# 2022 Notre Summer Reading
# Notre Dame - Bishop Gibbons
# English Department

**Tricia White * Karen Harp * John Verhayden**

We are pleased to roll out our Summer Reading Experience 2022

At Notre Dame - Bishop Gibbons we work to help keep students on track with learning. Part of this is requiring summer reading. Following a study done in 2020, shared in the American Education Research Journal, 52% of students lost an average of 39% of their learning gains during the summer. This evaluation included 200 million test scores, in 7,500 school districts.With this data, we also realize that summer is also a time for kids to recharge - and just be kids. In looking at balancing this, we are requiring one book be read, (details follow below), and a choice of articles, which reflect an Albany Diocesan Schools summer reading, which will be delivered to your email early this summer.

We encourage all students to read more than just the Summer Reading Experience book and articles. Read a new author, one you already like. Try a magazine, newspaper, blogs. Go to a bookstore and wander. Ask the staff for their favorites. Type a book you have liked into Amazon, and see what is suggested under “Frequently Bought Together”, or “Customers Who Bought This Also Bought”. Chances are you will find things you like to read. Fiction or nonfiction. It’s all good reading!

## Middle School (grades 6 - 8)

Mrs. Harp (harpk@nd-bg.org)

## The Assignment

Read the book assigned to your grade level, and complete a 10 entry dialectical journal which will be handed in the second full week of school in September. Directions for how to complete a dialectical journal follow.

**Grade 5 going into 6th**

The Secret Garden by Frances Hodgson Burnett
OR
Hatchet by Gary Paulsen

**Grade 6 going into 7th**

Starfish by Lisa Fipps
OR
The Worst Years of My Life by James Patterson

**Grade 7 going into 8th**
Holes by Loius Sachar
OR
Once by Morris Gleitzman

## High School

Mrs. White (tricia_white@nd-bg.org)
Mr. Verhayden (john_verhayden@nd-bg.org)

## The Assignment

Read the book assigned to your grade level, and complete a dialectical journal which will be handed in the second full week of school in September. Directions for how to complete a dialectical journal follow, as well as the number of entries required.

**Grade 8 going into 9th**
Lord of the Flies by William Golding

11 Dialectic Journal entries

**Grade 9 going into 10th**
And Then There Were None by Agatha Christie
OR
Fahrenheit 451 by Ray Bradbury

12 Dialectic Journal entries

**Grade 10 going into 11th**
Catcher in the Rye by J. D. Salinger

13 Dialectic Journal entries

**Grade 11 going into 12th**
Montana 1948 by Larry Watson

14 Dialectic Journal entries

## Dialectical Journal

The purpose of a dialectical journal is to identify significant pieces of text and explain the significance. It is another form of highlighting/annotating text and should be used to think about, digest, summarize, question, clarify, critique, and remember what is read.

This is an excellent way to more fully understand a text.

**Quote**
Find a quote which you feel is significant. It can be significant to the story, or it may be a piece that is significant to you personally. The quote may also be a question which you have about a character, event, theme, etc.

**Response**
Each response should be 3 - 4 sentences.

1. Raise questions about the beliefs and values implied in the text.
2. Give your personal reactions to the passage.
3. Discuss the words, ideas, or actions of the author.
4. Tell what it reminds you of from your own experiences.
5. Write about what it makes you think or feel.

**Example**

(From Night by Elie Wiesel)

**Quote**

"Human suffering anywhere concerns men and women everywhere."

**Response**

This quote shows one of the themes of the book, which is the world being responsible for wrongs that are done to other people. If people do not stand up to what is wrong, the world will spin downward. This is like the idea that any behavior that isn't spoken against, is acceptable. For example, a teen drinking a lot and coming home and not having their parents speak to him or her about it could seem

**Attached are reading lists for extra reading ideas outside of the required Summer Reading Experience.**

June 8, 2022

Dear students and families,

Congratulations on another successful school year; we are all incredibly proud of everything that you accomplished. As you start thinking about your summer plans, we wanted to share that we will be continuing our "Diocesan-Wide Read" initiative with some changes. All students, teachers, and staff will be reading a set of STREAM articles (science, technology, religion, engineering, art, and math) as part of our summer reading program. Families are also more than welcome to read the articles as well. The articles all present topics that we think you will find interesting and engaging. Our hope is that these articles will spark meaningful discussions about our ever-evolving world and help to create a stronger sense of community.

**Middle School: Grades 6-8**

**Required reading:** Students should read the articles provided. They all have communication as a theme.

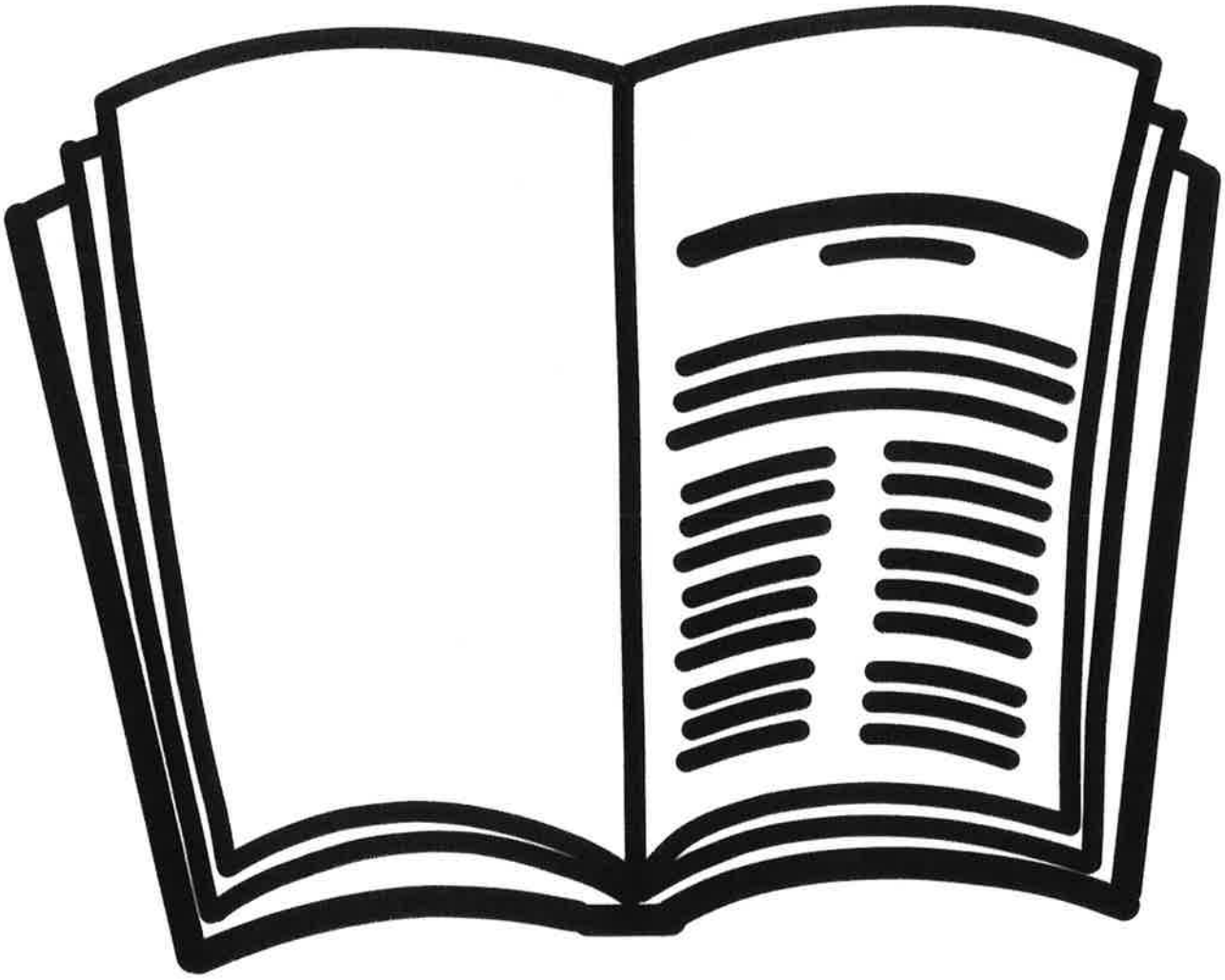
**Required assignment:** While reading the articles students will be asked to take notes and answer a series of questions.

**High School: Required Text and Assignments for All Students, Grades 9-12**

**Required reading:** Students should read the articles provided. They are on various topics.

**Required assignment:** While reading the articles students will be asked to take notes and answer a series of questions.

# Middle School Summer Reading Assignment



# Close Reading Annotations

## Annotation Guide

### Before Reading

 **Preview the text** by looking at it quickly to notice its title, structure, and things that stand out, like images and headings.

 **Number the paragraphs** and circle the numbers so that you can reference them later.

### While Reading

 Underline the **topic sentences** and main idea.

 Circle **powerful words** and phrases.

 Draw a star next to any **important ideas**.

 Put a question mark next to **confusing parts** or anything you have a question about.

 Box **words you don't know**.

 Mark interesting or **surprising parts** with an exclamation point.

 Draw a heart next to your **favorite part(s)** of the text.

**C** When you have a **connection**, mark it with a **C**.

**E** Put an **E** next to **evidence** that supports the main idea.

 Write **your thoughts** in the margin.

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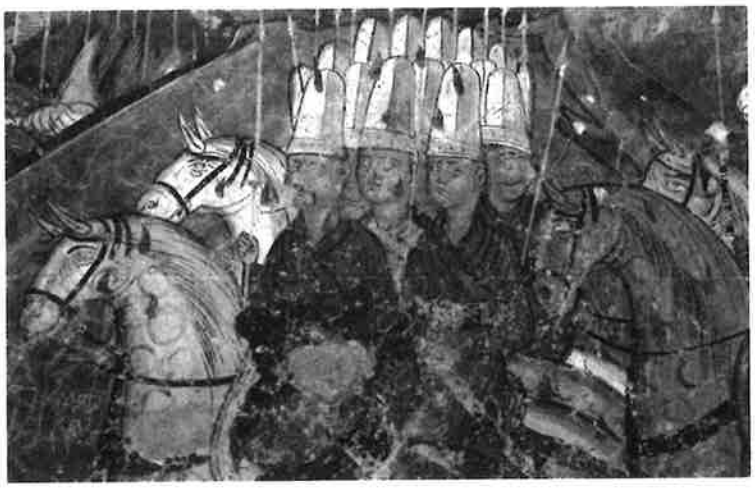
Wonder of the Day **#1449**

# What Is the Oldest Painting?

Listen

28 Comments



**SCIENCE**

## Have You Ever Wondered...

- What is the oldest painting?
- Where have the oldest cave paintings been found?
- How can scientists tell how old a cave painting is?

Do you love art? We do! Not only do we love looking at all sorts of different kinds of art, from paintings and sculptures to architecture and photography, but we also love creating art! When our creative juices get flowing, there's nothing better than putting pencil or paintbrush to paper or canvas to create a new masterpiece.

The history of art is filled with creative works of genius from people of all walks of life. After all, art has been around a long, long time. How do we know this? Just look at any art museum! Most artmuseums are filled with all sorts of old paintings that are hundreds of years old.

In reality, though, the oldest paintings in the world aren't hanging on the walls of any art museum. Where are they? They're painted on the walls of ancient caves! That's right! Neanderthal man was the first great artist in human history.

For years and years, the consensus amongst art historians was that the earliest human artistic activity began in Western Europe. Researchers based this belief on cave paintings found in places such as the Chauvet Cave in France and the El Castillo Cave in Spain.

In these caves, researchers found primitive paintings of animals, such as lions, horses, and hyenas, as well as hand stencils. Experts estimated that some of these paintings could be as much as 40,000 years old. In fact, one painting – a red disk painted on the wall of the El Castillo Cave in Spain – was estimated to be 40,800 years old and regarded as the oldest painting ever.

Recently, however, historians have changed their views dramatically in light of new findings thousands of miles away in Indonesia. In the karst caves of Sulawesi, an island near Borneo, archeologists discovered cave paintings decades ago. These paintings hadn't been dated until recently, though. What scientists learned surprised and amazed them.

Not only was the subject matter of the paintings – hand stencils and animals, such as warty pigs and miniature buffalos – similar to the prehistoric cave paintings in France and Spain, but so were their ages. Scientific dating revealed that the Sulawesi cave paintings were as much as 40,000 years old, challenging the long-held view of Europe as the birthplace of art.

Scientists determined the ages of the cave paintings thanks to " cave popcorn." Archeologists noticed calcite deposits, known as coralloid speleothems or " cave popcorn," that had grown over some of the paintings. These deposits contain minute amounts of radioactive uranium.

Scientists know that radioactive uranium decays to thorium over time. They measured the ratio of radioactive uranium to thorium in the " cave popcorn" layers to determine a minimum age of the cave paintings underneath. Experts estimate the oldest of the Sulawesi paintings is at least 40,000 years old, but they note that this is a minimum age and the painting could be much older.

For art historians, the Sulawesi paintings reveal that early works of art were being created independently thousands of miles away at the same time. Not only do these findings challenge the longstanding view that Europe was the birthplace of art, but they also suggest that perhaps art's origins are even older than ever imagined. Some experts now believe that the similar cave paintings in Europe and Indonesia could point to art's originating in Africa as long as 100,000 years ago!

## Wonder Words (18)

**ART, CAVE, WALL, DATED, HAND, DISK, PAINTING, STENCIL, KARST, DEPOSIT, DECAY, RATIO, URANIUM, THORIUM, CONSENSUS, PRIMITIVE, DRAMATICALLY, LONGSTANDING**

### Wonder What's Next?

We believe tomorrow's Wonder of the Day might really grow on you!

Feeling artistic? Check out the following activities with a friend or family member:

Are your creative juices flowing? It's time to let them out! Grab your easel, a canvas, a palette, and a set of paints. What will you paint? It's up to you! Be as wildly creative as you want to be. You could paint a portrait of a parent or a lovely landscape. How about an abstract aardvark? Or a black-and-white badger? Put your imagination to the test and paint a picture your friends and family members will praise!

Have you ever seen cave paintings that might be 40,000 years old? If you can't travel to Indonesia, don't worry! You can see photographs of these amazing creations by visiting In Photos: The World's Oldest Cave Art (http://www.livescience.com/48199-worlds-oldest-cave-art-photos.html) What do you think? Were these ancient artists talented or not? Share these images with a friend or family member to get their opinion.

Up for a challenge? Paint your own antique portrait! No, you don't have to paint a picture and then wait 50 years. You will, however, need some acrylic paints and an idea of what to paint. When you're ready to turn your painting into an antique, jump online and follow the directions for How To Create a Vintage, Rust, Aged and Crackle Effect with Acrylic Paint (http://www.artpromotivate.com/2013/06/create-vintage-crackle-acrylic-paint.html) . When you're finished, show your painting to friends and family members. How old would they guess your painting is? Do they think it looks like an antique? Have fun creating an old painting!

http://wonderopolis.org/wonder/what-is-the-oldest-painting

## Questions on, "What is the Oldest Painting?"

A. How can art be a form of communication? What did the art described in the caves communicate about the lives of the artists?

B. After reading, what are two (2) questions that you still have that you want to explore further?

C. How was science used to determine new ideas about the history of art? Make sure to provide evidence from the text.

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Wonder of the Day **#2833**

# Do Animals Like Art?

Listen

28 Comments

**ARTS & CULTURE** — Entertainment

## Have You Ever Wondered...

- Do animals like art?
- Can animals create art?
- Do animals have their own forms of art?

Do you have a favorite piece of art? Is there a painting or sculpture you love? Maybe you could listen to a certain song for hours. You might watch the same film over and over. Perhaps you even know a favorite poem by heart.

Humans have long enjoyed and appreciated all of these forms of art. Of course, we all have personal preferences. But most people could name a piece of visual, musical, literary, or performance art they enjoy.

All this talk about art has us WONDERing . . . what about other animals? Do they like art? Maybe dogs enjoy impressionism while cats prefer self-portraits. Perhaps your goldfish loves to listen to

The answer is complicated. Some studies have shown that animals react to music and performance art. However, it's difficult for researchers to know exactly what's going on in an animal's brain.

Two studies have shown that fish can tell the difference between styles of music. Both koi fish and goldfish could pick out the tunes of Johann Sebastian Bach from those of other artists. However, experts can't say whether the fish actually enjoy one type of music over another.

Despite this, many animals have taken part in the creation of art. One famous example is Koko the gorilla. She painted a bird complete with wings. Her gorilla friend, Michael also picked up the paintbrush. He created several paintings, including one of his dog, Apple.

Some zookeepers even offer painting as an enrichment activity for animals. These activities are meant to help animals' brains grow and stay alert. They're important, as days in captivity can be quite boring. Elephants, chimpanzees, seals, parrots, and many other animals have created their own art inside zoos.

Still, experts are unsure of the effect art has on the animals' brains—and whether they enjoy it. Some individual animals certainly seem to like creating art. However, no larger studies have determined the general impact of art on animals.

Others ask a different question: Do animals have their own forms of art? After all, anyone who has listened to bird song would admit it's music to the ears. Could it be that animals have been creating and enjoying their own art all along? Perhaps humans simply haven't recognized it.

A prime example is the bowerbird, which lives in Australia and New Guinea. Male bowerbirds are known for building beautiful nests to attract a mate. They gather the most colorful leaves and stones they can find. The birds even use discarded pieces of plastic. Then, they use their own artistic flair to add these colorful items to the nest. There's no denying a bowerbird nest is a work of art.

Could your pet create a masterpiece? Might there be more to the dawn chorus? Perhaps! It's difficult to know for sure, but many animals do seem to enjoy creating art in their own way.

STANDARDS:CCRA.R.4, CCRA.L.3, CCRA.L.6, CCRA.R.10, CCRA.SL.1,CCRA.R.1, CCRA.R.2, NCAS.A.1, NCAS.A.2, NCAS.A.3, CCRA.W.2, CCRA.W.4, CCRA.W.10, CCRA.L.1, CCRA.L.2

## Wonder Contributors

We'd like to thank:

Lylah for contributing questions about today's Wonder topic!

Keep WONDERing with us!

## Wonder Words (9)

**FLAIR, REACT, CREATION, PREFERENCES, PERFORMANCE, GATHER, DISCARDED, DETERMINED, ENRICHMENT**

**Wonder What's Next?**

We believe you'll think tomorrow's Wonder of the Day is dreamy!

## Try It Out

Find an adult friend or family member who can help you with the activities below.

Do you have a family pet? If not, how about a favorite type of animal? If this pet or other animal had a chance to create their own work of art, what do you think it would be? Would your dog paint a picture of your family on a walk together? Maybe your cat would sculpt a bird or other prey. Talk with a family member about what you think your pet or chosen animal would use as the subject of their art. Explain why you think so.

Check out these animal masterpieces from the Houston Zoo (https://www.houstonzoo.org/make-memories/animal-art/) ! Do you see any familiar shapes in the paintings? Do you have a favorite animal artist? Show a few of your favorite pieces to a friend or family member.

Learn more about the bowerbird on Kiddle (https://kids.kiddle.co/Bowerbird) . After reading, create your own work of art! Draw a picture of a bowerbird nest—complete with at least one bird who lives there! On the back of your picture, write a paragraph summarizing what you've learned about the bowerbird.

## Wonder Sources

https://www.dana.org/article/elephants-that-paint-birds-that-make-music/ (accessed 22 Oct. 2021)

https://www.bbc.com/future/article/20140723-are-we-the-only-creative-species (accessed 22 Oct. 2021)

https://www.npr.org/sections/13.7/2016/03/27/471446740/the-complicated-relationship-between-animals-and-art (accessed 22 Oct. 2021)

https://www.vice.com/en/article/d38zwz/animals-appreciate-art (accessed 22 Oct. 2021)

https://learnersdictionary.com/ (accessed 22 Oct. 2021)

## Questions on, "Do Animals like Art?"

A. According to the article, how do some animals respond to art?

B. After reading, what are two (2) questions that you still have that you want to explore further?

C. Take a look at some of the art created by the animals at the Houston Zoo (link in the article). What do some of these pieces of art communicate to you? Explain your answer.

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Wonder of the Day **#2341**

# Which Animals Understand Humans Best?

Listen

28 Comments

**SOCIAL STUDIES** — History

## Have You Ever Wondered...

- Do animals understand us?
- Who was Koko the gorilla?
- Can we teach animals to communicate?

Have you ever had a chat with an animal? Many pet owners talk to their animals. How much do the pets really understand? There's not much evidence that our fish or lizard pets understand us. However, dogs respond when we say, "Sit," or "Stay." A 2016 study showed that dogs really do understand human speech. This isn't unique to our canine friends! Potbelly pigs, chimpanzees, and elephants all understand some human language. Scientists believe we may even be able to talk to dolphins one day!

Some animals are very good at communication. They understand humans better than other animals do. A grey parrot named Alex knew 150 words and spoke in full sentences. Chaser, a border collie in South Carolina, knows all the names of her 1,022 toys. She'll fetch whichever one you ask

Koko was born at the San Francisco Zoo on the 4th of July in 1971. The zoo named her Hanabiko, which is Japanese for "fireworks child." Her caretakers called her "Koko" for short. Koko began learning American Sign Language after her first birthday from a psychologist named Francine "Penny" Patterson. With Patterson's help, Koko learned 2,000 words!

Koko was very friendly. She enjoyed talking with most humans. Everyone who met her could tell she was smart. What really set Koko apart, though, was her personality. Koko didn't just communicate her needs — she also told jokes and played tricks on her trainers. Koko even insulted people she didn't like by calling them words like "devil" and "dirty toilet." That wasn't very nice! Luckily, Koko liked most of the people she met.

It didn't take long for Koko to gain global fame. She even became friends with several celebrities. She met Mr. Rogers in 1998 after watching his TV show for years. Koko and Mr. Rogers got along well. She even signed "Koko-love" to him. Later, she met Robin Williams in 2001. On camera, Koko started a tickle fight with Williams as her trainers laughed. Williams and Koko became good friends.

Koko could even use a camera. She loved to take selfies! National Geographic made one of Koko's selfies its cover photo in 1978. The picture was one she took of herself in the mirror. Koko was on the cover of National Geographic again in 1985. In that picture, she held her kitten, whom she named "All Ball." Koko's love for All Ball touched global audiences. She became known as a cat lover. Koko raised three kittens during her life.

Koko spent most of her life around humans. Still, she had many animal friends. In addition to her cats, she had a gorilla friend named Michael. Michael learned sign language from Koko and Dr. Patterson. The two gorillas lived together and were best friends. Koko also became friends with gorillas Ndume and Snowflake. Koko was proud to be a gorilla. When asked to describe herself, she said she was a "fine animal gorilla."

Koko taught us a lot about animals' brains. Because of her, zoologists now think other animals might be able to understand us. What animal would you most like to talk to? Could your pets learn sign language like Koko? Maybe there's another way they could communicate.

STANDARDS:ELA.RH.6-8.2, ELA.RH.6-8.10, CCRA.R.1, CCRA.R.3, CCRA.R.10, CCRA.W.2, CCRA.W.3, CCRA.W.7, CCRA.SL.2

## Wonder Contributors

We'd like to thank:

Leah, Casey, pieter, Alisa, and Arianna for contributing questions about today's Wonder topic!

Keep WONDERing with us!

## Wonder Words (9)

**FAME, PROUD, RESPOND, UNIQUE, GLOBAL, PSYCHOLOGIST, CARETAKERS, ZOOLOGISTS, FETCH**

**Wonder What's Next?**

Tomorrow's Wonder of the Day will arrive just as requested!

## Try It Out

Find an adult friend or family member to help you with these activities!

Want to know more about Koko? This online magazine (http://www.koko.org/sites/default/files/root/journals/Gorilla_Journal_2015.pdf) has plenty of information for you! Keep a list of interesting facts as you read. Then, summarize what you learned for a friend or family member.

Koko isn't the only animal who can understand humans! Check out these other animals (https://blog.ted.com/talking-with-animals-7-examples-of-interspecies-communication/) who communicate with people. Which one do you find most interesting? Do your own research, and then write a paragraph explaining how that animal is similar to and different from Koko.

What animal would you most like to communicate with? Write a story in which you talk with your animal friend. Will you go on an adventure together? Solve a mystery? It's up to you!

## Wonder Sources


https://www.npr.org/2018/06/21/622160278/koko-the-gorilla-dies-redrew-the-lines-of-animal-human-communication (accessed 27 Feb., 2019)

http://time.com/5318710/koko-gorilla-life/ (accessed 27 Feb., 2019)

https://www.nationalgeographic.com/magazine/1978/10/conversations-with-koko-the-gorilla/ (accessed 27 Feb., 2019)

https://news.nationalgeographic.com/2018/06/gorillas-koko-sign-language-culture-animals/ (accessed 27 Feb., 2019)

https://learningenglish.voanews.com/a/dog-brain-research/3488724.html (accessed 27 Feb., 2019)

# Questions on, "Which Animals Understand Humans Best?"

A. Why is Koko's life so impressive? What does it tell us about animal communication with humans? Use at least two examples from the text to support your answer.

B. After reading, what are two (2) questions that you still have that you want to explore further?

C. Do the last "Try it Out" activity:
What animal would you most like to communicate with? Write a short story in which you talk with your animal friend. Will you go on an adventure together? Solve a mystery? It's up to you! Make sure your story is written in complete sentences and has a clear beginning, middle and end.

COMMONLIT

Name: _____ Class: _____

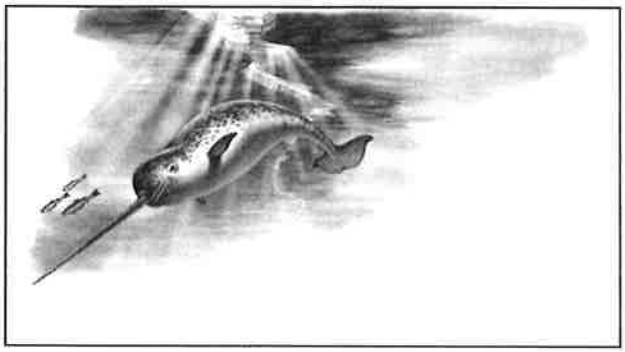
# Listening to Narwhals

*These "unicorn whales" buzz, click, and creak under Arctic ice*

By Linda Zajac
2019

*Narwhals are special ocean animals with long tusks, or large pointed teeth. In this text, Linda Zajac describes what scientists hope to learn about these interesting animals. As you read, take notes on why scientists want to learn more about narwhals.*

[1] In March, the water between Canada and Greenland, called Baffin Bay, is covered with sea ice. Scientists in a helicopter fly over, searching the whiteness for dark cracks. They spot one! Water erupts[1] through the crack, and spiral tusks like unicorn horns stick up above the surface. Bobbing in the water are several whales called narwhals.



*"Listening to Narwhals" by Phyllis Saroff is licensed under CC0.*

The narwhal is one of the most mysterious whale species[2] on Earth. Each male sports[3] a single tusk 6 to 10 feet long. Narwhals are the only whales with tusks. Scientists have many questions about how they use these overgrown teeth and how they survive[4] the dark winters under Arctic sea ice.

The tusks jut up while the whales breathe through their blowholes. When the researchers fly toward the whales, the animals dive. The chopper lands on the frozen ocean, more than 60 miles from shore, and Dr. Jens Koblitz climbs out. He studies animal sounds at the BioAcoustics Network in Germany. To record narwhal sounds, he works with Dr. Kristin Laidre, a biologist at the University of Washington, Seattle. She studies mammals that live far north, in the Arctic.

They and their co-workers want to know what narwhals need to live. More than 100,000 narwhals are alive today. They migrate from their summer waters around Greenland, Canada, and a few islands farther east to spend the winter under Arctic ice. In the dark, they feed on

1. **Erupt** ***(verb)*** to break or explode out of something
2. **Species** ***(noun)*** a group of similar living things
3. to wear proudly; to show off
4. **Survive** ***(verb)*** to continue to live even though there is a serious threat to one's life

fish, squid, and shrimp. By staying under the ice, they avoid orcas ("killer whales") and other predators.[5]

[5] But as the average global temperature increases, the Arctic ice is shrinking. For now, the narwhal is not endangered.[6] But Dr. Laidre and her research partners showed that the narwhal will face a severe threat as the ice melts. That's where Dr. Koblitz's work comes in. "We have very little knowledge of the animals in that area and the impact[7] of climate change on these animals," he says.

Minutes after the helicopter lands, the narwhals return to the surface. Dr. Koblitz lowers a weighted line into the icy water. Attached to the line are 16 underwater microphones strung together, about a yard apart. Each sound from a narwhal hits each microphone at a slightly different time. When Dr. Koblitz records, he captures information about how the whales dive and rise as they hunt for food.

"It's a very challenging environment,"[8] he says. "The windchill is minus 5 to minus 22 degrees Fahrenheit. When the wind dies down, it's incredibly silent. There's no sound aside from our footsteps on the snow."

Far below, in near-total darkness, narwhals buzz, click, and creak. They can dive a mile or deeper, hunting for halibut[9] on the seafloor.

Like bats, narwhals use echolocation. The whales emit[10] clicks, or sonar pings. When that sound wave hits an object, like a fish, it bounces back, producing an echo. "They use sonar to find holes in the ice and prey in the pitch dark," he says.

[10] Over seven days, Dr. Koblitz visits 13 spots and records more than 10 hours of sounds. "I have to quickly get everything back inside the helicopter so my equipment isn't destroyed by the cold and ice," he says. "The cables instantly freeze."

When narwhals are far from an object, they produce from 5 to 50 clicks per second. As they home in,[11] they click faster—over 200 times a second! Dr. Koblitz discovered that narwhals emit a sonar beam narrower than that of any other animal. "It's similar to a flashlight," he says.

5. an animal that hunts other animals for food
6. a type of animal that is in danger of no longer living on Earth
7. a strong, powerful effect
8. **Environment** ***(noun)*** the sum of everything that surrounds animals and humans in the natural world, including the air, the water, and the soil
9. a type of fish
10. to send out
11. "Home in" is a phrase meaning finding and moving directly towards something.

## *Thinning Ice*

Narwhals face an uncertain future. For centuries, sea ice has blocked most ships from the Arctic Ocean. But scientists predict the ocean will be ice-free in a few decades.[12] Then ships will roam the narwhals' habitats.[13] The noise of the ships may drown out the whales' clicks.

Dr. Laidre says, "If we understand what sounds they use, we can better understand how human impacts, like increasing ship traffic in the Arctic, might disturb them."

That understanding can show humans how to help narwhals survive—for example, when and how to hush the loudest noises. Then maybe the narwhal can keep buzzing, clicking, and creaking in Baffin Bay.



12. a unit of time equal to ten years
13. **Habitat** ***(noun)*** the natural home of an animal or plant

## Questions on, "Listening to Narwhals"

A. What dangers do narwhals face? Use examples from the text to support your answer.

B. After reading, what are two (2) questions that you still have that you want to explore further?

C. How do narwhals communicate with one another? How might understanding the narwhal's communication system better help to save them?

# Talking Leaves

by ReadWorks

You are reading these words right now because of a written system of communication. However, not all languages have written forms! In the year 1809, a man named Sequoyah lived in such a world. Sequoyah was a member of a Native American tribe, the Cherokee. The Cherokee people speak their own language, but for hundreds of years they did not have a system of writing. The Cherokee have a strong oral history tradition. However, having no written system did cause some problems. Cherokee business owners could not keep written records. Cherokee soldiers fighting far from home could not write letters to their families. And the Cherokee couldn't spread information through newspapers or books.

Sequoyah was probably born around the year 1770, though no one knows for sure. He lived with his mother in a small village in the mountains of Tennessee. He did not go to school. Instead, he helped his mother work in the garden and tend cattle.

Sequoyah was a smart, quick learner. As an adult, Sequoyah taught himself how to make jewelry out of silver. He also became a blacksmith, using heat to shape metal into arrow points, knives, and shovels. He sold the things he made and became a well-known businessman in his town.

People came from all over to buy the beautiful objects Sequoyah made. Sometimes, English-speaking people came to his shop. Sequoyah noticed that these people had a special way of communicating with one another: they used marks on paper to record their thoughts and ideas. Sequoyah called these pieces of paper "talking leaves." He began to wonder why people who spoke Cherokee did not have a way to write down their words.

In 1809, Sequoyah decided he would invent a way to write the Cherokee language. His friends and family thought he was crazy. They said that it could not be done. They said it was a waste of time. Many people believed the Cherokee language did not need to be written down. The Cherokee tribe had grown strong and powerful without the use of writing-why did they need it now? But Sequoyah did not listen. He was determined to give the Cherokee their own "talking leaves."

Sequoyah set out to create a new writing system for the Cherokee language. At first Sequoyah tried to create a different symbol for every word in the Cherokee language-and there are thousands of words! He soon realized it would be very hard for people to remember so many symbols. Sequoyah came up with a new idea: he would make a picture to represent each syllable. After much hard work, Sequoyah created 85 symbols, one for each syllable in the Cherokee language. His work was complete.

Now that Sequoyah had invented a way to write the Cherokee language, he needed to see if it worked. He helped his daughter Ayoka learn each symbol. Together they practiced saying words to each other and writing them down. Even though she was only six years old, Ayoka learned to read and write very quickly. Sequoyah's invention was a success!

Sequoyah was excited to teach other Cherokee people how to read and write. He traveled from town to town offering to teach anyone who was interested. Sequoyah was disappointed to find that almost nobody wanted to learn to read or write. He had to come up with a new plan.

Sequoyah brought Ayoka with him to a nearby village and met with the local leaders. He told Ayoka to leave the room, then asked each person to say one word. He wrote all their words down and called Ayoka back into the room. When she read each word perfectly, the local leaders were convinced that it was possible to write their language. They decided to let

Sequoyah teach reading and writing to the people of their village.

Before long, Sequoyah's writing system had spread far and wide. Cherokee people living in all different parts of the country learned to read and write. They published books and newspapers. They wrote down speeches and laws. In 1825, Cherokee leaders made Sequoyah's system the official written language of the Cherokee people. Sequoyah was given a medal in recognition for all his hard work.

To this day, Cherokee speakers still use Sequoyah's writing system. In some parts of the United States, you can see street signs and billboards written in both English and Cherokee. Sequoyah will always be remembered for his important contribution to the Cherokee people.

## Questions on, "Talking Leaves"

A. Why did Sequoyah decide to create a writing system for the Cherokee language? What were the benefits of having this writing system?

B. After reading, what are two (2) questions that you still have that you want to explore further?

C. What character traits did Sequoyah have that helped him accomplish his goal of creating a writing system for the Cherokee language. Use at least two details from the text to support your answer.

# I Break Stuff for a Living

by ReadWorks

You know the best part about building a bridge? Finding out what makes it collapse.

This is the kind of thing I used to think about all the time when I was 10. At the end of every school day, the bus would drop me off about half a mile from my dad's house. To get to our neighborhood, I would walk across a wooden footbridge that was built over a dried-up riverbed.

That rickety thing must have been older than anyone on my street. It was so old, in fact, that water hadn't run under it for years. Kids would play in the riverbed, kicking soccer balls and chasing dogs into the brush. I'd sit on a rock and wonder what it would take to make the bridge fall down.

Eventually, curiosity and a hot summer day got the best of me. I won't go into too much detail. Let's just say it involved a few bicycles, some rope, and a lot of buckets. The affair ended with my dad telling me to go to my room. I was grounded for three weeks.

As soon as I was allowed to leave the house, he walked me down the street with a bundle of lumber. My dad was an architect, and that day he helped me figure out what made the bridge

finally crack. Then, we fixed it.

In middle school, I kept looking for other bridges to break. Every time a math teacher began reading from the textbook and drawing diagrams on the board, I'd slip into a daydream. It was impossible to focus in the classroom. But during lunch hour, I'd read about airplanes and space shuttles, flying hundreds of miles an hour through sky and space. How did anyone come up with this stuff? How could anyone be sure that they were safe?

I imagined suiting up crash test dummies for a supersonic test flight. I wondered: could NASA scientists be grounded, too?

One day in high school, I noticed my trigonometry teacher working on a notebook computer. His screen had two windows open. Both had black backgrounds and were filled with line after line of intense-looking words.

"It's a computer program," he explained. "I just figured out why it's broken."

"Who broke it?" I asked, without thinking.

"Well, I broke it," he responded. Looking at my perplexed expression, he added, "I mean, if you think about it, anything you're building from scratch is broken until it works, right?"

After that conversation, I started staying after school to help my teacher break his program. It was supposed to read 300 homework assignments that our class had completed on the computer, grade them, and then show him the lowest grades. If he could get this thing to work, he could spend less time filling out grades and more time helping the students who weren't doing as well.

The problem was that his program couldn't understand a lot of the answers it was reading. It had to do with the way some students chose to type out fractions and math symbols. Different students typed out their answers in different ways, but the program only spoke one kind of math, I suppose.

My teacher had made a bunch of fixes to the program, and now he was thinking of other ways that students could surprise the computer. Every time he broke the program, he could figure out a way to teach it a new trick.

I learned that breaking computer programs was the only way to figure out whether or not they would work for every possible condition. Testing my teacher's program was a lot like dragging buckets filled with sand onto an old, worn-out bridge.

The question, though, was who would be weird enough to act like my 10-year-old self when doing a high school math homework assignment. After a couple of weeks, we realized we were testing for things that would never happen, and stopped finding ways to break the program.

I started learning to code, taking classes online to become a software engineer. The next year, I found the perfect job, doing "Quality Assurance" work for a tech company downtown. I've been doing the same job, in different ways, ever since.

Working on the Q.A. team is kind of like waking up every day and finding new ways to break stuff. I talk to the engineers to see what they're trying to build. This week, it's an interactive web page that lets students see different pieces of a movie by jumping to different parts of the world on a map online.

Once they've got a prototype up and running, I create a fake person-a "test user"-on the computer. Instead of trying to break the map a hundred different ways myself, I turn my test user into its own program. The test user can try those hundred different things in just a few seconds, showing us what's broken, and helping the team decide what to fix. Whenever we update the program, everything must be tested by Q.A. to be sure the new version won't break.

Every once in a while, I write a test and find a bug that would be really difficult to fix. Sometimes, I break the system in a way that's so clever there's no point in making a fix. The team will tell me that no sane person would go to that much effort to break the system, so the bug will probably never cause us trouble.

I keep waiting for them to tell me to go to my room.

## Questions on, "I Break Stuff for a Living"

A. How can the "language" of code help solve real world problems? Provide at least two examples from the text to support your answer.

B. After reading, what are two (2) questions that you still have that you want to explore further?

C. How does the author use humor to explore the theme that curiosity and determination can help you achieve your goals? Use details from the text to support your response.

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# Parables and How Jesus Taught with Them

Jesus often used parables to teach people and to make a point. Parables are a Jewish style of storytelling. The stories are drawn from ordinary life. Parables usually contain some element that is strange or unusual, and they are used to illustrate or compare ideas. They do not define things precisely, but use comparisons to point us in the direction of an understanding of how God works. The meaning of parables is never too obvious, and indeed, the purpose of parables is not to settle issues, but to challenge us to think more deeply about the issues.

Because parables are drawn from everyday life, it would seem that Jesus used them in order to make it easier for his listeners to understand his message. However, if you read Matthew 13:10-17 (http://www.usccb.org/nab/bible/matthew/matthew13.htm#v10), you will see that Jesus did not expect people to understand what he was saying. If you think you know what the parable means at first glance, chances are you missed the point. This is because parables are not as clear as you might expect. There is always some doubt about the exact point of the story, and the result is that the listener or reader wonders why the story is so strange or unsettling??Hey, that's not supposed to happen that way!? You begin to think more deeply about the meaning of the parable. That is the goal?parables raise more questions than answers. They help us see beyond the obvious into the deeper meaning that Jesus had in mind. That is why the parables of Jesus continue to fascinate us two thousand years later.

Pick any of the parables listed below. Take time to read and reread it. If the parable can be found in more than one Gospel, read that version too. Think about what Jesus might have had in mind when he was telling that parable. What was he trying to get across to his listeners? How did Jesus want them to think or act differently after hearing the parable? How does it encourage you to think or act differently? Talk to God in the quiet of your heart about the parable. Ask him to help shed some light on it for you.

## The Two Houses

Luke 6:47-49 (http://www.usccb.org/nab/bible/luke/luke6.htm#v47); Matthew 7:24-27 (http://www.usccb.org/nab/bible/matthew/matthew7.htm#v24)

## The Closed Door

Luke 13:24-30 (http://www.usccb.org/nab/bible/luke/luke13.htm#v24)

## The Great Feast

Luke 14:16-24 (http://www.usccb.org/nab/bible/luke/luke14.htm#v16)

## The 10 Gold Coins

Luke 19:12-27 (http://www.usccb.org/nab/bible/luke/luke19.htm#v12); Matthew 25:14-30 (http://www.usccb.org/nab/bible/matthew/matthew25.htm#v14)

# Questions on, "Parables and How Jesus Taught with Them"

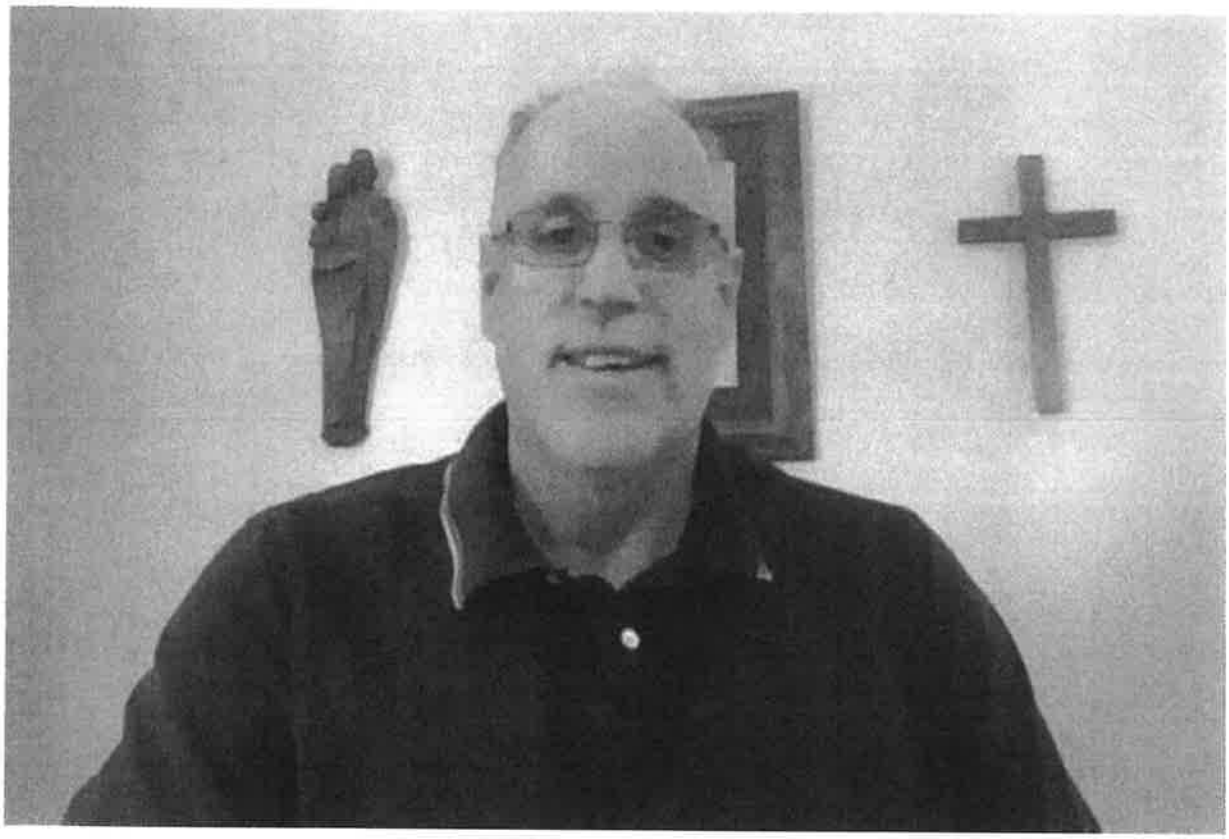
A. Why did Jesus often use parables to communicate his teachings?

B. Choose one of the parables listed at the bottom of the article and read it. Then complete the following activity described in the article, "Think about what Jesus might have had in mind when he was telling that parable. What was he trying to get across to his listeners? How did Jesus want them to think or act differently after hearing the parable? How does it encourage you to think or act differently?" Record your responses.

# Colorado man shares his love of math — and Catholicism — with students in Uganda

By **Catholic News Agency** May 3, 2022





*By Jonah McKeown / Catholic News Agency*

Since last summer, a Colorado man has been helping Catholic schoolchildren in Uganda using the two "universal" things that they share: Catholicism and mathematics.

Brad Jolly is a relatively new Catholic, having converted to the faith at age 50. He's a parishioner and active Knight of Columbus at St. John the Baptist in Longmont, Colorado, less than an hour northwest of Denver.

During summer 2021, Jolly tuned into a six-week online course, taught by Daniel Campbell, director of Denver's St. John Vianney Seminary Lay Division. The topic of the course was St. Joseph.

The online course was billed as an intensive, in-depth study of Christ's foster father, based primarily on Scripture, working through the basic chronology of St. Joseph's life and explaining the theological significance of events involving him. The impetus for the course, which attracted nearly 700 participants, was the Year of St. Joseph, which Pope Francis declared for the Church at the end of 2020.

It wasn't just fellow Coloradans taking the course, however. Also joining, from ten time zones away, were nearly a dozen young priests from Africa. On the video call, Jolly noticed several young faces on the

screen wearing priestly collars, and because the video call had several technological glitches that muted the audio portion, he looked them up online and sent them an e-mail asking if they would like him to record the evening session of the class so that they could hear it uninterrupted.

One of the priests he contacted was Father Samuel Okiria. Okiria serves in the rural eastern part of Uganda, a country in East Africa. Okiria has served in various capacities in the Diocese of Soroti, including as a teacher, parochial vicar, the bishop's private secretary, vice-chancellor, and most recently as a professor at a national seminary.

*Father Samuel Okiria. Courtesy photo.*

Okiria learned of the course after reading a May 2021 article on CNA. He said part of the reason he so much wanted to pursue the St. Joseph class, and to share it with his fellow priests, is that many of his fellow priests in his diocese are doing their pastoral work alone, with little or no assistance, and need encouragement.

In his email to the priest, Jolly offered to record the live Zoom call and send Okiria the video, since it was clear that internet problems were making it difficult for the Ugandan priests to join in the live sessions. Okiria was very grateful, and the two struck up conversation.

"We got to talking via email and we were talking about COVID, and the pandemic, and how their schools were completely shut down. They've been shut down much longer than we have, and much harder shut down," Jolly told CNA.

Father Okiria's parish is in an especially poor part of a largely agrarian region, where cattle farming and crops such as potatoes and cassava dominate. Resources are scarce for the Catholic schoolchhildren.

Wondering how he could help, Jolly turned to his love of math. As a worker in the high-tech industry, he's a whiz with numbers, and enjoys creating educational puzzles and resources.

Jolly offered to create math-based activities and resources for the Catholic school students in Uganda. In the months since, he and Father Okiria have exchanged puzzles, math games, and even a glossary Jolly

created listing common math terms, which has since been translated into four languages.

"One of the great things about math is that it is in fact universal. Now, the ways that we approach math are not universal…but the way that people come to the answers is really cool," Jolly said.

"I've found that the games that I'm presenting to the Ugandan students are also things that are delightful to kids here in Longmont."

Okiria, in return, has celebrated numerous Masses for Jolly and his family, for which Jolly says he is very grateful. Despite the time difference and a language difference, it's the same Mass, and Jolly said it has been meaningful for him to meditate on this fact.

"Just make the connection and see where it goes. Let the Holy Spirit take it where it needs to go."

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The St. John Vianney Seminary Lay Division is sponsoring a number of lectures and courses in the coming months, including a free lecture from Cardinal Stafford on the Liturgy of the Hours; a three-week course on the Eucharist; and a six-week course on the Sacred Heart. For more information, visit their website or contact them at 303.715.3195 or laydivision@archden.org.

## Questions on, "Colorado man shares his love of math — and Catholicism — with students in Uganda"

1. How has technology improved education in some areas of the world and provided opportunities to serve others? Use details from the text to support your response.

2. How is math universal and how can people learn from one another's ways of solving a problem?

3. What are some creative ways you could serve others by using new and old forms of communication?