

The Book Planter

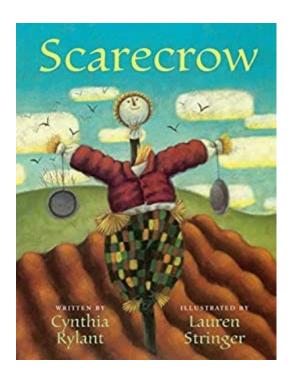


Ag in the Classroom

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August 2020: Scarecrow
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This scarecrow may be made from simple materials, but his story is an interesting tale. From an old cotton shirt, to the burlap on his face, to the twine that ties him together, this character is made of various collected textiles from a farmer's life. The scarecrow watches as the seasons change, and how crops like beans, sunflowers, and pumpkins grow throughout their lifecycle. While he may seem ordinary at first, there are many important agricultural processes intertwined throughout this scarecrow's experience on a farm.



Fun Facts

- The first cotton textile mill was created around 1815 by Michael Schenck in Lincoln County, North Carolina.¹
- Today, North Carolina has the largest textile mill industry in the nation.²
- There is an abandoned theme park known as the "Land of Oz" located in Beech Mountain, North Carolina. When it was open, the theme park featured many aspects of the movie, *The Wizard of Oz*, within the rides and attractions it once had while it was operating. One of the main characters of the movie is a Scarecrow!³
- Did you know that scarecrows have been around for over 3,000 years? The first use of scarecrows dates back to ancient Egypt, where they were placed along the Nile River to scare away quails.⁴
- Today, scarecrows are used more for decoration during the Fall, rather than being used for pest control. More modern technology has been developed for farmers to scare away birds and other animals, such as nets or noise machines.⁴

Before Reading Questions

Before reading *Scarecrow* with your class, use the following questions to give students some background knowledge and encourage them to make predictions.

- Looking at the front cover, what is the scarecrow *wearing?* What do you think his clothes say about his character in the story?
- What is a scarecrow used for? Why do you think farmers use scarecrows?
- After reading the short description on the back cover, what do you think this tells us about what will happen in the story?
- Do you have any questions about what you have observed before reading?
- What are your inferences about the story before we have read it, based on the front and back covers?

During Reading Questions

While reading *Scarecrow*, use these questions to help students explore the information found within the book.

- On the two-page spread depicting the scarecrow next to the farmer in overalls, what do you notice about what the characters are wearing? What is similar and what is different about the kinds of clothing they are wearing?
- The book shows pictures of different crops such as sunflowers, beans, and pumpkins growing during different seasons. Why do you think this is? What does this mean about the life cycles of plants?
- The scarecrow sees many different seasons change throughout the year. What is your favorite season and why?
- If you had to create a scarecrow, what materials, fabrics, and resources would you use? Explain your answer.

After Reading Questions

- Go back and re-read the description of the story on the back cover. Now that you
 have read the story, what do you think the author meant when she said "there's
 more to a scarecrow's life than meets the eye?" Why do you think this is?
- The author did not give the scarecrow a name throughout the story. Why do you think this is? What was the author's purpose of leaving the scarecrow nameless?
- The scarecrow watches over the crops in all seasons, no matter how harsh the weather is. Why do you think he still enjoys being a scarecrow, even though the environment around him is harsh and constantly changing?
- Would you like to live the life of a scarecrow? Why or why not?
- Would you like to live the life of a farmer? Why or why not?

Textiles Investigation

1. After reading *Scarecrow* and completing the discussion questions, engage in a conversation with your students about clothing and what it's made out of. Where

- do these clothes and materials come from? Ask the students if they name some materials that make clothing.
- 2. Once you have asked these introductory questions, introduce the <u>"Make a Scarecrow" video</u> (see **Links** section for full link). Ask your students to pay close attention to the materials, both clothing and non-clothing, that are being used in the video to create a scarecrow similar to the scarecrow mentioned in the book. Encourage students to write down their observations or questions as they watch.
- 3. Next, pass out the <u>Natural Fibers</u>, <u>Synthetic Fibers Handout</u> (see **Links** section). Read through it with your students and encourage them to highlight or take notes on the important facts and definitions found within the handout. Ask them to think about the video they saw and ask them what fibers and textiles may have been used in the creation of the scarecrow. This can be done on a whiteboard by creating two columns labeled "Natural Fibers" and "Synthetic Fibers" and labeling the corresponding clothing items or materials students observed within the video.
- 4. After reading this information, bring out materials that are used to create a scarecrow and are similar to those used in the video. These materials include: a pair of pantyhose, a pair of denim jeans, twine, and a flannel button-up shirt (A denim shirt was used in the video, but the flannel shirt will be interesting to use since it will have different fibers than the denim pants).
- 5. Once the materials have been shown to the class, pass out the <u>Clothing</u> <u>Investigations Activity Sheet</u> (see **Links** section). Next, disply the tags for each scarecrow item on the board, showing the item's textile information. Students will then fill out the investigation sheet. If time allows, students may even inspect their individual clothing items as well.
- 6. Once students have had time to fill out their worksheets, ask students to think more about the sources of these clothes: Where were most of the clothes made? Do they think the fibers were produced in the country where the article of clothing was made? Discuss the connection between agriculture and clothes, and how materials used to make clothes come from agricultural commodities, such as cotton and wool.
- 7. Finally, talk about how textiles as an industry are an important part of their everyday lives, because it makes up the clothes they wear. To tie this lesson back to the book, discuss how the scarecrow was made from different pieces of fabric to create something useful for farmers. Talk about how textiles, and in this case clothing, can be used for more than what we wear.

Spinning Wool Activity⁵

1. This activity can be used after the Textiles Investigation, or it could be paired with the book by itself.

- 2. Once you have read Scarecrow with your students, and engaged with them in discussing the reading questions, begin a discussion surrounding the idea of using fibers to create textiles, and textiles to create a finished product. Just as the scarecrow was created from various textiles, those individual textiles are all created from natural and/or synthetic fibers.
- 3. Ask students if they know where wool comes from. (*Answers may vary, but the correct answer is traditionally we get wool from animals—sheep, alpacas, goats, rabbits, etc. Wool can be synthetic and made from man-made materials.*) Ask, "Is wool a natural fiber or a synthetic fiber?" Explain that natural fibers come from either plants or animals, and synthetic fibers are man-made.
- 4. Discuss how fibers are spun to make thread that will be made into cloth.
- 5. Spin wool with your students. You may purchase a Wool Spinning Kit (see Links) or source your own carded wool and wool hooks. The hooks provided with the kit are chain-link fence ties; a piece of wire cut to 8 inches with the top inch bent down into a candy cane shape will also work. Provide each student with a wool hook and a piece of carded wool, approximately ¼ inch wide and 14 inches long. Guide students using the instructions given below. This Wool Spinning Tutorial video (see Links) is helpful to see it being done.
- 6. Below are the steps to spinning wool. If you are right-handed, place the hook in your right hand (left if you are left-handed).
 - A. Hold the wool near the top in your other hand and fold over the top ½ inch to make a loop in the top of the wool. Place the loop around the hook end of the wire.
 - B. Begin spinning the wool hook in one direction. As the wool spins, and gets tight against your fingers, move your fingers down the wool, letting out more unspun fiber—this is called drafting. You are spinning! If you get bumps in your yarn, you are spinning too tight and should draft out more wool.
 - C. When you have spun the length of yarn, don't let go or the yarn will unspin. You are now ready to ply your yarn. Plying is the twisting together of two single strands of spun wool. The easiest way to ply your yarn is to have someone place their finger in the center of your spun yarn (like you would place your finger on a ribbon for a package), bring the two ends together so the two strands are side by side and then have the person with their finger in the middle let go and allow the wool strands to twist together.
 - D. The double strand that you now have is plied yarn. It is strong and won't unspin. Tie it around your wrist and make a bracelet, or use it for a bookmark.

7. Next, students will dye their strands of wool.⁶ There are two different methods, one involving Kool-Aid, and the other involving a natural dyeing method.

A. Kool-Aid Dye Method

- a. In a glass bowl, combine 1 package of Kool-Aid, 1 cup (240 mL) of water, and 1 tablespoon (15 mL) of vinegar. Stir until the Kool-Aid completely dissolves.
- b. Completely immerse an arm's length of wool into the Kool-Aid mixture.
- c. Place the bowl of wool and Kool-Aid mixture into a microwave. Heat on high for two minutes.
- d. Remove the bowl from the microwave and let it cool. BE CAREFUL, IT'S HOT!
- e. After the mixture has cooled, squeeze the liquid out of the wool and into the bowl. If the liquid is fairly clear, rinse the wool in cold water. If the liquid is not clear, heat the bowl of wool and Kool-Aid mixture for one additional minute before cooling and rinsing. This process will result in dyed wool that you can allow to dry and use in other projects.

B. Natural Dye Method

- a. Select and chop the plant material. For a list of plants and their resulting colors, see the table below. About one pound (480 g) of plant material will produce a satisfying color on about a half pound (240 g) of wool.
- b. Cover the chopped plant material with water. Simmer for about an hour to allow the natural pigments to color the water.
- c. Strain and discard the plant material (cheesecloth works well), and add pre-dampened wool to the liquid. You may have to add more water at this stage so that the wool is completely immersed.
- d. Simmer for another hour or until the wool is the desired color.
- e. Rinse in cold water.

Plant and/or Plant Part	Color
Coreopsis bloom (fresh or dried)	Bright golden yellow
Onion skins	Rich reddish brown
Alfalfa leaves and stems	Soft baby yellow
Poplar leaves	Tan
Teasel	Khaki
Canada thistle leaves, stems, flowers	Grey
Sunflowers	Greenish gold
Cattail	Beige
Sagebrush	Golden tan
Red cabbage	Blue

Note: A mordant is a chemical that opens up the fiber so it bonds more easily with the dye, and produces a more vivid color. You may choose to add a mordant to the dye bath or use it on the wool before dyeing. However, most mordants (copper, tin, chrome, iron) are quite toxic. Alum or vinegar, both available at most grocery stores, can be used safely. Mordant is derived from the Italian word "mordere" which means "to bite." The colors will bite and be more intense if a mordant is used. In order to experiment with plants and color, give

your students a piece of white poster board and instruct them to scrape a leaf or flower across the card. The resulting stain is a good indication of the color the plant will produce as a dye.

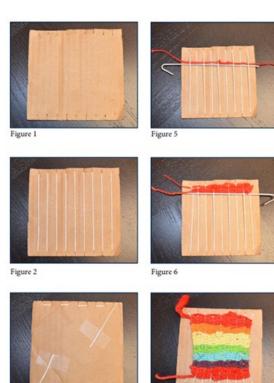
- 8. Lastly, students will finish the activity by weaving the wool.⁶
 - A. Cut a rectangle piece of cardboard to your desired size. The example pictured uses a 5" x 5" (12.7 cm x 12.7 cm) piece. This will become your loom.
 - B. Use scissors to cut $\frac{1}{4}$ " (0.635 cm) slits $\frac{1}{2}$ " (1.27 cm) apart along two opposite ends of the cardboard (Figure 1 in the picture).

C. To create the warp on the loom, tape one end of the string to the back of the cardboard. Then string it through the first notch, around the front of the

cardboard piece from the top to bottom and into the opposite notch. Continue until all of the notches have been filled. Tape the second end of the string to the back of the cardboard (Figures 2 and 3).

D. Tie several strands of the spun and plied wool from activity one together to make one long piece.

- E. Use the spinning hook from the wool spinning kit as your shed stick. A shed stick is a tool used to create a temporary separation between the warp yarns. Feed the shed stick over and under the warp with every second string being raised. (Figure 4).
- F. Weave the yarn across the loom following the pattern of the shed stick. This yarn is known as the weft. To weave the second row, feed the shed stick in the opposite over under pattern from the previous row and follow the pattern with the yarn. Use the







shed stick to gently push each row together. Repeat this process until the weaving is finished (see Figures 5 and 6).

Figure 3

- G. When the weaving is finished, insert a twig or dowel above and below the woven piece. Detach the strings from the cardboard notches and tie the loose ends to the twigs. An extra piece of yarn can be tied to the top twig for hanging (see Figures 7 and 8).
- H. Once you have finished weaving the dyed wool with your class, engage in a discussion with them about how they feel about the process from fiber to textile. What did they learn? How do they view textiles and textile manufacturing differently? What are some ways we can relate the creation of the woven wool to the creation of a scarecrow? What does this say about the power of fibers, both natural and synthetic?

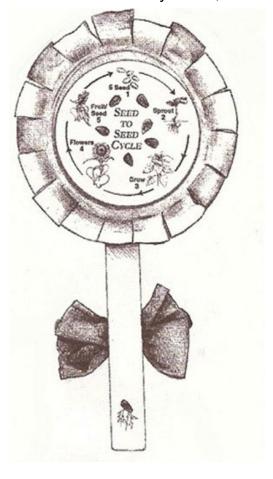
Sunflower Life Cycles Activity⁷

In the book *Scarecrow*, students read about how the main character's job, as a scarecrow, was to protect crops as they grow throughout the seasons. This activity encourages students to explore the life cycle of one of those crops: sunflowers.

1. Begin the activity by showing students the <u>Sunflower Growth Stage</u> pictures (see **Links**). Show the students an actual sunflower head with seeds inside if you can,

but if not, use pictures from books or the internet. Go through each step of the cycle. Place the pictures on the board with tape or a magnet and leave them for the next activity.

- 2. Next, introduce the activity. Students will be creating paper plate sunflowers to learn about the sunflower life cycle.
 - a. Distribute the activity supplies.
 - i. Small white paper plates, one per student
 - ii. Large craft sticks, or popsicle sticks, one per student
 - iii. Sunflower seeds, 6 per student
 - iv. Green paper, cut into 1" pieces
 - v. Crayons
 - vi. Glue or tape
 - b. Glue the <u>Seed to Seed Cycle</u> handout (see **Links**) in the middle of the paper plate and set aside.
 - Ask students what the first step in the Seed Cycle is (seed). Have students glue one sunflower seed about 1" up the craft



- stick, as if they were planting a seed in the ground and the stick is the stem that would grow from the seed.
- d. Ask students what the next step in the cycle is (*sprout*). Talk with them about what is needed for a seed to germinate. Have students draw roots on their craft stick below the seed with the brown crayon.
- e. Ask students what the next step is (*grow*). As the stems and leaves begin to grow, have students cut out leaves from the green paper and glue them to the stick above the seed.
- f. Ask students what the next step is (*flower*). Have them color the white paper plate around the Seed to Seed Cycle. Use scissors to snip the plate edges to the center circle to create flower petals.
- g. The next step is fruit. Students should glue sunflower seeds to the center of the Seed to Seed Cycle.
- h. Tape or glue the paper plate flower to the craft stick. (See image below.)
- 3. Once the students have completed their sunflower craft, ask them to consider how they could relate this activity and what they learned to *Scarecrow*. How do seasons affect flower growth? What do sunflowers need to grow? How might scarecrows protect sunflowers?

Links

- "Make a Scarecrow" Video <u>https://www.youtube.com/watch?v=L-DZ-YhG27k</u>
- Natural Fibers, Synthetic Fibers Handout https://naitc-

api.usu.edu/media/uploads/2016/07/25/natural synthetic fibers handout.pdf

- Clothing Investigations Activity Sheet
 https://naitc-api.usu.edu/media/uploads/2020/02/04/Clothing Investigations activity sheet.pd
 f
- Wool Spinning Kit https://agclassroomstore.com/wool-spinning/
- Wool Spinning Tutorial video <u>https://www.youtube.com/watch?v=rPUORvO-GZE&feature=emb_rel_end</u>
- Seed to Cycle Handout
 https://naitc-api.usu.edu/media/uploads/2015/04/13/Seed_to_Seed_Cycle.pdf
 Cycle.pdf
- Sunflower Growth Stage Pictures <u>https://naitc-</u>

api.usu.edu/media/uploads/2015/04/13/Sunflower_Growth_Stages.pdf

 Wool Spinning Tutorial Video https://www.youtube.com/watch?v=rPUORvO-GZE&feature=emb_rel_end

Sources

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- 2. https://www.nccommerce.com/business/key-industries-north-carolina/textiles
- 3. https://roadtrippers.com/magazine/autumn-at-land-of-oz/
- https://davesgarden.com/guides/articles/view/1768
- 5. https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=486&author_state=0&search_term_lp=text iles
- 6. https://www.agclassroom.org/teacher/matrix/resources.cfm?rid=402&search_term_cr_lp=wool
- 7. https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=175&author_state=0&search_term_lp=sunflower%20life%20cycle

K-5 Subject Areas

Reading, Writing, Speaking and Listening, Science, and Social Studies

Common Core/Essential Standards

Reading

- RL.K.1 With prompting and support, ask and answer questions about key details in a text.
- RL.K.2 With prompting and support, retell familiar stories, including key details
- RL.K.3 With prompting and support, identify characters, settings, and major events in a story
- RL.K.6 With prompting and support, define the role of the author and illustrator in telling the story.
- RL.K.7 With prompting and support, describe how the words and illustrations work together to tell a story.
- RL.1.1 Ask and answer questions about key details in a text.
- RL.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.
- RL.1.3 Describe characters, settings, and major events in a story, using key details.
- **RL.2.1** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- **RL.2.2** Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
- RL.2.3 Describe how characters in a story respond to major events and challenges.
- **RL.2.7** Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- **RL.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- **RL.3.7** Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story.
- **RL.4.1** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- RL.4.2 Determine a theme of a story, drama, or poem from details in the text; summarize the text.
- RL.4.3 Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the
 text
- RL.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing
 inferences from the text
- RL.5.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
- **RL.5.3** Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text.
- RI.K.1 With prompting and support, ask and answer questions about key details in a text.
- RI.K.2 With prompting and support, identify the main topic and retell key details of a text.
- **RI.K.3** With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.

- RI.K.5 Identify the front cover, back cover, and title page of a book.
- **RI.1.1** Ask and answer questions about key details in a text.
- RI.1.2 Identify the main topic and retell key details of a text.
- RI.1.7 Use the illustrations and details in a text to describe its key ideas.
- **RL.2.1** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- RL.2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
- RL.2.3 Describe how characters in a story respond to major events and challenges.
- **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.
- RI.2.5 Know and use various text features to locate key facts or information in a text efficiently.
- RI.2.6 Identify the author's main purpose of a text, including what the author wants to answer, explain, or describe.
- RI.2.7 Explain how specific images contribute to and clarify a text.
- **RI.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea
- **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.
- RI.3.6 Distinguish their own point of view from that of the author of a text.
- RI.3.7 Use information gained from illustrations and the words in a text to demonstrate understanding of the text
- **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.
- RI.4.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.
- **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.
- **RI.4.6** Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
- **RI.4.7** Interpret information presented visually, orally, or quantitatively and explain how the information contributes to an understanding of the text in which it appears.
- RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- RI.5.2 Determine two or more main ideas of a text and explain how they are supported by key details;
 summarize the text.
- **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.
- **RI.5.7** Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question or to solve a problem efficiently.

Writing

- **W.K.3** Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and with guidance and support, provide a reaction to what happened.
- **W.K.6** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question
- **W.1.6** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

- W.2.6 Recall information from experiences or gather information from provided sources to answer a
 question.
- **W.3.6** Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
- **W.4.6** 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.
- **W.5.6** Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work and provide a list of sources.

Speaking and Listening

- **SL.K.1** Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions. b. Continue a conversation through multiple exchanges.
- **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.
- **SL.K.3** Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- SL.K.4 Speak audibly and express thoughts, feelings, and ideas clearly.
- SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.
- **SL.1.1** Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions. b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges. c. Ask questions to clear up any confusion about the topics and texts under discussion.
- SL.1.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
- **SL.1.4** Produce complete sentences to describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
- **SL.1.5** Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
- SL.2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions. b. Build on others' talk in conversations by linking their comments to the remarks of others. c. Ask for clarification and further explanation as needed about the topics and texts under discussion.
- **SL.2.2** Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- **SL.2.4** Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent and complete sentences.
- SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions. c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion
- **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.
- **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 in complete sentences at an understandable pace.
- SL.4.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
 a. Come to discussions prepared, having read or studied required material; explicitly draw on that

preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

- **SL.4.2** Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- **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; adjust speech as appropriate to formal and informal discourse.
- SL.5.1 Engage effectively in a range of collaborative discussions (one-onone, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
- **SL.5.2** Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- SL.5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate
 facts and relevant, descriptive details to support main ideas or themes; adapt speech to a variety of contexts
 and tasks.

Science

- K.P.2 Understand how objects are described based on their physical properties and how they are used.
- 1.L.1 Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive.
- 1.L.2 Summarize the needs of living organisms for energy and growth.
- 3.L.2 Understand how plants survive in their environments.
- 5.L.2 Understand the interdependence of plants and animals with their ecosystem

Social Studies

- K.G.2 Understand the interaction between humans and the environment.
- 1.G.2 Understand how humans and the environment interact within the local community.
- 2.G.2 Understand the effects of humans interacting with their environment.
- **5.G.1** Understand how human activity has and continues to shape the United States.