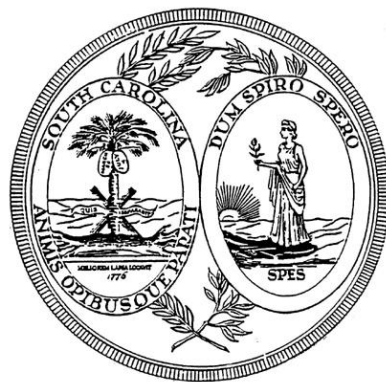


South Carolina Academic Standards and Performance Indicators for Science 2014



Instructional Unit Resource

3rd Grade

South Carolina Academic Standards and Performance Indicators for Science 2014

Third Grade Science Instructional Unit Resource

As support for implementing the *South Carolina Academic Standards and Performance Indicators for Science 2014*, the standards for Third Grade have been grouped into possible units. In the Overview of Units below, the titles for those possible units are listed in columns. Refer to the Overview document to note these unit titles and how Standards, Conceptual Understandings, Performance Indicators, Science and Engineering Practices, and Crosscutting Concepts align. Following the Overview of Units, an Instructional Unit document is provided that delivers guidance and possible resources in teaching our new *South Carolina Academic Standards and Performance Indicators for Science 2014*. The purpose of this document is to provide guidance as to how all the standards in this grade may be grouped into units and how those units might look. Since this document is merely guidance, districts should implement the standards in a manner that addresses the district curriculum and the needs of students. This document is a living document and instructional leaders from around the state will continuously update and expand these resource documents. These documents will be released throughout the 2016-2017 school year with the intentionality of staying ahead of instruction. Teachers should also note that links to the Standards document, A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas, the SEP Support Document, and the Support Document 2.0 are embedded throughout the Instructional Unit format for reference.

Acknowledgments

Jean Baptiste Massieu, famous deaf educator, made a statement that is now considered a French proverb. “Gratitude is the memory of the heart. Indeed, appreciation comes when you feel grateful from the depths of your heart. The head keeps an account of all the benefits you received and gave. But the heart records the feelings of appreciation, humility, and generosity that one feels when someone showers you with kindness.” It is with sincere appreciation that we humbly acknowledge the dedication, hard work and generosity of time provided by teachers and instructional leaders across the state that have made and are continuing to make the Instructional Unit Resources possible.

Grade 3 Overview of Units

Unit 1	Unit 2		Unit 3		Unit 4	
PHYSICAL SCIENCE: PROPERTIES AND CHANGES IN MATTER	PHYSICAL SCIENCE: ENERGY TRANSFER--ELECTRICITY AND MAGNETISM		EARTH SCIENCE: EARTH'S MATERIALS AND PROCESSES		LIFE SCIENCE: ENVIRONMENTS AND HABITATS	
Standard	Standard		Standard		Standard	
3.P.2	3.P.3		3.E.4		3.L.5	
Conceptual Understanding	Conceptual Understanding		Conceptual Understanding		Conceptual Understanding	
3.P.2A	3.P.3A	3.P.3B	3.E.4A	3.E.4B	3.L.5A	3.L.5B
Performance Indicators	Performance Indicators		Performance Indicators		Performance Indicators	
3.P.2A.1 3.P.2A.2 3.P.2A.3 3.P.2A.4 3.P.2A.5	3.P.3A.1 3.P.3A.2 3.P.3A.3	3.P.3B.1 3.P.3B.2	3.E.4A.1 3.E.4A.2 3.E.4A.3	3.E.4B.1 3.E.4B.2 3.E.4B.3 3.E.4B.4	3.L.5A.1 3.L.5A.2	3.L.5B.1 3.L.5B.2 3.L.5B.3
*Science and Engineering Practices	*Science and Engineering Practices		*Science and Engineering Practices		*Science and Engineering Practices	
S.1.A.3 S.1.A.4 S.1.A.6 S.1.A.8 S.1.B.1	S.1.A.2 S.1.A.3 S.1.A.4 S.1.A.8		S.1.A.2 S.1.A.4 S.1.A.8	S.1.A.1 S.1.A.2 S.1.A.3 S.1.A.8 S.1.B.1	S.1.A.2 S.1.A.4	S.1.A.2 S.1.A.7 S.1.A.8
*Crosscutting Concepts	*Crosscutting Concepts		*Crosscutting Concepts		*Crosscutting Concepts	
1, 2, 3, 5, 6, 7	2, 4, 5, 6		1, 2, 6		1, 2, 4, 5, 6	

* Teachers have the discretion to enhance the selected SEP's and CCCs.

Unit Title
Life Science: Environments and Habitats
Standard
http://ed.sc.gov/scdoe/assets/file/agency/ccr/Standards-Learning/documents/South_Carolina_Academic_Standards_and_Performance_Indicators_for_Science_2014.pdf
3.L.5 The student will demonstrate an understanding of how the characteristics and changes in environments and habitats affect the diversity of organisms.

Conceptual Understanding					
3.L.5A The characteristics of an environment (including physical characteristics, temperature, availability of resources, or the kinds and numbers of organisms present) influence the diversity of organisms that live there. Organisms can survive only in environments where their basic needs are met. All organisms need energy to live and grow. This energy is obtained from food. The role an organism serves in an ecosystem can be described by the way in which it gets its energy.					
New Academic Vocabulary					
Some students may need extra support with the following academic vocabulary in order to understand what they are being asked to understand and do. Teaching these terms in an instructional context is recommended rather than teaching the words in isolation. A great time to deliver explicit instruction for the terms would be during the modeling process. Ultimately, the student should be able to use the academic vocabulary in conversation with peers and teachers. These terms are pulled from the essential knowledge portion of the Support Doc 2.0 (http://ed.sc.gov/instruction/standards-learning/science/support-documents-and-resources/) and further inquiry into the terms can be found there.					
Adaptation	Camouflage	Carnivore	Consumer	Decomposer	Energy
Environment	Food Chain	Food Web	Habitat	Herbivore	Hibernation
Locomotion	Mimicry	Omnivore	Organism	Predator	Prey
Producer					

Performance Indicators

Text highlighted below in **orange** and **italicized/underlined** shows connections to SEP's.

3.L.5A.1 **Analyze and interpret data** about the characteristics of environments (including salt and fresh water, deserts, grasslands, forests, rain forests, and polar lands) to describe how the environment supports a variety of organisms.

3.L.5A.2 **Develop and use models** (such as a food web), to classify organisms as producers, consumers, and decomposers and to describe how organisms obtain energy.

*Science and Engineering Practices

Support for the guidance, overviews of grade level progressions, and explicit details of each SEP can found in the Science and Engineering Support Doc (http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete_2014SEPsGuide_SupportDoc2_0.pdf). It is important that teachers realize that the nine science and engineering practices are not intended to be used in isolation. Even if a performance indicator for a given standard only lists one of the practices as a performance expectation, scientists and engineers do not use these practices in isolation, but rather as part of an overall sequence of practice. When educators design the learning for their students, it is important that they see how a given performance expectation fits into the broader context of the other science and engineering practices. This will allow teachers to provide comprehensive, authentic learning experiences through which students will develop and demonstrate a deep understanding of scientific concepts.

S.1.A.2 **Develop, use, and refine models** to (1) understand or represent phenomena, processes, and relationships; (2) test devices or solutions; or (3) communicate ideas to others.

S.1A.4 **Analyze and interpret data** from observations, measurements, or investigations to understand patterns and meanings.

*Cross Cutting Concepts (<http://www.nap.edu/read/13165/chapter/8>)

The link above provides support from the Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (2012). The text in **blue** and **italicized/underlined** below provides a brief explanation of how the specific content ties to the CCC's.

1. **Patterns:** The National Research Council (2012) states that “observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them” (p. 84). *Every plant and animal has a pattern of growth and development called a life cycle. As seed plants and animals go through their life cycles, they grow within a habitat for which their needs can be met.*

4. **Systems and systems models:** The National Research Council (2012) states that “Defining the system under study—specifying its boundaries and making explicit a model of that system—provides tools for understanding and testing ideas that are applicable throughout science and engineering” (p. 84). *Models of ecosystems provide an understanding of how habitats coexist on Earth.*

5. **Energy and matter:** The National Research Council states “Tracking fluxes of energy and matter into, out of, and within systems helps one understand the systems’ possibilities and limitations” (p. 84). *The stages of growth are part of the life cycles in a variety of animal types. These stages are not the same for all animals.*

6. **Structure and function:** The National Research Council (2012) states that “the way in which an object or living thing is shaped and its substructure determine many of its properties and functions” (p. 84). *Mature plants have the same structures (for example roots, stems, and leaves) as seedlings; but in addition, they develop flowers or cones which produce seeds.*

**Teachers have the discretion to enhance the selected SEP’s and CCC’s.*

Prior Knowledge

- 2.L.5B.1 Relationship between plants and animals

Subsequent Knowledge

- N/A

Possible Instructional Strategies/Lessons

Strategies and lessons that will enable students to master the standard and/or indicator.

- 3.L.5A.1
 - Where do you live? What do you do?: Students explore habitats and learn how environments change due to natural events and human activity. This resource can be found at <http://rpsec.usca.edu/workshops/SISSI/SISSI3-5AikenJune2015/lessons/G3Hab-WhereDoYouLiveSISSI-lesson.pdf>.
 - Comparing Habitats: Students compare the organisms that live in the desert, rainforest, and freshwater habitats. This resource can be found at <https://educators.brainpop.com/lesson-plan/comparing-rainforest-desert-and-freshwater-habitats-lesson-plan/>.
 - Animals Around Us: Students discover how various habitats are unique and identify animals living within forests, deserts, wetlands, and grasslands. This resource can be found at <http://www.discoveryeducation.com/teachers/free-lesson-plans/animals-around-us.cfm>.
 - The Needs of Living Things: Students engage in learning how habitats allow animals and plants to survive but also how organisms can change their environments. This resource can be found at http://illinois.pbslearningmedia.org/resource/tdc02.sci.life.colt.lp_stayalive/the-needs-of-living-things/.

- 3.L.5A.2

- The Foods Chain Game: Utilizing this interactive game, students will identify the roles of plants and animals in food chains. This resource can be found at <https://educators.brainpop.com/lesson-plan/plants-animals-lesson-plan-food-chain-game/?bp-jr-topic=food-chain>.
- Food Chains Webquest: Students will conduct research on producers, consumers, and decomposers. This resource can be found at <http://zunal.com/webquest.php>.
- Food Chain Game: Students will use interactive software to create food chains and see them come to life and watch the food chain in action. This resource can be found at <http://www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.htm>.

Resources

- Study Jams by Scholastic: This is an interactive site with quizzes, songs, and slideshows for over 200 subjects. This resource can be found at http://studyjams.scholastic.com/studyjams/jams/science/index.htm?topic_id=rml.
- Zoo Minutes: This is a link that allows teachers to use short video clips from Riverbanks Zoo for lesson hooks or to facilitate class discussions in order to support curriculum objectives. This resource can be found at http://media.knowitall.org/sites/default/files/ZooMinutes_TeachersGuide.pdf.
- Food Chain Video Clip: This clip can be found at the following link http://www.dailymotion.com/video/xmhwxx_food-chain-and-food-web-lesson-science-lesson-science-for-first-grade-free-online-educational-games_videogames.
- This is a link that teachers can use to connect to resources about food chains this resource can be found at http://www.lisd.org/technology/itswebs/Elem/curr/3rdgrade/3rd_grade.htm.
- This game allows students to interact with food chains. This resource can be found at https://ecokids.ca/swf-files/gamesPage/chain_reaction.swf.
- This website is a collection of science resources that will reinforce the above standards: http://coolsciencelab.com/third_grade.htm.

Sample Formative Assessment Tasks/Questions

Additional sample formative assessment tasks/questions for grade bands are located at the end of each of the SEP Support Doc

(http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete_2014SEPsGuide_SupportDoc2_0.pdf)

- 3.L.5A.1
 - Analyzing the data table provided, students match each photograph to the correct environment. Students will then describe how each environment supports the matched photos. This resource can be found at <http://techiclucas.weebly.com/habitats-and-environments.html>.
 - Animal Adaptations Science Vocabulary Bingo Game Free Printable can be found at <https://www.teacherspayteachers.com/Product/Animal-Adaptations-Science-Vocabulary-Bingo-Game-Printable-125688>.
 - Numbered Heads Together Strategy: Numbered Heads Together (Kagan, 1994) encourages student accountability in learning material through the use of a cooperative learning strategy. The teacher places students in groups and gives each student a number (from one to the maximum number in each group). Then the teachers poses a question and ask students to "put their heads together" to come up with their answer. As the teacher calls a specific number, the student with that number understands that they are to respond as spokesperson for the group. This cooperative learning strategy ensures that each member knows the answer to problems or questions asked by the teacher.
- 3.L.5A.2
 - Producer, Consumer, Decomposer sort: This site contains multiple activities that can be used to assess student knowledge on producers, consumers, and decomposers as well as the food chain. <http://www.atlanta.k12.ga.us/cms/lib/GA01000924/Centricity/Domain/5224/Life%20Science%20Activities%20Consumers%20and%20Producers.pdf>
 - List four parts in a specific food chain (i.e. plant, insect, mouse, owl). Have students describe what would happen if one of the parts increased or decreased in population. How would it affect each part? <http://animalinteractions.weebly.com/module-2-food-chainweb.html>
 - Create a complete food chain.

- \$2 Summary: Students will write a summary of learning from the lesson, describing how an environment supports an organism's life cycle with each word worth 10 cent. Scaffold this learning by giving students specific words related to the learning that they must include in their summaries. This can be increased to any amount of money.
http://www.gcasd.org/Downloads/Summarizing_Strategies.pdf
- Designer Animal Project: This project can be adapted for third grade. Students create an animal with adaptations to coexist in the environments of one of the four planets. <http://lessonplanspage.com/scienceanimaladaptations58.htm/>
- Energy moves through an ecosystem: Students will summarize how energy moves through an ecosystem. Summary should contain specific plant and animal examples. This can be completed by having students use the following formative assessment strategy called CSI. Students think of big ideas and important themes in what they read, viewed/saw, heard, or learned. This is an activity to help students process/synthesize and organize their ideas to gain a deeper understanding.
C-Choose a color that you think best represents the essence of that idea.
S-Create a symbol that you think best represents the essence of that idea.
I-Sketch an image that you think best captures the essence of that idea.

Unit Title

Life Science: Environments and Habitats

Standard

http://ed.sc.gov/scdoe/assets/file/agency/ccr/Standards-Learning/documents/South_Carolina_Academic_Standards_and_Performance_Indicators_for_Science_2014.pdf

3.L.5 The student will demonstrate an understanding of how the characteristics and changes in environments and habitats affect the diversity of organisms.

Conceptual Understanding

3.L.5.B When the environment or habitat changes, some plants and animals survive and reproduce, some move to new locations, and some die. Fossils can be used to infer characteristics of environments from long ago.

New Academic Vocabulary

Some students may need extra support with the following academic vocabulary in order to understand what they are being asked to understand and do. Teaching these terms in an instructional context is recommended rather than teaching the words in isolation. A great time to deliver explicit instruction for the terms would be during the

modeling process. Ultimately, the student should be able to use the academic vocabulary in conversation with peers and teachers. These terms are pulled from the essential knowledge portion of the Support Doc 2.0 (<http://ed.sc.gov/instruction/standards-learning/science/support-documents-and-resources/>) and further inquiry into the terms can be found there.

Drought	Earthquakes	Energy	Environment	Extinction	Fires
Floods	Fossils	Habitat	Hibernate	Landslides	Migrate
Organism	Pollution	Photosynthesis	Volcanic Eruptions		

Performance Indicators

Text highlighted below in **orange** and **italicized/underlined** shows connections to SEP's.

3.L.5B.1 Obtain and communicate information to explain how changes in habitats (such as those that occur naturally or those caused by organisms) can be beneficial or harmful to the organisms that live there.

3.L.5B.2 Develop and use models to explain how changes in a habitat cause plants and animals to respond in different ways (such as hibernating, migrating, responding to light, death, or extinction).

3.L.5B.3 Construct scientific arguments using evidence from fossils of plants and animals that lived long ago to infer the characteristics of early environments.

*Science and Engineering Practices

Support for the guidance, overviews of grade level progressions, and explicit details of each SEP can found in the Science and Engineering Support Doc (http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete_2014SEPsGuide_SupportDoc2_0.pdf). It is important that teachers realize that the nine science and engineering practices are not intended to be used in isolation. Even if a performance indicator for a given standard only lists one of the practices as a performance expectation, scientists and engineers do not use these practices in isolation, but rather as part of an overall sequence of practice. When educators design the learning for their students, it is important that they see how a given performance expectation fits into the broader context of the other science and engineering practices. This will allow teachers to provide comprehensive, authentic learning experiences through which students will develop and demonstrate a deep understanding of scientific concepts.

3.S.1A.2 Develop, use, and refine models to (1) understand or represent phenomena, processes, and relationships; (2) test devices or solutions; or (3) communicate ideas to others.

3.S.1A.7 Construct scientific arguments to support claims, explanations, or designs using evidence from observations, data, or informational texts.

3.S.1A.8 Obtain and evaluate informational texts, observations, data collected, or discussions to (1) generate and answer questions; (2) understand phenomena; (3) develop models; or (4) support explanations, claims, or designs. Communicate observations and explanations using the conventions and expectations of oral and written language.

***Cross Cutting Concepts** (<http://www.nap.edu/read/13165/chapter/8>)

The link above provides support from the Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (2012). The text in **blue** and **italicized/underlined** below provides a brief explanation of how the specific content ties to the CCC's.

1. **Patterns:** The National Research Council (2012) states that “observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them” (p. 84). *Environmental changes influence an organism's pattern of behavior.*
2. **Cause and effect: Mechanism and explanation:** The National Research Council (2012) states that “events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigating and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts” (p. 84). *When the environment or habitat changes, some plants and animals survive and reproduce, some move to new locations, and some die.*
4. **Systems and systems models:** The National Research Council (2012) states that “Defining the system under study—specifying its boundaries and making explicit a model of that system—provides tools for understanding and testing ideas that are applicable throughout science and engineering” (p. 84). *Changes in a habitat cause plants and animals to respond in different ways (such as hibernating, migrating, responding to light, death, or extinction).*
5. **Energy and matter: Flows, cycles, and conservation** The National Research Council (2012) states “Tracking fluxes of energy and matter into, out of, and within systems helps one understand the systems’ possibilities and limitations” (p. 84). *All organisms need energy to survive. Energy gives the organism its ability to do the things it needs to do to survive. In most habitats, the sun provides the initial energy for the plants, which is passed from plants (producers) to animals (consumers) when animals eat the plants.*
6. **Structure and function:** The National Research Council (2012) states that “the way in which an object or living thing is shaped and its substructure determine many of its properties and functions ” (p. 84). *Fossils can give information about what the environment was like in the location where the fossil was found.*

**Teachers have the discretion to enhance the selected SEP's and CCC's*

Prior Knowledge

- 2.L.5B.2 Characteristics of animals for survival in distinct environments

- 2.L.5B.3 Animal response to environment (eating behaviors, hibernation, migration)

Subsequent Knowledge

- 4.L.5B.1 Animals respond to signals from the environment
- 4.L.5B.3 Adaptations of animals
- 5.L.4A.1, 5.L.4A2 Ecosystems
- 8.E.6B.2 Extinction of a species

Possible Instructional Strategies/Lessons

Strategies and lessons that will enable students to master the standard and/or indicator.

- 3.L.5B.1
 - How habitats change?: Students learn how all parts of an ecosystem are connected; and when one part changes, it affects the entire system. This resource can be found at <http://mpalalive.org/classroom/lesson/how-habitats-change>.
 - Habitats of the World: Students learn how plants and animals adapt to the conditions of their environments. This resource can be found at <http://school.discoveryeducation.com/lessonplans/programs/habitats/>.
 - Effects of Environmental Change: Students investigate what might happen to organisms if environmental changes occur. This resource can be found at http://scetv.pbslearningmedia.org/resource/tdc02.sci.life.oate.lp_changeenviron/effects-of-environmental-change/.
- 3.L.5B.2
 - Adaptations Activity: Students investigate how adaptations help plants and animals survive in habitats. This resource can be found at <http://curriculum.scaquarium.org/wp-content/uploads/2016/09/3-5-Adaptation-Activity-Write-Up.pdf>.
 - Animal Adaptations: This is an interactive site that allows students to navigate and discover how plants and animals respond to their environments. This resource can be found at: <http://interactivsites.weebly.com/animal-adaptations.html>
 - Zoo Designer: Students design 5 enclosures for the local zoo. This resource can be found at <http://mrnussbaum.com/zoo/>.

- 3.L.5B.3
 - How Bones Become Fossils: Students will sequence the steps of a bone turning into a fossil. This resource can be found at <https://educators.brainpop.com/lesson-plan/fossilization-sequencing-games-how-bones-become-fossils/?bp-jr-topic=fossils> .
 - Fun with Fossils: Students will examine how fossils are formed and provide clues from early environments of long ago. This resource can be found at http://illinois.pbslearningmedia.org/resource/ess05.sci.ess.earthsys.lp_funfossils/fun-with-fossils/ .

Resources

- Study Jams by Scholastic: This is an interactive site with quizzes, songs and slideshows from over 200 subjects. This resource can be found at http://studyjams.scholastic.com/studyjams/jams/science/index.htm?topic_id=rml.
- Zoo Minutes: This is a link that allows teachers to use short video clips from Riverbanks Zoo for lesson hooks or to facilitate class discussions in order to support curriculum objectives. This resource can be found at http://media.knowitall.org/sites/default/files/ZooMinutes_TeachersGuide.pdf .
- Global Climate Change: This is a student's guide to global climate change. This resource can be found at <https://www3.epa.gov/climatechange/kids/impacts/effects/ecosystems.html>.

Sample Formative Assessment Tasks/Questions

Additional sample formative assessment tasks/questions for grade bands are located at the end of each of the SEP Support Doc.

(http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete_2014SEPsGuide_SupportDoc2_0.pdf)

- 3.L.5B.1
 - Hurricane Matthew affected the South Carolina coast in many ways. Explain in a paragraph how this natural event can be beneficial and harmful to the organisms that live there.
 - Students can explain how organisms are impacted by environmental changes by using a consensus placemat. On a consensus placemat, a question is posed at the top of the paper (How are organisms impacted by environmental changes?). Students respond to the questions in their quadrant on the outside. Next students are given time to discuss as a cooperative learning group to come to a consensus in the middle of the paper. Further explanation of this assessment can be found at <http://www.sevenminutescientist.com/2015/09/14/best-practices-the-placemat-consensus-technique-improved-using-technology/>.
 - Snow Globe: Students will think of the big idea of the concept/vocabulary that was taught, and then they will create a nonlinguistic

representation/image/sketch in a snow globe (My Snow Globe Story). Students can discuss the “why” behind their images orally or through a written response (King, 2011).

- 3.L.5B.2

- Scenario based Assessment: Students are given a scenario and asked to give evidence from the lesson to support their claims. This assessment can be found at <http://mpalalive.org/classroom/lesson/how-habitats-change#assessment-and-or-discussion>.

- 3.L.5B.3

- Fossils and Dinosaurs: Students will gain a general understanding about how fossils are formed and what information can be learned from fossils. This assessment may be found at <http://sciencenetlinks.com/lessons/fossils-1-fossils-and-dinosaurs/>.
- Uncovering the Facts: Students will be able to recognize the kind of information that can be accumulated by studying dinosaur fossils. This resource may be found at <http://sciencenetlinks.com/lessons/fossils-2-uncovering-the-facts/>.
- Numbered Heads Together Strategy: Numbered Heads Together (Kagan, 1994) encourages student accountability in learning material through the use of a cooperative learning strategy. The teacher places students in groups and gives each student a number (from one to the maximum number in each group). Then the teachers poses a question and ask students to "put their heads together" to come up with their answer. As the teacher calls a specific number, the student with that number understands that they are to respond as spokesperson for the group. This cooperative learning strategy ensures that each member knows the answer to problems or questions asked by the teacher.
- Fossil Hot Potato: Students can use the formative strategy of Hot Potato to construct scientific arguments about how fossils of plants and animals help to infer the characteristics of early environments. Hot Potato is great for review of concepts or key information learned/questions asked about the lesson. Begin play by giving the Hot Potato to someone in the circle. This person must then pass of the Hot Potato (bean bag or ball) as quickly as possible either in an orderly manner around the circle or by throwing it across the circle to another player until the music stops. The person holding the Hot Potato answers a question or gives an idea about the learning.

References

- 7 minute scientist (2015). Best Practices: The “Placemat Consensus” Technique Improved, Using Technology. Retrieved November 18, 2016, from <http://www.sevenminutescientist.com/2015/09/14/best-practices-the-placemat-consensus-technique-improved-using-technology/>
- Animal Adaptations. (n.d.). Retrieved November 18, 2016, from <http://interactivesites.weebly.com/animal-adaptations.html>
- Animal Habitats of the World -Lesson Plan for Grades 3-5. (n.d.). Retrieved October 20, 2016, from <http://school.discoveryeducation.com/lessonplans/programs/habitats/>
- Brainpop Educators. (2016). Comparing Habitats Lesson Plan: Rainforest, Desert, or Freshwater? Retrieved November 20, 2016, from <https://educators.brainpop.com/lesson-plan/comparing-rainforest-desert-and-freshwater-habitats-lesson-plan/>
- Brainpop Educators. (2016). How bones become fossils Retrieved November 20, 2016, from <https://educators.brainpop.com/lesson-plan/comparing-rainforest-desert-and-freshwater-habitats-lesson-plan/>
- Brainpop Educators. (2016). The food chain game. Retrieved October 20, 2016, from <https://educators.brainpop.com/lesson-plan/comparing-rainforest-desert-and-freshwater-habitats-lesson-plan/>
- Fossils 1: Fossils and Dinosaurs. (n.d.). Retrieved November 18, 2016, from <http://sciencenetlinks.com/lessons/fossils-1-fossils-and-dinosaurs/>
- Fossils 2: Uncovering the Facts. (n.d.). Retrieved November 18, 2016, from <http://sciencenetlinks.com/lessons/fossils-2-uncovering-the-facts/>
- Guidli Kids. (2011). Retrieved October 10, 2016, from http://www.dailymotion.com/video/xmhwxx_food-chain-and-food-web-lesson-science-lesson-science-for-first-grade-free-online-educational-games_videogames
- Kagan, S. (1994). Cooperative learning. San Juan Capistrano, CA: Kagan Cooperative Learning
- Kid's Corner - Food Chain Game. (n.d.). Retrieved November 18, 2016, from <http://www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.htm>
- King, V. (2011, December 25). Snowglobe writing prompt [Web log post]. Retrieved October 10, 2016 from <http://msnoles.blogspot.com/2011/12/snowglobe-writing-prompt.html>
- Habitats and Environments. (n.d.). Retrieved November 18, 2016, from <http://techiclucas.weebly.com/habitats-and-environments.html>
- Lemov, D. (2010). Teach like a champion 2.0. San Francisco, CA: Jossey-Bass.
- 3rd grade Instructional Unit Resource SCDE | Office of Standards and Learning

Lesson Plan Library. (n.d.). Retrieved October 18, 2016, from <http://www.discoveryeducation.com/teachers/free-lesson-plans/animals-around-us.cfm>

Lesson 4: How Habitats Change. (n.d.). Retrieved November 18, 2016, from <http://mpalalive.org/classroom/lesson/how-habitats-change>

Module 2: Food Chain/Web. (n.d.). Retrieved November 18, 2016, from <http://animalinteractions.weebly.com/module-2-food-chainweb.html>

Mr. Nolde's Third Grade Page!! (n.d.). Retrieved November 18, 2016, from http://coolsciencelab.com/third_grade.htm

National Research Council. A Framework for k-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas. Washington, DC: The National Academies Press, 2012. doi: 10.17226/13165.

PBS Learning Media. (2016). Effects of environmental change.. Retrieved October 10, 2016 from http://scetv.pbslearningmedia.org/resource/tdc02.sci.life.oate.lp_changeenviron/effects-of-environmental-change/

PBS Learning Media. (2016). Fun fossils.. Retrieved October 10, 2016 from http://illinois.pbslearningmedia.org/resource/ess05.sci.ess.earthsys.lp_funfossils/fun-with-fossils/

PBS Learning Media. (2016). The needs of living things. Retrieved October 10, 2016 from http://illinois.pbslearningmedia.org/resource/tdc02.sci.life.colt.lp_stayalive/the-needs-of-living-things/

Play a game and learn! (n.d.). Retrieved November 18, 2016, from <https://ecokids.ca/play-a-game-and-learn>

Plants, Animals, and Ecosystems. (n.d.). Retrieved November 18, 2016, from <https://www3.epa.gov/climatechange/kids/impacts/effects/ecosystems.html>

Producers Omnivores Carnivores Herbivores Pdf - Free Ebooks Download. (n.d.). Retrieved November 20, 2016, from <http://ebookbrowse.in/pdf/title/producers-omnivores-carnivores-herbivores.html>

Ritchhart, R., Church, M., & Morrison, K. (2011). Making thinking visible: How to promote engagement, understanding, and independence for all learners. San Francisco, CA: Jossey-Bass.

Ruth Patrick Science Education Center. (2015) Lesson: Where do you live? What do you do? [PDF document]. Retrieved October 10, 2016, from <http://rpsec.usca.edu/workshops/SISSI/SISSI3-5AikenJune2015/lessons/G3Hab-WhereDoYouLiveSISSI-lesson.pdf>

South Carolina Aquarium Online Curriculum. (2005). Retrieved November 18, 2016, from <http://curriculum.scaquarium.org/3-5-activities/>

South Carolina Department of Education. (2014). South Carolina Academic Standards and Performance Indicators for Science 2014. [PDF document]. Retrieved July 13, 2016, from http://ed.sc.gov/scdoe/assets/file/agency/ccr/Standards-Learning/documents/South_Carolina_Academic_Standards_and_Performance_Indicators_for_Science_2014.pdf

StudyJams. (n.d.). Retrieved October 10, 2016, from <http://studyjams.scholastic.com/studyjams/jams/science/index.htm>

Success, T. 4. (2011). Animal Adaptations Science Vocabulary Bingo Game Printable. Retrieved November 18, 2016, from <https://www.teacherspayteachers.com/Product/Animal-Adaptations-Science-Vocabulary-Bingo-Game-Printable-125688>

Third Grade Activities. (n.d.). Retrieved November 18, 2016, from http://www.lisd.org/technology/itswebs/elem/curr/3rdgrade/3rd_grade.htm

View a plan. (n.d.). Retrieved November 20, 2016, from <http://lessonplanspage.com/scienceanimaladaptations58-htm/>

Wren, Megan (2016) Webquest: Food Chains Retrieved October 14, 2016, from <http://zunal.com/webquest.php?w=329775>

Zoo Designer. (2015).Nussbaum Education Network, LLC. Retrieved November 18, 2016, from <http://mrnussbaum.com/zoo/>

Zoo Minutes: Retrieved October 31, 2016 from http://media.knowitall.org/sites/default/files/ZooMinutes_TeachersGuide.pdf