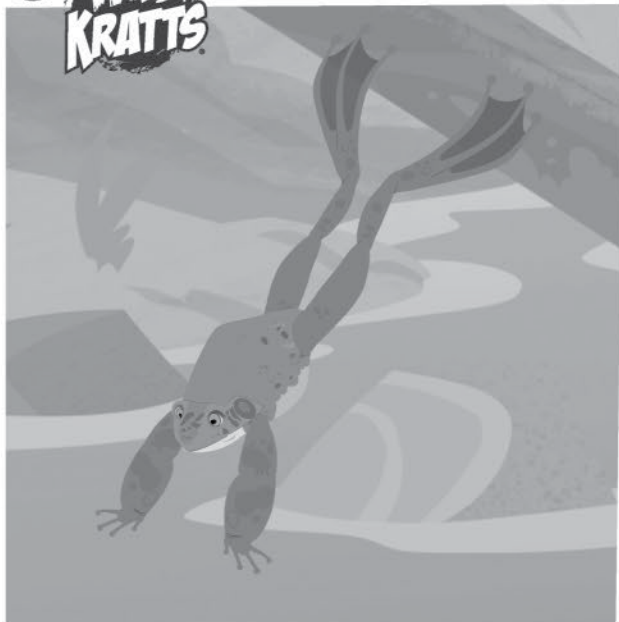
Chris y Martin Kratt señalan lo que hace que las diferentes criaturas sean únicas. Aprende sobre los criaturas que viven en los bosques de Norte América. Crear un libro: *Criaturas que Viven en el Bosque de Norte América*. Practica la lectura del libro y comparte datos WOW sobre las criaturas con los demás.

Recorta y engrapa las páginas para crear un libro.



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Rana toro Americana

Las ranas toro americanas son las ranas norteamericanas **MÁS GRANDES**. Las ranas toro son muy hambrientas. Ellas se alimentan de todo lo que pueden tragar, incluyendo mamíferos, aves, reptiles, peces, e incluso otras ranas.



Águila calva

Las águilas calvas usan sus enormes garras para sacar peces directamente del agua. Los padres de un águila calva hacen los **NIDOS DE AVES MÁS GRANDES** del mundo.



Castor

¡Los castores son los **ROEDORES MÁS GRANDES** de América del Norte! A ellos les encanta nadar con sus pies palmeados y sus colas en forma de remo. Como sus dientes nunca dejan de crecer, ellos los mantienen cortos mordiendo madera.



Oso negro

¡Los osos negros son **EXCELENTES ESCALADORES**! Ellos trepan para alimentarse, escapar de los enemigos o incluso dormir. Los osos negros tienen una dieta variada. En otoño, engordan comiendo nueces, bayas y otros alimentos de alta calidad antes de engordar durante varios meses.



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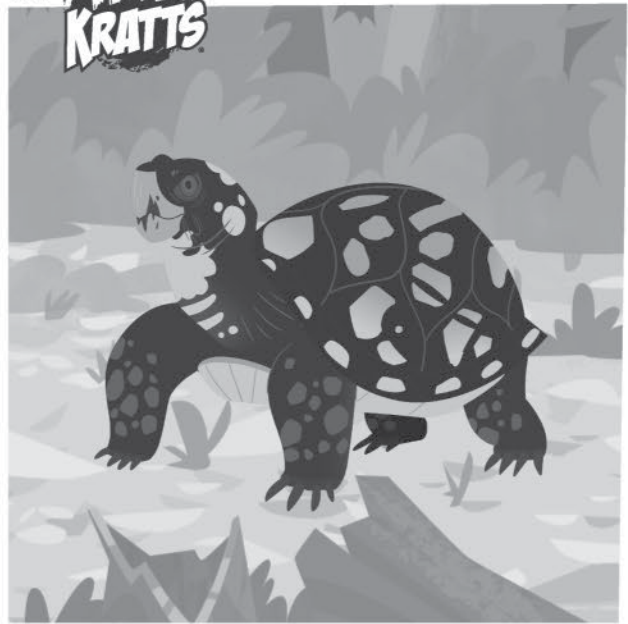
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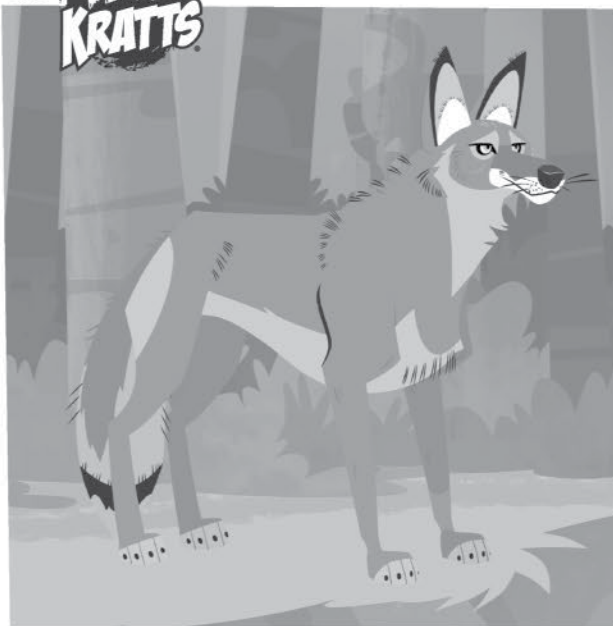
Arrendajo azul

El arrendajo azul es conocido como un pájaro muy ruidoso y revoltoso. Sus fuertes gritos se utilizan para advertir a otras aves y animales del peligro, pero a menudo también son solo para divertirse. El arrendajo se conoce también por imitar las llamadas de los halcones.

**WILD
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Tortuga de caja

La tortuga de caja puede esconder sus extremidades, su cabeza y patas dentro de su caparazón para protegerse cuando se siente amenazada. La parte inferior de la caparazón TIENE BISAGRAS, que son COMO EN UNA PUERTA cerca de las aberturas para que esta pueda encerrarse como en una caja hasta que la costa esté despejada.

**WILD
KRATTS**

Coyote

El coyote es uno de los mamíferos más vocales de Norte América y este puede EMITIR MUCHOS SONIDOS DIFERENTES. Ellos utilizan los "woof", gruñidos, bufidos, ladridos, aullidos y gemidos de alta frecuencia y otros sonidos para comunicarse.

**WILD
KRATTS**

Luciérnaga

Las luciérnagas se comunican entre sí mediante códigos de luz especiales que envían mensajes secretos que son específicos de cada especie. Las luciérnagas crean la luz más eficiente del mundo llamada BIOLUMINISCENCIA.



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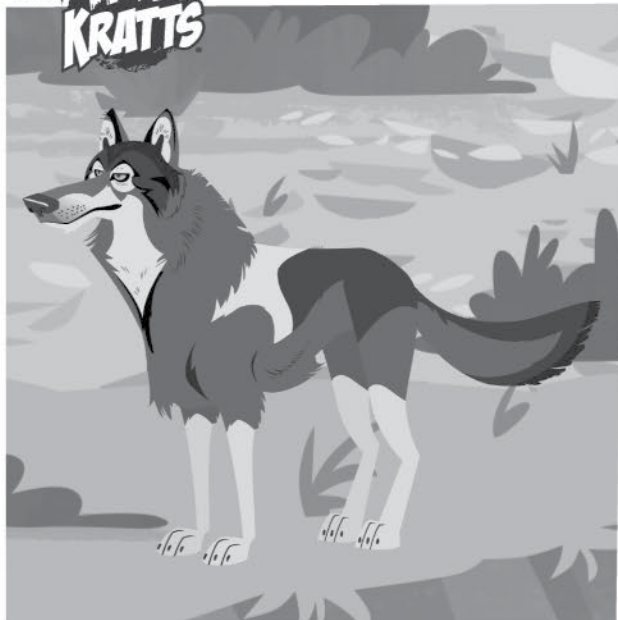
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**WILD
KRATTS**

Ardilla gris

Las ardillas grises son excelentes trepadoras. ¡ELLAS PUEDEN GIRAR SUS PATAS 180 grados para bajar de un árbol de cabeza! Ellas entierran bellotas para el invierno y luego en la primavera algunas de estas bellotas se convierten en enormes árboles robles.

**WILD
KRATTS**

Lobo gris

Los lobos grises viajan largas distancias y VIVEN EN MANADAS en América del Norte y en todo el mundo. El macho alfa y la hembra se reproducen y después de cinco meses, los cachorros están listos para viajar en cacerías de larga distancia con sus manadas.

**WILD
KRATTS**

Mariposa monarca

Las mariposas monarca MIGRAN. Estas viajan hasta 3,000 millas cada año. De orugas, ellas solo comen un tipo de alimento: las hojas de algodoncillo. ¡Ellas son muy quisquillosas con su comida!

**WILD
KRATTS**

Lagarto monitor

Los lagartos monitores viven en tierra, pero también son buenos escaladores y nadadores. Pueden bucear bajo el agua y CONTENER LA RESPIRACIÓN durante más de 20 minutos.

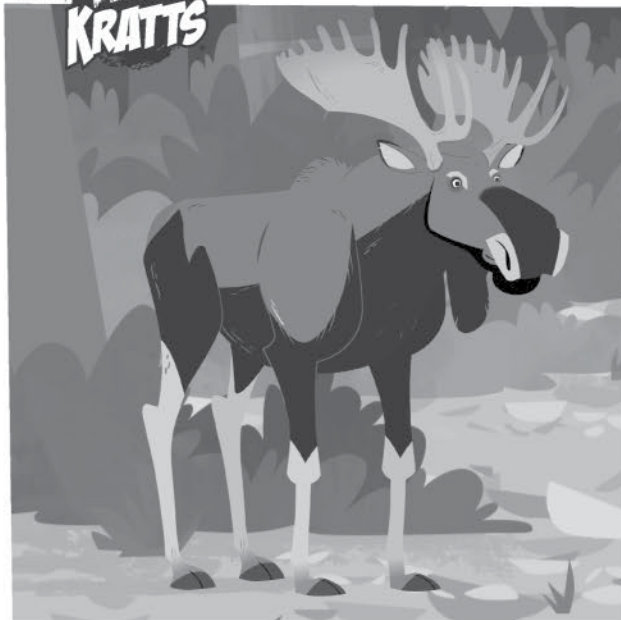


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**WILD
KRATTS**

Alce

Los alces pueden galopar en tierra y nadar en el agua. Los alces también TIENEN NARICES ESPECIALES que se cierran para poder comer bajo el agua.

**WILD
KRATTS**

Halcón peregrino

Los halcones peregrinos son los animales MÁS RÁPIDOS de la tierra. Estos pueden alcanzar velocidades de más de 200 mph cuando cazan. Los halcones peregrinos se emparejan de por vida.

**WILD
KRATTS**

Paloma

Las mamás y los papás de las palomas producen leche de una parte especial de su sistema digestivo llamada el buche para alimentar a sus crías. Las palomas pueden usar puntos de referencia, la dirección del sol e incluso SU SENTIDO DEL OLFATO para ayudarlos a navegar a grandes distancias.

**WILD
KRATTS**

Mapache

Los mapaches tienen REFLEJOS TAN RÁPIDOS COMO RAYOS y pueden atrapar cangrejos de río, ranas y otras criaturas acuáticas directamente del agua. En tierra, agarran ratones e insectos y a veces atacan nidos.



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**WILD
KRATTS**

Zorra roja

La cola de un zorro se conoce como un "cepillo". Ellos PUEDEN UTILIZAR SUS GRAN DES Y VOLUMINOSAS COLAS PARA AYUDARSE A MANTENERSE CALIENTE en climas fríos envolviéndola alrededor de su cuerpo y cara, ¡como si fuese una manta portátil!

**WILD
KRATTS**

Búho chillón

El búho chillón macho alimenta a la mamá y cuida el nido mientras la hembra incuba los huevos. Después de la eclosión de las crías, ambos padres los alimentan. ¡Ellos pueden OÍR EL SONIDO DE UN RATÓN MOVERSE bajo las hojas desde una rama muy alta en un árbol!

**WILD
KRATTS**

Ciervo de cola blanca

¡Los ciervos de cola blanca son EXPERTOS SALTADORES! Los ciervos de cola blanca machos comienzan a crecer nuevas astas cada primavera.

**WILD
KRATTS**

Pavo salvaje

¡A los pavos SALVAJES LES ENCANTAN LAS BELLotas! Ellos comen muchas bellotas de roble blanco, rojo, castaño y negro. Los pavos salvajes pueden volar hasta una milla, alcanzando velocidades máximas de 60 mph.



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Creatures from North America Sorting Cards

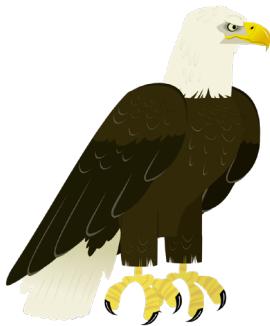
Cut apart the individual animal cards. Use the creature cards to create sorts for physical characteristics and diet. Discuss features some animals have that help it adapt to their environment and support students to use the cards to sort the animals into "Haves" and "Have Nots" categories.



Aardvark



**American
Bullfrog**



Bald Eagle



Black Bear



Beaver



Firefly



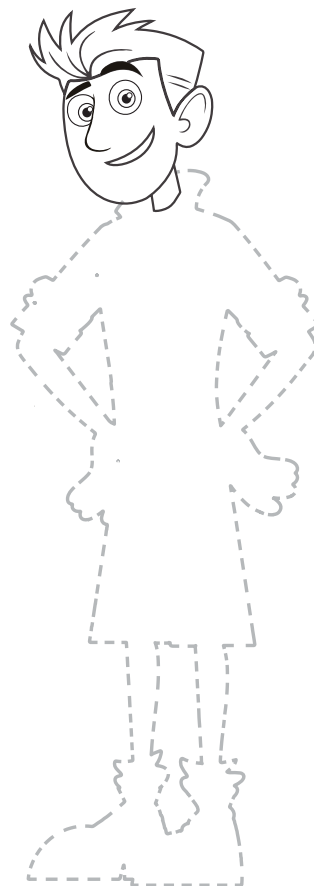
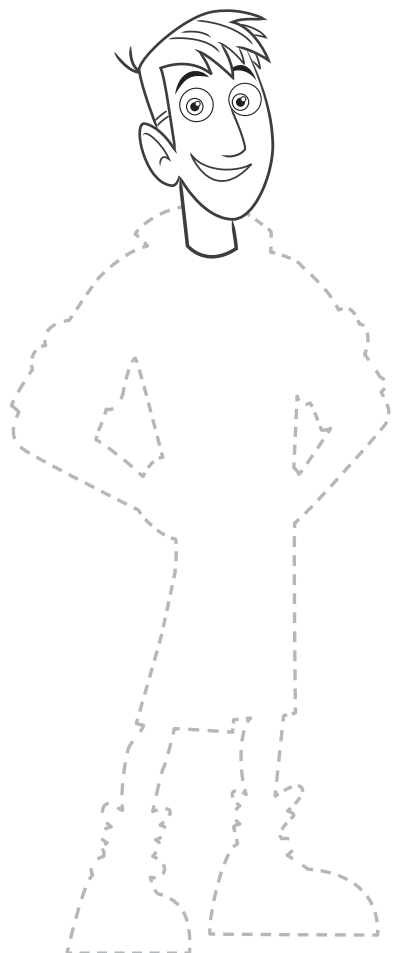
Invent an Adaptable Creature

Think about what features help an animal survive.

Draw the most adaptable creature you can invent, then make a cool Creature Power Suit for Chris and Martin to wear.

Write about your adaptable creature.

What does it eat? Where does it live? How does it survive?



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Wild About

**Stop Motion Animation
Animal Project
By**



Wild About

**Stop Motion Animation
Animal Project
By**



Create and Engage with Stop Motion Animation

Teacher Feature



Using stop motion animation captures students' imagination, gives them tools to be creative, and brings learning to life. Getting started is simple: students need a stop motion app and an inanimate object. Most items to set the scene can be found around the classroom, at home, or can be created with available art supplies.



To get started, open the stop motion app on the device and position the camera to capture the entire scene. Position the inanimate object in the scene and use the stop motion app to take a photo of the object. Move the object a tiny bit and take another photo. Move the object a little bit more and take another photo. Repeat this action over and over again. When all the photos are played together quickly, the object looks like it's in motion!

Technology Tips:

1. Use a simple and free stop motion app that works with your available technology.
2. Keep the scene and camera aligned by utilizing the app's onion skin tool. This tool allows a transparent image of the previous photo to be seen before capturing the next one.
3. Move the object small increments at a time.
4. Make sure that your hands and hair are out of the way before taking a photo.
5. Take multiple photos of the object in one place if you want it to stay in a place before moving.
6. Adjust the speed of the animation to speed it up if too slow or vice versa.