

Crows are Cool! Finding the Extraordinary in the Ordinary Bird

Science & Nature Activities for Cooped Up Kids

Provided by the [Cornell Lab of Ornithology K-12 Education Team](#)

INTRODUCTION

Science and nature are naturally engaging! This week's resource has activities for K-2, 3-5, and 6-8 grade students on the same theme: **crows**. If you have students of different ages, we hope that having the same focus question (*Why are crows extraordinary?*) will make facilitation easier on you.

We know that not everyone has access to the outdoors at this time. If you do, our "Try it" activities and/or quests are great opportunities for your students to explore your neighborhood. Being in nature has been shown to decrease stress and boost creativity, but use your best judgment and follow local recommendations for being outside and maintaining physical distance.

Tip for Adult Guides: Which grade band should I choose?

The K-2 lessons are designed for an adult to sit alongside the student as a guide through the included slideshow, with some prompts for independent work. If the student struggles with reading, even if they are above second grade, you might want to choose the K-2 slides.

The 3-5 lesson plan and slides are designed as a more independent experience. If the student is able to read and work independently, you might want to select 3-5 even if they are younger.

The 6-8 slides are quite similar to those of 3-5, but have more content and text, more advanced vocabulary, and more challenging questions. If the student is "into" birds or really likes to read, you could always try out the 6-8 version, even with younger students.

BACKGROUND

Crows, such as the American Crow that is found throughout most of the United States and Canada, are all part of the family Corvidae. Corvidae is a family of perching birds that contains crows, ravens, rooks, jackdaws, jays, magpies, treepies, choughs, and nutcrackers. *Corvus* is the genus that contains crows and ravens. They are a widely distributed genus of about 45 species of medium-sized to large black or mostly-black birds. They are known for having a diverse diet, being intelligent, and being playful. While some people think that crows are pests, or even ominous, we hope these slides and information will give you a better understanding and appreciation of these cool birds!

In this lesson, we will explore crows, which occur in most of the world and are quite intelligent. The student will first learn about American Crows and their communities. Then we will explore the intelligence of crows - that they can learn to identify humans, solve puzzles, and even make tools to gather food.

Note: The slideshows will function best in “presentation” mode.

FAMILY QUESTS

Choose activities to try out this week as a family, or challenge students to complete them on their own.

1. Take a crow hike. How many crows did you see? Did you see any black birds that were not crows?
2. Make friends with your neighborhood crows. Buy some unsalted & in-shell peanuts, take a walk every day or find a special spot, feed the crows your peanuts, and see if you can get your neighborhood crows to recognize you.
3. Make crow puppets and have a puppet show. Make your own puppets, or try one of these options: <https://www.youtube.com/watch?v=joyia7qDAYE> or <https://iheartcraftythings.com/crow-puppet-craft.html>
4. Learn about the crows that live around the world, starting at <https://ebird.org/species/houcro1/>. What do crows have in common? And how are they different? *Note: use the arrows at the top right to scroll through the crows & look at their range map below. Pay attention that the birds you’re looking at have a scientific name that starts with Corvus.*

If men had wings and bore black feathers, few of them would be clever enough to be crows.

~Henry Ward Beecher

I WONDER

Kids are curious and often excited to pursue their own interests and questions. Listen for their questions and watch for things that tickle their brains. Encourage the student to keep track of their questions during these activities (and throughout their at-home learning experience) on an “I Wonder” board or list. Help the student figure out ways to answer some of their questions. Can they: Look up some of the answers online? Watch a video? Do an experiment? Email an expert? Encourage them to explore and learn!

KEEP IN TOUCH

- Sign up for our [special eNews](#) to get these weekly activities sent to your inbox.
- Join our [Facebook Group](#) to share what you’ve learned with our community and to get fresh ideas for engaging in science and nature.
- E-mail the K-12 Education Team: K12Lab@cornell.edu.

Exploration for Grades K-2

MATERIALS NEEDED

- Internet access with the associated [slideshow](#)
- Blank or lined paper for answering questions
- Blank paper for drawing a comic strip
- Pencil or pen
- Crayons, colored pencils, and/or markers for drawing
- Outdoor access, if possible

ADULT-GUIDED

1. Gather materials and access the [slideshow](#) (use “presentation” mode) to guide the student’s investigation.
2. On the title slide, **ASK:**
 - a. Have you ever seen this bird, a crow? How did you know it was a crow?
 - b. What do you already know about crows?
 - c. What questions do you have about crows? (Add questions to an “I Wonder” list. These questions could lead to independent research investigations later.)
3. On slide 2, **ASK:** Can you guess which type of bird has all of these abilities?
4. On slide 4, if they aren’t sure if they’ve seen a crow, follow the link and have them listen to the story about identifying crows. At the end of the story, ask if they think they’ve seen a crow before? How do they know it was a crow?
5. On slide 5, **ASK:** them to tell you or write down everything they notice about the bird in the pictures.
6. On slide 7, **ASK:** them to point to all the places they think an American Crow lives. And on slide 8, reveal that they live in all places, including places where humans live, except the rocky desert pictured.
7. On slide 12, after the video, **ASK:** Have you heard a crow call out a warning?
8. On slide 14, **ASK:** Which picture do you think is the baby crow? And on slide 15, **ASK:** What differences do you see between the two different chicks?
9. **Hands-on Activity:** slide 20. **ASK:** What is one fact that you remember? Use blank paper and pencils or markers to draw a comic strip.
10. On slide 24, **ASK:** What tool did the New Caledonia Crow use?
11. **Hands-on Activity:** slide 25. Make a crow tool by following the directions on the slide. Do some testing of the tool and answer the questions on the slide.

INDEPENDENT EXPLORATION

Depending on their age and ability, consider asking the student to create stories, drawings, or videos inspired by the following prompts:

- Pick a crow that is not found in the United States, learn more about it, and identify ways it is different and similar to an American Crow. You can pick one from slide 9 or use the link found in the Quests to find a crow of interest.

- Write, tell, or draw a story about crows that includes some of the extraordinary characteristics of crows.
- What are some tools humans use that make it easier to eat, drink, or move?
- Create a diorama of a good crow habitat.

BOOKS FOR FURTHER EXPLORATION

- *Crow Not Crow* by Jane Yolen and Adam Stemple
- *The Crow's Tale* by Naomi Howarth
- *As The Crow Flies* by Sheila Keenan

*This is not an exhaustive list and your local or school library may have additional books about crows.

WRAP-UP & SHARE

Chat about what the student learned during this lesson. Here are some questions to **ASK**:

1. Would you want to be a crow's neighbor? Why or why not?
2. How are a crow's family and communities the same as and different from human families and communities?
3. What was your favorite part of this lesson, and why?

Encourage the student to write down and investigate any questions they have.

Exploration for Grades 3-5

MATERIALS NEEDED

- Internet access with the associated [slideshow](#)
- Blank or lined paper for answering questions
- Blank paper for drawing a comic strip
- Pencil or pen
- Crayons, colored pencils, and/or markers for drawing
- Outdoor access, if possible

ADULT-GUIDED

1. Before you begin the show, have a conversation with the student about crows.

ASK:

- Have you ever seen a crow? How did you know it was a crow?
 - What do you already know about crows?
 - What questions do you have about crows? (Add questions to an “I Wonder” list. These questions could lead to independent research investigations later.)
2. Encourage the student to explore the videos and websites within the [slideshow](#) (use “presentation” mode). There are also two activities in the slide show that you can help them prepare for in advance: drawing a comic strip and making a crow tool. You can do this by making sure they have the materials needed, and if possible, outdoor access. The slideshow will take approximately 20 minutes to complete, plus extra time for hands-on activities (timing will vary according to the interest level of the student). The slideshow provides support for the student to:
 - Learn the general characteristics of crows.
 - Explore crow communities and draw a comic strip.
 - Learn about the intelligence of crows.
 - Go outside and develop their own crow tool.

INDEPENDENT EXPLORATION

Give the student the materials they need and access to the [slideshow](#) to guide them (use “presentation” mode). Have the student write about the questions presented within the show and complete the activities suggested in the slides.

Depending on your needs and the student’s interest, you might also suggest one or more of the following assignments for them to complete independently.

- Pick a crow that is not found in the US, research it, and write a research paper on how it is different and similar to an American Crow.
- Write a creative story about crows that includes some of the extraordinary characteristics of crows that you learned.
- Research an American Crow diet and create a food web based upon the American Crow - don’t forget the predators that prey upon Crows!

- Design and then build a prototype of a new tool or build a puzzle that you could teach a crow to use/solve.
- Write a persuasive essay about the one aspect of the crow's intelligence that you would want to have if you were your favorite bird (other than a crow). Think about where your favorite bird lives, what type of food it eats, what are its predators, etc.
- Read one of these books or find other books in your school or local library about crows.
 - *Crow Call* by Lois Lowry (fiction)
 - *Crows! Strange & Wonderful* by Laurence Pringle (non-fiction)

WRAP-UP & SHARE

1. Ask the student to share what they learned about crows. Here are some questions to **ASK**:
 - What is the main idea of the activity? What details from the activity support the main idea?
 - What makes it possible for a crow to live in lots of different places?
 - Would you want to be a crow's neighbor? Why or why not? (*They learned that crows eat pests, scatter seeds, warn others about danger, & other birds can use their nests. They also learned that crows gather in large roosts & flocks and can be messy & noisy.*)
 - How are a crow's family and social groups the same as and different from human families and communities?
 - The slideshow shared three things that indicate that crows are smart: they can recognize humans, they can solve puzzles, and they can make tools. Which one of these "smarts" would you want if you were a bird and why?
 - What was your favorite part of this lesson, and why?
2. Finally, chat about what the student learned and encourage them to investigate any questions they might have. For example:
 - What is one thing you learned today that surprised you?
 - Do you think crows are smart? Why or why not?
 - What questions do you have, and how might you explore them? (Add questions to the "I Wonder" list and encourage the student to explore some of them independently.)

Exploration for Grades 6-8

MATERIALS NEEDED

- Internet access with the associated [slideshow](#)
- Blank or lined paper for answering questions
- Blank paper for drawing a comic strip
- Pencil or pen
- Crayons, colored pencils, and/or markers for drawing
- Outdoor access, if possible

ADULT-GUIDED

1. Before you begin the show, have a conversation with the student about crows.

ASK:

- Have you ever seen a crow? How did you know it was a crow?
 - What do you already know about crows?
 - Do you think crows live all over the world? Why or why not?
 - Do you think crows are smart? Why or why not?
 - What questions do you have about crows? (Add questions to an “I Wonder” list. These questions could lead to independent research investigations later.)
2. Encourage the student to explore the videos and websites within the [slideshow](#) (use “presentation” mode). There are also two activities within the show that you can help them prepare for in advance: drawing a comic strip and creating a crow tool. You can do this by making sure they have the materials needed. The slideshow will take approximately 25 minutes to complete, plus extra time for hands-on activities (timing will vary according to the interest level of the student). The slideshow provides support for the student to:
 - Know how to identify a crow from other black birds.
 - Understand that they are a generalist bird that lives in lots of different places.
 - Learn about the families and communities of crows.
 - Discover why crows are smart birds.

INDEPENDENT EXPLORATION

Ensure the student has the materials they need, and access to the [slideshow](#) to guide them. Have the student write about the questions presented within the slideshow and complete the activities.

Depending on your needs and the student’s interest, you might also suggest one or more of the following assignments for them to complete independently.

- Read this article about the evolution of the New Caledonia Crow’s beak <https://www.allaboutbirds.org/news/unique-beak-evolved-with-tool-use-in-new-caledonian-crow/>

- Pick a crow that is not found in the US, research it, and write a research paper on how it is different and similar to an American Crow.
- Write a creative story about crows that includes some of the extraordinary characteristics of crows that you learned.
- Design and then build a prototype of a new tool or build a puzzle that you could teach a crow to use/solve.
- Design your own experiment that would help you test or understand crows' intelligence. Think of a question that you want to find out the answer to and that you can test. Use what you learned in the slideshow, conduct your own additional research, and then design an experiment to test. If you conduct your experiment, share your results.
- Write a research paper about the differences in precocial and altricial hatchlings.
- Read this book or find other books in your school or local library about crows: *Crow Smarts: Inside the Brain of the World's Brightest Bird* by Pamela S. Turner.

WRAP-UP & SHARE

1. Ask the student to share what they learned about crows. Here are some questions to **ASK**:
 - What are the main ideas from this activity? What details from the activity support the main ideas?
 - Did you learn any new ways to tell if the black bird you see is a crow or not?
 - What makes it possible for a crow to live in lots of different places? Which specific traits help them survive in many environments?
 - Would you want to be a crow's neighbor? Why or why not? (*They learned that crows eat pests, scatter seeds, warn others about danger, & other birds can use their nests. They also learned that crows gather in large roosts & flocks and can be messy & noisy.*)
 - How are a crow's family and social groups the same as and different from human families and communities?
 - The slideshow shared three things that make crows smart: they can recognize humans, they can solve puzzles, and they can make tools. Which one of these smarts would you want if you were a bird and why?
 - What was your favorite part of this lesson, and why?
2. Finally, chat about what the student learned and encourage them to investigate any questions they might have. For example, you might wonder:
 - What is one thing you learned today that surprised you?
 - Do you think crows are smart? Why or why not?
 - What questions do you have, and how might you explore them? (Add questions to the "I Wonder" list and encourage the student to explore some of them independently.)

Activity 12 Learning Standards: Crows are Cool!

Please note that these identified standards are based on the student completing the slideshow and answering questions from the adult-guided document. However, learning standards from the “Independent Exploration” section are not included. If a student completes any of the “Independent Explorations,” additional standards may apply.

KINDERGARTEN

NEXT GENERATION SCIENCE STANDARDS

- [K-LS1-1](#): Use observations to describe patterns of what plants and animals (including humans) need to survive.
- [K-ESS3-1](#): Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.
- [K-2-ETS1-1](#): Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- [K-2-ETS1-2](#): Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

COMMON CORE MATH STANDARDS

- [CCSS.MATH.CONTENT.K.G.B.5](#): Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.K.1](#): With prompting and support, ask and answer questions about key details in a text.
- [CCSS.ELA-LITERACY.RI.K.2](#): With prompting and support, identify the main topic and retell key details of a text.
- [CCSS.ELA-LITERACY.RI.K.3](#): With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- [CCSS.ELA-LITERACY.W.K.1](#): Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is...).
- [CCSS.ELA-LITERACY.SL.K.2](#): Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
- [CCSS.ELA-LITERACY.SL.K.4](#): Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
- [CCSS.ELA-LITERACY.SL.K.6](#): Speak audibly and express thoughts, feelings, and ideas clearly.

FIRST GRADE

NEXT GENERATION SCIENCE STANDARDS

- [1-LS1-2](#): Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
- [1-LS3-1](#): Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

- [K-2-ETS1-1](#): Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- [K-2-ETS1-2](#): Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.1.1](#): Ask and answer questions about key details in a text.
- [CCSS.ELA-LITERACY.RI.1.2](#): Identify the main topic and retell key details of a text.
- [CCSS.ELA-LITERACY.W.1.3](#): Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.
- [CCSS.ELA-LITERACY.W.1.5](#): With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.
- [CCSS.ELA-LITERACY.W.1.8](#): With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- [CCSS.ELA-LITERACY.SL.1.2](#): Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
- [CCSS.ELA-LITERACY.SL.1.3](#): Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
- [CCSS.ELA-LITERACY.SL.1.4](#): Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.

SECOND GRADE

NEXT GENERATION SCIENCE STANDARDS

- [2-LS4-1](#): Make observations of plants and animals to compare the diversity of life in different habitats.
- [2-PS1-2](#): Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
- [K-2-ETS1-1](#): Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- [K-2-ETS1-2](#): Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.2.1](#): Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- [CCSS.ELA-LITERACY.W.2.3](#): Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.
- [CCSS.ELA-LITERACY.W.2.8](#): Recall information from experiences or gather information from provided sources to answer a question.
- [CCSS.ELA-LITERACY.SL.2.2](#): Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

- [CCSS.ELA-LITERACY.SL.2.3](#): Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
- [CCSS.ELA-LITERACY.SL.2.6](#): Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- [CCSS.ELA-LITERACY.SL.2.6](#): Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- [CCSS.ELA-LITERACY.L.2.1](#): Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- [CCSS.ELA-LITERACY.L.2.4](#): Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.
- [CCSS.ELA-LITERACY.L.2.6](#): Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.

THIRD GRADE

NEXT GENERATION SCIENCE STANDARDS

- [3-LS1-1](#): Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- [3-LS3-2](#): Use evidence to support the explanation that traits can be influenced by the environment.
- [3-LS4-2](#): Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.
- [3-LS2-1](#): Construct an argument that some animals form groups that help members survive.
- [3-LS4-3](#): Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- [3-5-ETS1-3](#): Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.3.1](#): Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- [CCSS.ELA-LITERACY.RI.3.3](#): Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
- [CCSS.ELA-LITERACY.RI.3.4](#): Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
- [CCSS.ELA-LITERACY.RI.3.7](#): Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

- [CCSS.ELA-LITERACY.RF.3.3](#): Know and apply grade-level phonics and word analysis skills in decoding words.
- [CCSS.ELA-LITERACY.W.3.3](#): Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- [CCSS.ELA-LITERACY.SL.3.2](#): Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- [CCSS.ELA-LITERACY.SL.3.4](#): Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
- [CCSS.ELA-LITERACY.SL.3.6](#): Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- [CCSS.ELA-LITERACY.L.3.1](#): Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- [CCSS.ELA-LITERACY.L.3.3](#): Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- [CCSS.ELA-LITERACY.L.3.4](#): Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- [CCSS.ELA-LITERACY.L.3.5](#): Demonstrate understanding of figurative language, word relationships and nuances in word meanings.
- [CCSS.ELA-LITERACY.L.3.6](#): Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.

FOURTH GRADE

NEXT GENERATION SCIENCE STANDARDS

- [4-LS1-1](#): Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- [3-5-ETS1-3](#): Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.4.1](#): Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- [CCSS.ELA-LITERACY.RI.4.3](#): Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
- [CCSS.ELA-LITERACY.RI.4.4](#): Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
- [CCSS.ELA-LITERACY.RF.4.3](#): Know and apply grade-level phonics and word analysis skills in decoding words.

- [CCSS.ELA-LITERACY.RF.4.4](#): Read with sufficient accuracy and fluency to support comprehension.
- [CCSS.ELA-LITERACY.W.4.8](#): Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.
- [CCSS.ELA-LITERACY.W.4.9](#): Draw evidence from literary or informational texts to support analysis, reflection, and research.
- [CCSS.ELA-LITERACY.SL.4.3](#): Identify the reasons and evidence a speaker provides to support particular points.
- [CCSS.ELA-LITERACY.SL.4.4](#): Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- [CCSS.ELA-LITERACY.L.4.1](#): Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- [CCSS.ELA-LITERACY.L.4.3](#): Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- [CCSS.ELA-LITERACY.L.4.4](#): Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.
- [CCSS.ELA-LITERACY.L.4.5](#): Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- [CCSS.ELA-LITERACY.L.4.6](#): Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic

FIFTH GRADE

NEXT GENERATION SCIENCE STANDARDS

- [5-LS2-1](#): Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.
- [3-5-ETS1-3](#): Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.5.1](#): Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- [CCSS.ELA-LITERACY.RI.5.3](#): Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
- [CCSS.ELA-LITERACY.RI.5.4](#): Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
- [CCSS.ELA-LITERACY.RF.5.3](#): Know and apply grade-level phonics and word analysis skills in decoding words.
- [CCSS.ELA-LITERACY.RF.5.4](#): Read with sufficient accuracy and fluency to support comprehension.

- [CCSS.ELA-LITERACY.W.5.3](#): Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- [CCSS.ELA-LITERACY.W.5.9](#): Draw evidence from literary or informational texts to support analysis, reflection, and research.
- [CCSS.ELA-LITERACY.L.5.1](#): Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- [CCSS.ELA-LITERACY.L.5.2](#): Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- [CCSS.ELA-LITERACY.L.5.4](#): Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.
- [CCSS.ELA-LITERACY.L.5.5](#): Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- [CCSS.ELA-LITERACY.L.5.6](#): Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships

SIXTH GRADE

NEXT GENERATION SCIENCE STANDARDS

- [MS-LS4-4](#): Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.
- [MS-LS1-5](#): Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
- [MS-ETS1-4](#): Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.6.7](#): Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
- [CCSS.ELA-LITERACY.W.6.3](#): Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
- [CCSS.ELA-LITERACY.W.6.9](#): Draw evidence from literary or informational texts to support analysis, reflection, and research.
- [CCSS.ELA-LITERACY.SL.6.2](#): Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
- [CCSS.ELA-LITERACY.L.6.4](#): Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.
- [CCSS.ELA-LITERACY.L.6.5](#): Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

SEVENTH GRADE

NEXT GENERATION SCIENCE STANDARDS

- [MS-LS4-4](#): Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.
- [MS-LS1-5](#): Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
- [MS-ETS1-4](#): Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.7.4](#): Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.
- [CCSS.ELA-LITERACY.W.7.3](#): Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
- [CCSS.ELA-LITERACY.W.7.9](#): Draw evidence from literary or informational texts to support analysis, reflection, and research.
- [CCSS.ELA-LITERACY.SL.7.2](#): Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.
- [CCSS.ELA-LITERACY.L.7.4](#): Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.
- [CCSS.ELA-LITERACY.L.7.5](#): Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

EIGHTH GRADE

NEXT GENERATION SCIENCE STANDARDS

- [MS-LS1-5](#): Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
- [MS-ETS1-4](#): Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- [CCSS.ELA-LITERACY.RI.8.4](#): Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
- [CCSS.ELA-LITERACY.W.8.3](#): Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
- [CCSS.ELA-LITERACY.W.8.9](#): Draw evidence from literary or informational texts to support analysis, reflection, and research.
- [CCSS.ELA-LITERACY.L.8.4](#): Determine or clarify the meaning of unknown and

multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.