

Blandy Experimental Farm's Snake Savvy Activity using DGIF's
A Guide to the Snakes and Lizards of Virginia
 Virginia Standards of Learning Correlations

2nd grade

<p>Science (2018)</p>	<p>2.1 The student will demonstrate an understanding of scientific and engineering practices by</p> <ol style="list-style-type: none"> a) asking questions and defining problems <ul style="list-style-type: none"> • ask questions that can be investigated • make predictions based on observations and prior experiences • identify a simple problem that can be solved through the development of a new tool or improved object b) planning and carrying out investigations <ul style="list-style-type: none"> • with guidance, plan and conduct simple investigations to produce data • use appropriate tools to measure length, weight, and temperature of common objects using U.S. Customary units • measure time intervals using proper tools c) interpreting, analyzing, and evaluating data <ul style="list-style-type: none"> • organize and represent data in pictographs and bar graphs • read and interpret data represented in pictographs and bar graphs d) constructing and critiquing conclusions and explanations <ul style="list-style-type: none"> • make simple conclusions based on data or observations • distinguish between opinion and evidence • recognize unusual or unexpected results e) developing and using models <ul style="list-style-type: none"> • use models to demonstrate simple phenomena and natural processes f) obtaining, evaluating, and communicating information <ul style="list-style-type: none"> - communicate observations and data using simple graphs, drawings, numbers, speech, and/or writing <p>2.5 The student will investigate and understand that living things are part of a system. Key ideas include</p> <ol style="list-style-type: none"> a) plants and animals are interdependent with their living and nonliving surroundings; b) an animal's habitat provides all of its basic needs; and c) habitats change over time due to many influences.
<p>Science (2010)</p>	<p>2.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which</p> <ol style="list-style-type: none"> a) observations and predictions are made and questions are formed; b) observations are differentiated from personal interpretation; c) observations are repeated to ensure accuracy; d) two or more characteristics or properties are used to classify items; e) length, volume, mass, and temperature are measured in metric units and standard English units using the proper tools; f) time is measured using the proper tools; g) conditions that influence a change are identified and inferences are made; h) data are collected and recorded, and bar graphs are constructed using numbered axes; i) data are analyzed, and unexpected or unusual quantitative data are recognized; j) conclusions are drawn;



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	<p>k) observations and data are communicated; l) simple physical models are designed and constructed to clarify explanations and show relationships; and m) current applications are used to reinforce science concepts.</p> <p>2.5 The student will investigate and understand that living things are part of a system. Key concepts include</p> <p>a) living organisms are interdependent with their living and nonliving surroundings; b) an animal's habitat includes adequate food, water, shelter or cover, and space; c) habitats change over time due to many influences; and</p>
Math	<p>2.8 The student will estimate and measure</p> <p>a) length to the nearest inch; and</p> <p>2.15 The student will</p> <p>a) collect, organize, and represent data in pictographs and bar graphs; and b) read and interpret data represented in pictographs and bar graphs.</p>
English	<p>2.4 The student will read and demonstrate comprehension of nonfiction texts.</p> <p>a) Preview the selection using text features including table of contents, headings, pictures, captions, and maps. b) Make and confirm predictions. c) Use prior and background knowledge as context for new learning. e) Ask and answer questions using the text as support.</p> <p>2.12 The student will conduct research by using available resources to gather information and answer questions to complete a research product.</p> <p>d) Find information from provided sources. e) Organize information in writing or a visual display.</p>

3rd Grade

Science (2018)	<p>3.1 The student will demonstrate an understanding of scientific and engineering practices by</p> <p>a) asking questions and defining problems</p> <ul style="list-style-type: none"> • ask questions that can be investigated and predict reasonable outcomes • ask questions about what would happen if a variable is changed • define a simple design problem that can be solved through the development of an object, tool, process, or system <p>b) planning and carrying out investigations</p> <ul style="list-style-type: none"> • with guidance, plan and conduct investigations • use appropriate methods and/or tools for collecting data • estimate length, mass, volume, and temperature • measure length, mass, volume, and temperature in metric and U.S. Customary units using proper tools • measure elapsed time • use tools and/or materials to design and/or build a device that solves a specific problem <p>c) interpreting, analyzing, and evaluating data</p>
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	<ul style="list-style-type: none"> • organize and represent data in pictographs or bar graphs • read, interpret, and analyze data represented in pictographs and bar graphs • analyze data from tests of an object or tool to determine if it works as intended <p>d) constructing and critiquing conclusions and explanations</p> <ul style="list-style-type: none"> • use evidence (measurements, observations, patterns) to construct or support an explanation • generate and/or compare multiple solutions to a problem • describe how scientific ideas apply to design solutions <p>e) developing and using models</p> <ul style="list-style-type: none"> • use models to demonstrate simple phenomena and natural processes • develop a model (e.g., diagram or simple physical prototype) to illustrate a proposed object, tool, or process <p>f) obtaining, evaluating, and communicating information</p> <ul style="list-style-type: none"> • read and comprehend reading-level appropriate texts and/or other reliable media • communicate scientific information, design ideas, and/or solutions with others <p>3.4 The student will investigate and understand that adaptations allow organisms to satisfy life needs and respond to the environment. Key ideas include</p> <p>b) adaptations may be behavioral or physical; and</p>
<p>Science (2010)</p>	<p>3.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which</p> <ul style="list-style-type: none"> a) observations are made and are repeated to ensure accuracy; b) predictions are formulated using a variety of sources of information; c) objects with similar characteristics or properties are classified into at least two sets and two subsets; d) natural events are sequenced chronologically; e) length, volume, mass, and temperature are estimated and measured in metric and standard English units using proper tools and techniques; f) time is measured to the nearest minute using proper tools and techniques; g) questions are developed to formulate hypotheses; h) data are gathered, charted, graphed, and analyzed; i) unexpected or unusual quantitative data are recognized; j) inferences are made and conclusions are drawn; k) data are communicated; l) models are designed and built; and m) current applications are used to reinforce science concepts. <p>3.4 The student will investigate and understand that adaptations allow animals to satisfy life needs and respond to the environment. Key concepts include</p> <ul style="list-style-type: none"> a) behavioral adaptations; and b) physical adaptations.
<p>Math</p>	<p>3.7 The student will estimate and use U.S. Customary and metric units to measure</p> <ul style="list-style-type: none"> a) length to the nearest $\frac{1}{2}$ inch, inch, foot, yard, centimeter, and meter; and



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	<p>3.14 The student will investigate and describe the concept of probability as a measurement of chance and list possible outcomes for a single event.</p> <p>3.15 The student will</p> <ul style="list-style-type: none"> a) collect, organize, and represent data in pictographs or bar graphs; and b) read and interpret data represented in pictographs and bar graphs. <p>3.16 The student will identify, describe, create, and extend patterns found in objects, pictures, numbers and tables.</p>
English	<p>3.6 The student will read and demonstrate comprehension of nonfiction texts.</p> <ul style="list-style-type: none"> b) Use prior and background knowledge as context for new learning. c) Preview and use text features including table of contents, headings, pictures, captions, maps, indices, and charts. d) Ask and answer questions about what is read using the text for support. f) Summarize information found in nonfiction texts. <p>3.10 The student will demonstrate comprehension of information resources to research a topic and complete a research product.</p> <ul style="list-style-type: none"> c) Collect and organize information about the topic. d) Evaluate the relevance of the information.

4th Grade

Science (2018)	<p>4.1 The student will demonstrate an understanding of scientific and engineering practices by</p> <ul style="list-style-type: none"> a) asking questions and defining problems <ul style="list-style-type: none"> • identify scientific and non-scientific questions • develop hypotheses as cause-and-effect relations • define a simple design problem that can be solved through the development of an object, tool, process, or system b) planning and carrying out investigations <ul style="list-style-type: none"> • identify variables when planning an investigation • collaboratively plan and conduct investigations • use tools and/or materials to design and/or build a device that solves a specific problem • take metric measurements using appropriate tools • measure elapsed time c) interpreting, analyzing, and evaluating data <ul style="list-style-type: none"> • organize and represent data in bar graphs and line graphs • interpret and analyze data represented in bar graphs and line graphs • compare two different representations of the same data (e.g., a set of data displayed on a chart and a graph) • analyze data from tests of an object or tool to determine whether it works as intended d) constructing and critiquing conclusions and explanations
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	<ul style="list-style-type: none"> • use evidence (i.e., measurements, observations, patterns) to construct or support explanations and to make inferences <p>e) developing and using models</p> <ul style="list-style-type: none"> • develop and/or use models to explain natural phenomena • identify limitations of models <p>f) obtaining, evaluating, and communicating information</p> <ul style="list-style-type: none"> • read and comprehend reading-level-appropriate texts and/or other reliable media • communicate scientific information, design ideas, and/or solutions with others <p>4.3 The student will investigate and understand that organisms, including humans, interact with one another and with the nonliving components in the ecosystem. Key ideas include</p> <p>a) interrelationships exist in populations, communities, and ecosystems;</p> <p>b) food webs show the flow of energy within an ecosystem;</p> <p>c) changes in an organism's niche and habitat may occur at various stages in its life cycle; and</p> <p>d) classification can be used to identify organisms.</p> <p>4.8 The student will investigate and understand that Virginia has important natural resources. Key resources include</p> <p>b) plants and animals;</p>
<p>Science (2010)</p>	<p>4.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which</p> <p>a) distinctions are made among observations, conclusions, inferences, and predictions;</p> <p>b) objects or events are classified and arranged according to characteristics or properties;</p> <p>c) appropriate instruments are selected and used to measure length, mass, volume, and temperature in metric units;</p> <p>d) appropriate instruments are selected and used to measure elapsed time;</p> <p>e) predictions and inferences are made, and conclusions are drawn based on data from a variety of sources;</p> <p>f) independent and dependent variables are identified;</p> <p>g) constants in an experimental situation are identified;</p> <p>h) hypotheses are developed as cause and effect relationships;</p> <p>i) data are collected, recorded, analyzed, and displayed using bar and basic line graphs;</p> <p>j) numerical data that are contradictory or unusual in experimental results are recognized;</p> <p>k) data are communicated with simple graphs, pictures, written statements, and numbers;</p> <p>l) models are constructed to clarify explanations, demonstrate relationships, and solve needs; and</p> <p>m) current applications are used to reinforce science concepts.</p>



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	4.5	The student will investigate and understand how plants and animals, including humans, in an ecosystem interact with one another and with the nonliving components in the ecosystem. Key concepts include a) plant and animal adaptations; b) organization of populations, communities, and ecosystems and how they interrelate; c) flow of energy through food webs; d) habitats and niches; e) changes in an organism's niche at various stages in its life cycle; and f) influences of human activity on ecosystems.
	4.9	The student will investigate and understand important Virginia natural resources. Key concepts include b) animals and plants;
Math	4.8	The student will a) estimate and measure length and describe the result in U.S. Customary and metric units; c) given the equivalent measure of one unit, identify equivalent measures of length, weight/mass, and liquid volume between units within the U.S. Customary system; and solve practical problems that involve length, weight/mass, and liquid volume in U.S. Customary units
	4.13	The student will a) determine the likelihood of an outcome of a simple event; b) represent probability as a number between 0 and 1, inclusive; and
	4.14	The student will a) collect, organize, and represent data in bar graphs and line graphs; b) interpret data represented in bar graphs and line graphs; and compare two different representations of the same data (e.g., a set of data displayed on a chart and a bar graph, a chart and a line graph, or a pictograph and a bar graph)
English	4.6	The student will read and demonstrate comprehension of nonfiction texts. a) Use text features such as type, headings, and graphics, to predict and categorize information. d) Summarize supporting details.

6th Grade

Science (2018)	6.1	The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which a) observations are made involving fine discrimination between similar objects and organisms; b) precise and approximate measurements are recorded; c) scale models are used to estimate distance, volume, and quantity;
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	<ul style="list-style-type: none"> d) hypotheses are stated in ways that identify the independent and dependent variables; e) a method is devised to test the validity of predictions and inferences; f) one variable is manipulated over time, using many repeated trials; g) data are collected, recorded, analyzed, and reported using metric measurements and tools; h) data are analyzed and communicated through graphical representation; i) models and simulations are designed and used to illustrate and explain phenomena and systems; and j) current applications are used to reinforce science concepts. <p>6.9 The student will investigate and understand that humans impact the environment and individuals can influence public policy decisions related to energy and the environment. Key ideas include</p> <ul style="list-style-type: none"> a) natural resources are important to protect and maintain;
Math	<p>6.2 The student will</p> <ul style="list-style-type: none"> a) represent and determine equivalencies among fractions, mixed numbers, decimals, and percents; and b) compare and order positive rational numbers. <p>6.3 The student will</p> <ul style="list-style-type: none"> a) identify and represent integers; b) compare and order integers; and <p>6.12 The student will</p> <ul style="list-style-type: none"> a) represent a proportional relationship between two quantities, including those arising from practical situations; c) determine whether a proportional relationship exists between two quantities; and d) make connections between and among representations of a proportional relationship between two quantities using verbal descriptions, ratio tables, and graphs.
English	<p>6.1 The student will use effective oral communication skills in a variety of settings.</p> <ul style="list-style-type: none"> c) Participate in collaborative discussions with partners building on others' ideas. d) Ask questions to clarify the speaker's purpose and perspective. g) Analyze the effectiveness of participant interactions. i) Demonstrate the ability to collaborate with diverse teams. <p>6.4 The student will read and determine the meanings of unfamiliar words and phrases within authentic texts.</p> <ul style="list-style-type: none"> a) Identify word origins and derivations. b) Use roots, affixes, synonyms, and antonyms to expand vocabulary. c) Use context and sentence structure to determine meanings and differentiate among multiple meanings of words. f) Extend general and cross-curricular vocabulary through speaking, listening, reading, and writing. <p>6.6 The student will read and demonstrate comprehension of a variety of nonfiction texts.</p> <ul style="list-style-type: none"> a) Skim materials using text features such as type, headings, and graphics to predict and categorize information.



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- c) Summarize supporting details.
- d) Create an objective summary including main idea and supporting details.
- k) Use reading strategies to monitor comprehension throughout the reading process.

Possible if doing a research project or collaborative work

6.2. The student will create multimodal presentations that effectively communicate ideas.

- a) Use effective verbal and nonverbal communication skills to deliver multimodal presentations.
- b) Use language and vocabulary appropriate to audience, topic, and purpose.
- c) Give collaborative and individual formal and informal interactive presentations.
- d) Paraphrase and summarize key ideas of a presentation.

6.5 The student will read and demonstrate comprehension of a variety of fictional texts, literary nonfiction, and poetry.

- f) Draw conclusions and make inferences using the text for support.
- i) Compare/contrast details in literary and informational nonfiction texts.
- k) Use reading strategies to monitor comprehension throughout the reading process.

6.8 The student will self- and peer-edit writing for capitalization, punctuation, spelling, sentence structure, paragraphing, and Standard English.

- a) Use subject-verb agreement with intervening phrases and clauses.
- b) Use pronoun-antecedent agreement to include indefinite pronouns.
- c) Maintain consistent verb tense across paragraphs.
- d) Eliminate double negatives.
- e) Use quotation marks with dialogue.
- f) Choose adverbs to describe verbs, adjectives, and other adverbs.
- g) Use correct spelling for frequently used words.
- h) Use subordinating and coordinating conjunctions.

6.9 The student will find, evaluate, and select appropriate resources to create a research product.

- a) Formulate and revise questions about a research topic.
- b) Collect and organize information from multiple sources.
- c) Evaluate and analyze the validity and credibility of sources.
- d) Cite primary and secondary sources.
- e) Avoid plagiarism by using own words and follow ethical and legal guidelines for gathering and using information.
- f) Demonstrate ethical use of the Internet.



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7th Grade

Science (2018)	<p>LS.4 The student will investigate and understand how organisms can be classified. Key concepts include</p> <ul style="list-style-type: none"> c) the distinguishing characteristics of major animal phyla and plant divisions; and d) the characteristics that define a species. <p>LS.8 The student will investigate and understand interactions among populations in a biological community. Key concepts include</p> <ul style="list-style-type: none"> a) the relationships among producers, consumers, and decomposers in food webs; b) the relationship between predators and prey; c) competition and cooperation; d) symbiotic relationships; and e) niches. <p>LS.9 The student will investigate and understand how organisms adapt to biotic and abiotic factors in an ecosystem. Key concepts include</p> <ul style="list-style-type: none"> c) adaptations that enable organisms to survive within a specific ecosystem. <p>LS.10 The student will investigate and understand that ecosystems, communities, populations, and organisms are dynamic, change over time, and respond to daily, seasonal, and long-term changes in their environment. Key concepts include</p> <ul style="list-style-type: none"> a) phototropism, hibernation, and dormancy; b) factors that increase or decrease population size; and
Math	<p>7.1 The student will</p> <ul style="list-style-type: none"> a) compare and order rational numbers; <p>7.8 The student will</p> <ul style="list-style-type: none"> a) determine the theoretical and experimental probabilities of an event; and b) investigate and describe the difference between the experimental probability and theoretical probability of an event. <p>7.9 The student, given data in a practical situation, will</p> <ul style="list-style-type: none"> a) represent data in a histogram; b) make observations and inferences about data represented in a histogram; and <p>compare histograms with the same data represented in stem-and-leaf plots, line plots, and circle graphs.</p>
Possible if doing a research project or collaborative work	
English	<p>7.1 The student will participate in and contribute to conversations, group discussions, and oral presentations.</p> <ul style="list-style-type: none"> a) Use a variety of strategies to listen actively and speak using agreed upon discussion rules with awareness of verbal and nonverbal cues. b) Clearly communicate ideas and information orally in an organized and succinct manner. c) Ask probing questions to seek elaboration and clarification of ideas. d) Participate in collaborative discussions with partners building on others' ideas. e) Make statements to communicate agreement or tactful disagreement with others' ideas. f) Use language and style appropriate to audience, topic, and purpose. g) Give formal and informal presentations in a group or individually, providing evidence to support a main idea.



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- h) Work effectively and respectfully within diverse groups.
- i) Exhibit willingness to make necessary compromises to accomplish a goal.
- j) Share responsibility for collaborative work.

7.2 The student will create multimodal presentations both individually and in a group that effectively communicate ideas.

- a) Select, organize, and create content to complement and extend meaning for a selected topic.
- b) Use effective verbal and nonverbal communication skills to deliver multimodal presentations.
- c) Use language and vocabulary appropriate to audience, topic, and purpose.
- d) Paraphrase and summarize a speaker's key ideas.

7.4 The student will read and determine the meanings of unfamiliar words and phrases within authentic texts.

- a) Identify word origins and derivations.
- b) Use roots, affixes, synonyms, and antonyms to expand vocabulary.
- c) Identify and analyze the construction and impact of figurative language.
- d) Identify connotations.
- e) Use context and sentence structure to determine meanings and differentiate among multiple meanings of words.
- f) Use word-reference materials to determine meanings and etymology.
- g) Extend general and cross-curricular vocabulary through speaking, listening, reading, and writing.

7.5 The student will read and demonstrate comprehension of a variety of fictional texts, literary nonfiction, poetry, and drama.

- a) Describe the elements of narrative structure including setting, character development, plot, theme, and conflict and how they influence each other.
- b) Identify and explain the theme(s).
- c) Identify cause and effect relationships and their impact on plot.
- d) Differentiate between first and third person point-of-view.
- e) Identify elements and characteristics of a variety of genres.
- f) Compare and contrast various forms and genres of fictional text.
- g) Describe the impact of word choice, imagery, and literary devices including figurative language in an author's style.
- h) Compare/contrast details in literary and informational nonfiction texts.
- i) Make inferences and draw conclusions based on the text.
- j) Use reading strategies to monitor comprehension throughout the reading process.

7.6 The student will read and demonstrate comprehension of a variety of nonfiction texts.

- a) Skim materials using text features including type, headings, and graphics to predict and categorize information.
- b) Identify an author's organizational pattern using textual clues, such as transitional words and phrases.
- c) Make inferences and draw logical conclusions using explicit and implied textual evidence.
- d) Differentiate between fact and opinion.



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- e) Identify the source, viewpoint, and purpose of texts.
- f) Describe how word choice and language structure convey an author's viewpoint.
- g) Identify the main idea.
- h) Summarize text identifying supporting details.
- i) Create an objective summary including main idea and supporting details.
- j) Identify cause and effect relationships.
- k) Organize and synthesize information for use in written and other formats.
- l) Analyze ideas within and between selections providing textual evidence.
- m) Use reading strategies to monitor comprehension throughout the reading process.

7.8 The student will self- and peer-edit writing for capitalization, punctuation, spelling, sentence structure, paragraphing, and Standard English.

- a) Choose appropriate adjectives and adverbs to enhance writing.
- b) Use pronoun-antecedent agreement to include indefinite pronouns.
- c) Use subject-verb agreement with intervening phrases and clauses.
- d) Edit for verb tense consistency and point of view.
- e) Use quotation marks with dialogue and direct quotations.
- f) Use correct spelling for commonly used words

7.9 The student will find, evaluate, and select appropriate resources to create a research product.

- a) Formulate and revise questions about a research topic.
- b) Collect, organize, and synthesize information from multiple sources.
- c) Analyze and evaluate the validity and credibility of resources.
- d) Quote, summarize, and paraphrase information from primary and secondary sources using proper citations.
- e) Avoid plagiarism by using own words and follow ethical and legal guidelines for gathering and using information.
- f) Demonstrate ethical use of the Internet.

