



VIRTUAL LESSON

To learn more about this program visit www.tetonlandtrust.org.
To have a Teton Regional Land Trust staff member present a live Zoom lesson with your students, please reach out to Hilary Ordonez via her email, hilary@tetonlandtrust.org.

Over the past 30 years the Land Trust has been working to protect important habitat for Sandhill Cranes. In order to continue the momentum, we have debuted a *Cranes in the Classroom* project that aims to educate and inspire our local youth.

The goal of the *Cranes in the Classroom* program is to nurture an appreciation of Sandhill Cranes while engaging elementary aged students in the protection of our natural resources. Students learn how to identify cranes, all about their family bonds, their habitats and diet, and why they are important in human history and culture. Student also learn why cranes sing and dance to communicate and why people around the world celebrate them.

Central to our presentation is highlighting the interaction between cranes and humans over thousands of years, what cranes represent to different cultures, and how cranes are depicted in art in many time periods and cultures of human history, including today.



We are excited to develop our *Cranes in the Classroom* program into a virtual presentation and with DIY options available to all students and educators who are interested. We will offer a recorded presentation and slideshow that can be watched online, as well as a script, PowerPoint presentation, suggested art projects, and material list for those teachers who would like to present the information themselves. All of these components can be found on our website www.tetonlandtrust.org. We hope students will carry their new knowledge of cranes through their childhood years and stay engaged with these magnificent birds throughout their lives.

We would especially like to thank the Hamill Family Foundation and Intermountain Aquatics for providing support for the Cranes in the Classroom programming.



WHAT YOU WILL NEED

- Computer
- Tape measure
- Phone or device to play crane sounds
- For DYI – Printed Instructions

PRESENTATION

Slide 1 - Introduction

The purpose of our program today is to educate you about Sandhill Cranes and why it is important to protect their habitat. You will learn all about these very special birds that start to arrive in Teton Valley in April to nest and raise their young throughout the summer. In the fall, large numbers congregate before flying south to their wintering grounds. We are very lucky to have these birds here. Today you will learn a lot about cranes!

Section 1

SANDHILL CRANE IDENTIFICATION – SLIDES 2-11

Slide 2 - In this section we will cover how to identify cranes and their physical characteristics.

Slide 3

- This is a Sandhill Crane.
- **Have you ever seen a crane?**
- There are two types of cranes that live in the United States.
- One is the Sandhill; the other is the Whooping Crane.
- There are other kinds of cranes that live in other parts of the world, too.

Slide 4

- There are lots of cranes around the world.
- Let's talk about what makes a Sandhill Crane a Sandhill Crane!

Slide 5

- Cranes are big birds, one of the biggest in North America.
- They stand 4-5 feet tall.
- How tall are you?
- A crane's wingspan is even bigger.
- They can spread their wings 5-8 feet from wingtip to wingtip!
- **If you spread your arms out to pretend they are wings, how big are they?**

Slide 6

- **Measure your wingspan and height.**

Slide 7

- **What color is a crane?**
- Crane feathers are gray.
- In the spring, many cranes will use their bills to “paint” themselves with mud and dirt.
- This makes their feathers look brown or rust colored.
- **Does anyone have an idea about why cranes might do this?**
 - It’s for camouflage so they will be the same color as the dirt around them and they will be hard to see when they’re sitting on their nest.
- **What other colors do you notice on the crane?**

Slide 8

- Sandhill Cranes have a **red patch** on their heads.
- This is actually bare skin that can change in size to express how a crane is feeling.
- Sometimes this red patch will show other animals that they are excited, sometimes it means they feel threatened, and sometimes it means STOP, PAY ATTENTION!
- The patch can change in size and can become brighter or duller depending on the crane’s mood.

Slide 9

- **What else do you notice about cranes?**
- **They have Long Legs:** Cranes live in wet, soggy places called wetlands. Long legs help them walk through tall grass and wade in shallow water where they nest and feed.

Slide 10

- **They have Long Beak:** Cranes use their long, hard beaks to dig for food in the ground and shallow water.
- They also use their beak to drive away other cranes or predators.
- **What is a predator?**
 - A predator is an animal that hunts other animals for food. Some examples of predators who might hunt cranes are coyotes, foxes, skunks, golden eagles, and even dogs.
- The long neck is useful for reaching for food and for looking over tall grass for predators.
- **Feet: Does anyone know what this is? (Point to the center photo)**
 - It’s a crane’s foot. Crane feet are strong, with long toes that help them walk gracefully through marshy and grassy areas. Cranes do not have webbed feet like a duck or a swan. That’s because they don’t swim very often.
- **Do you notice anything about their toes?**
 - They have a funky hind toe! (Point to the hind toe).
 - This toe is very short and doesn’t allow cranes to perch in trees.
 - Other birds like eagles and herons have a longer hind toe which can wrap around a branch like a thumb!
 - Cranes can’t hold onto tree branches, so if you see a bird standing in a tree, it is not a crane.

Slide 11

- **Have any of you ever heard a crane call? (Play crane sounds on device)**
- Cranes make a loud bugling call which can be heard up to four miles away!
- If you are at school and you are standing outside and listening carefully, you could hear cranes who are down by the Teton River! Many times, we will hear cranes before we ever see them flying because their voice carries so far.

Section 2

SANDHILL CRANES IN THE ROCKY MOUNTAINS – SLIDES 12-23

- In this section we will cover Sandhill Cranes in Idaho. They are a part of the Rocky Mountain Population

Slide 12

- In the spring each year, cranes start arriving back in Teton Valley from their winter homes in New Mexico and Arizona.
- **Has anyone seen or heard any cranes this year?**
- Cranes who are 4-5 years old find a partner who they will stay with for their whole lives. Cranes can live for 20 to 30 years, which is a long life for a bird.
- Crane couples usually return to the same next site that they used the year before. Cranes have two homes, a winter home and a summer home, and they always like to return to the same neighborhood each year, where they feel safe.

Slide 13

- **Does anyone know what this is?** Yes, it's a crane's nest!
- Cranes build a large, simple nest on the ground (remember, they can't hang out in trees!). Having a nest on the ground is very dangerous because it can be attacked by many predators. They usually like to build their nests where they are surrounded by water.

Slide 14

- **Can anyone think of a reason why they build nests surrounded by water?**
 - By building their nest on the ground surrounded by water, they can hear an approaching predator who is splashing through the water, which alerts them so they can make an escape or prepare to defend their eggs or chicks. Baby cranes and eggs are defenseless and rely on their parents to protect them.
- Cranes will aggressively chase of predators using 3 weapons.
- **Can you think of what weapons a crane could use?** Answer on neck slide.

Slide 15

- **Their Wings:** their wings are very strong from flying long distances, and they can deliver a powerful blow. By spreading and flapping their wings they also appear big and scary to a predator.
- **Their Toes:** their toes have razor sharp claws that could hurt anything that comes too close.
- **Their Beak:** their beak is dagger like and with their long necks they can strike with great accuracy at distances up to 4 feet.
- **If you see a crane nest, you have to be very careful not to get too close to it. A crane could view you as a predator, or they might get scared and leave their nest.**

- Cranes normally lay 2 eggs a few days apart. Both parents take turns incubating, or sitting on, the eggs until they hatch.
- Eggs take about 30 days to hatch. Right after they hatch, baby cranes look like this!

Slide 16

- Baby cranes are called chicks.
- When they are a few weeks old they are called colts, just like baby horses.
- Crane chicks are able to do many things right after they hatch.

Slide 17

- Chicks can see from the moment they hatch.
- This helps them know who their parents are. Crane chicks have strong beaks and can start taking food from their parents when they are a few hours old.
- They have fluffy cinnamon-colored feathers called down that keeps them warm. You guys probably know how warm a down jacket is! Baby cranes are born with a built-in down jacket!
- Their reddish-brown color helps hide them from predators.
- Crane chicks can stand up and walk with their parents shortly after they hatch.
- Crane colts grow very fast! For the first two months, they grow about an inch every day.
- **Can you imagine if you grew an inch every day?!** If you grew as fast as a baby crane, you would be taller than your house right now!
- To grow that quickly, cranes need to eat a lot of food.
- Cranes are omnivores.
- **Does anybody know what an omnivore is?**
 - That means they will eat anything they can find in the wild, meat or plant! Other omnivores are bears...and humans!

Slide 18

- Cranes will eat frogs, mice, other rodents, worms, water plants, insects, snakes, bugs, small birds, and crawfish that they might find in a wetland.
- They will also eat seeds, wheat, barley, and corn that they can find in farm fields.
- We've even seen them eating potatoes out of fields!
- They will warm cold or frozen potatoes under their wings.
- Being able to eat anything has helped cranes survive for millions of years.
- As you can see, cranes will eat whatever food is available. During good years, when there is plenty of food and water, both colts will grow up big and strong.
- But sometimes, especially in drought years when there is not a lot of rain and temperatures get too hot, the parents can't find enough food for both colts and the weaker one won't survive.
- So, remember that when it's rainy and muddy and you don't want to go outside, all the wetness is really good for cranes!

Slide 19

- We talked earlier about how cranes find food and build their nests in a **wetland** area.
- **Can anyone tell me what a wetland is?**
 - Wetlands are wonderfully wet places that are home to many plants, grasses and animals. **Can you think of any other animals that might live in a wetland?**

- Moose, fish, beaver and lots of other bird species rely on wetland areas.
- Wetlands are great places for animals to live and they are helpful for people too since they can help control flooding and they clean our water for us!
- Cranes also find a lot of their food in agricultural fields. They like it best when the fields have been cut and the crops harvested since they can eat the leftover and spilled crops and be able to see all around them.
- Lots of other animals spend time in agricultural fields. **Can anyone think of animals that also utilize farm fields?**
 - Deer, elk, grouse, and sometimes even grizzly bears will make their way into grain fields.
- Since Teton Valley has a large wetland and many grain fields, and because the wetland and the fields are pretty close to each other, our valley is a very special and important place for cranes. They can easily travel from their nest sites in a wetland to the nearby farm fields to eat.

Slide 20

- By the end of the summer here in Teton Valley, crane colts have to be strong enough to travel south with their parents to their winter home.
- When big groups of animals travel to a different area all at once, it is called **migration**.
- When cranes migrate, they stretch their necks out straight in front of them and their long legs straight out behind them and fly for hundreds of miles.
- Cranes flap their wings very slowly.
- Cranes look different from other flying birds, like geese and herons.

Slide 21

- **Can you spot the differences?**
 - Geese have short legs and a stockier body
 - Heron fly with their long necks tucked against their body in an S shape.

Slide 22

- In Teton Valley, we have up to 2,000 cranes that come here at the end of the summer as part of their annual migration.
- They come because there is plenty of grain from our farm fields near the Teton River.
- They eat for about 3 straight weeks to gain enough strength to make the long migration.
- Right around when school starts back up, the cranes in Teton Valley will suddenly all get up and fly away!

Slide 23

- **Why do you think they leave here and go south?**
 - They will leave Teton Valley and fly to New Mexico or Arizona, which is warm and where they can find food throughout the winter, while our valley is covered in snow.
- Migration is a dangerous time for all birds.
- **What do you think some dangers for migrating birds might be?**
 - Getting caught in storms
 - Flying into power lines
 - Flying over mountains

- Wind Farms
- Not finding enough food
- It's a tough journey and many cranes won't make it to their winter homes, especially the young birds that were born in the spring and are migrating for the first time.
- Cranes fly up to 500 miles in one day, but that is a very long way for a young crane.
- Parents who are flying with their young for the first time will often stop along the way to let everyone eat and rest.
- The cranes will spend the winter in New Mexico and Arizona eating, resting, and getting ready for their return to Teton Valley in the spring, where they will nest and raise another family.
- They have been repeating this cycle year in and year out for millions of years. It is pretty amazing when you think about it.

Section 3

SOCIAL BEHAVIOR – SLIDES 24-26

- In this section we will cover crane behavior including singing and dancing!

Slide 24

- When cranes are nesting and raising babies, they are very secretive. At all other times, cranes tend to gather in **flocks**, especially when migrating and in wintering habitat.
- Cranes mate for life and paired cranes will stay together during migration and raise young together each year.
- As we mentioned, crane parents tend to lay one or two eggs and the resulting crane colts will stay with their parents constantly until the next spring.

Slide 25

- They communicate with each other through calls, or **vocalizations** which helps keep the family group together.
- These calls have special meanings which the cranes understand from the moment they're hatched.
- Family members keep in contact with each other through their calls when they are in groups and when they are flying.
- Let's listen to some crane calls again: **(play crane sounds again)**

Slide 26

- Cranes also have other behaviors that are understood by all other cranes.
- The behavior that cranes are most famous for is their dancing.
- Cranes are considered the best dancers in the animal kingdom.
- **Why do you think cranes dance?**
 - To attract a mate
 - When they are excited and happy
 - When they are frustrated
 - To release pent up energy - just like you might want to run around the playground outside after being at your desk all day!

- Dancing cranes bow to each other, bounce in the air as high as 20 feet, hop about, flap their wings, throw back their heads, pirouette, toss sticks in the air, stand on one foot then the other, and jump up high with stiff legs.
- **Would you like to try to dance like a crane?** You can get up and practice a few dance moves if you want!

SO NOW YOU GUYS KNOW A LOT ABOUT SANDHILL CRANES!

Section 4

CRANES AND CULTURE – SLIDES 27-28

- In this section we will cover the history of cranes, culture, and our own Greater Yellowstone Crane Festival.

Slide 27

- Did you know that cranes are the oldest living species of bird in the world?!
- Cranes were around 10 million years ago, before humans walked the earth.
- Humans have been watching cranes since the beginning of our history, and in most cultures, they are admired and celebrated.
- Cranes are admired because they are a lot like us in that:
- They have strong family bonds, they sing and dance, and when they gather together in large groups in the fall, it is not only an amazing spectacle but also signals the change of season and annual harvest.
- To survive for so long, cranes have had to adapt to many changes in their environment.
- Cranes have lived in Idaho for thousands of years.
- As more and more people move to Idaho and build new houses and other buildings near the rivers and in farm fields, it becomes harder and harder for cranes to find safe places to build their nests and find food.
- Cranes have been inspired us to celebrate their migration for thousands of years through art, dance, and community celebrations.
- Teton Regional Land Trust wants to make sure that cranes and their wetland and grain field habitats are protected so that Sandhill Cranes can live peacefully with us for thousands of more years.
- We hope that now that you've learned about cranes that you will feel the same way.
- Each year, we celebrate their migration here in Teton Valley through the Greater Yellowstone Crane Festival.
- We hope to inspire our community to help protect cranes and their habitat and wish them well on their journey.

Slide 28

- As part of our festival, we would love for you guys to create some crane art and you can email it to us and enter it into a contest for some cool prizes! Any kind of art is great!
- A dance video, paintings, drawings, clay, papier Mache, wood and nails...we would love to see anything you make that is inspired by cranes!
- Just email a picture of it, drop it by the office with your name and phone number, or mail it to us.

- Here is some artwork that people have made in other cultures as well as right here in Teton Valley!

When you are outside over these next few weeks, you might see lots of cranes flying or you might see them feeding in the fields and wetlands. We hope the cranes make you happy and proud to live in such a special place! Please remember not to disturb them because now is the time they are really trying to fill up on food to have enough energy for their long trip south.

Thanks for tuning in today! We hope you enjoyed learning about cranes. You can check our website (www.tetonlandtrust.org) for more about our 2020 Crane Festival and let us know if you have any questions!