

SOUTH CAROLINA ALIGNMENT FOR NIH SUPPLEMENT DOING SCIENCE: THE PROCESS OF SCIENTIFIC INQUIRY

DOING SCIENCE: THE PROCESS OF SCIENTIFIC INQUIRY		
South Carolina Science Academic Standards – Grades 6 - 8		
Lesson	Standard	Indicator
1	6-1.1 7-1.1 8-1.6	Use appropriate tools and instruments safely and accurately when conducting a controlled scientific investigation.
All lessons	6-1.2	Differentiate between observation and inference during the analysis and interpretation of data.
All lessons	7-1.2	Generate questions that can be answered through scientific investigation.
2, 3, 4	7-1.3	Explain the reasons for testing one independent variable at a time in a controlled scientific investigation.
3, 4	7-1.5	Explain the relationships between independent and dependent variables in a controlled scientific investigation through the use of appropriate graphs, tables, and charts.
1, 3, 4	7-1.6	Critique a conclusion drawn from a scientific investigation.
3	7-3.4	Explain the effects of disease on the major organs and body systems (including infectious diseases such as colds and flu, AIDS, and athlete’s foot and noninfectious diseases such as diabetes, Parkinson’s, and skin cancer).
2, 3	8-1.1	Design a controlled scientific investigation.
All lessons	8-1.2	Recognize the importance of a systematic process for safely and accurately conducting investigations.
1, 3, 4	8-1.3	Construct explanations and conclusions from interpretations of data obtained during a controlled scientific investigation.
All lessons	8-1.4	Generate questions for further study on the basis of prior investigations.
South Carolina Mathematics Academic Standards – Grades 6 - 8		
Number and Operations		
Lesson	Standard	Expectation
3, 4	I.G.1	Use integers to describe real-world phenomena in order to develop meanings for integers. (6) Compare and order integers. (7)
3, 4	II.B.1	Apply the commutative, associative, and distributive properties to simplify computations with whole numbers, fractions, and decimals. (6) Apply the associative, commutative, and distributive properties for

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		operations on integers, fractions, and decimals. (7) Apply the associative, commutative, and distributive properties to simplify expressions. (8)
Algebra		
3, 4	I.B.1	Use different forms of representing information (e.g., graphical, symbolic, tabular). (7)
3	II.B.1	Analyze quantitative changes by comparing and contrasting numerical patterns in tables with their respective graphs in the coordinate plane. (7)
3	III.A.1	Use graphs and tables to solve applied problems. (6)
3	IV.A.1	Use tables and graphs to model and analyze linear relationships between variables. (8)
Measurement		
1	II.B	Select and apply techniques and tools to accurately find length, area, volume, and angle measures to appropriate levels of precision.
Data Analysis and Probability		
3, 4	I.A	Formulate questions, design studies, and collect data about a characteristic shared by two populations or different characteristics within one population. (6 & 7)
3	I.B	Select, create, and use appropriate graphical representations of data, including histograms, box plots, and scatterplots.
3	II.B	Discuss and understand the correspondence between data sets and their graphical representations, especially histograms, stem-and-leaf plots, box plots, and scatterplots.
3, 4	III.A.1	Make inferences and predictions based on the analysis of sample data. (7)
3	III.C.1	Formulate a hypothesis and then design and carry out an experiment to test it. (8)
All lessons	III.C.2	Formulate new areas of investigation based on the results of prior experiments. (8)
South Carolina Language Arts Academic Standards – Grades 6 - 8		
Lesson	Standard	Indicator
2, 3, 4	6-R1.3 7-R1.3 8-R1.3	Demonstrate the ability to make connections between a text read independently and his or her prior knowledge, other texts, and the world.

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2, 3, 4	6-R1.4 7-R1.4 8-R1.4	Demonstrate the ability to summarize, and paraphrase texts (6); to summarize, paraphrase, analyze, and evaluate what he or she has read. (7 & 8)
All lessons	6-R1.8 7-R1.8 8-R1.8	Demonstrate the ability to draw conclusions and make inferences.
3, 4	6-R1.12 7-R1.12 8-R1.12	Demonstrate the ability to use graphic representations such as charts, graphs, pictures, and graphic organizers as information sources and as a means of organizing information and events logically.
3, 4	6-R1.14 7-R1.14 8-R1.14	Demonstrate the ability to compare and contrast his or her findings on a particular topic after having extracted that information from two or more pieces of graphic or written material.
All lessons	6-W1.3 7-W1.3 8-W1.3	Demonstrate the ability to develop an extended response around a central idea, using relevant supporting details.
3, 4	6-W1.6.1 7-W1.6.1 8-W1.6.1	Demonstrate the ability to write multiple-paragraph compositions, friendly letters, and expressive and informational pieces.
All lessons	6-W2.1 7-W2.1 8-W2.1	Demonstrate the ability to use writing to explain and inform.
All lessons	6-W2.2 7-W2.2 8-W2.2	Demonstrate the ability to use writing to learn, entertain, and describe.
All lessons	6-W3.1 7-W3.1 8-W3.1	Demonstrate the ability to respond to texts both orally and in writing.
All lessons	6-W3.3 7-W3.3 8-W3.3	Demonstrate the ability to use texts to make connections and to support ideas in his or her own writing.

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All lessons	6-W4.1 7-W4.1 8-W4.1	Demonstrate the ability to write legibly using print or cursive handwriting.
All lessons	6-C1.18 7-C1.17 8-C1.15	Begin/Continue/Demonstrate using critical analysis to formulate appropriate oral responses.
All lessons	6-C2.1 7-C2.1 8-C2.1	Demonstrate the ability to listen for meaning in conversations and discussions.
All lessons	6-C2.2 7-C2.2 8-C2.2	Demonstrate the ability to summarize conversations and discussions.
All lessons	6-C2.3 7-C2.3 8-C2.3	Demonstrate the ability to distinguish between fact and opinion, to compare and contrast information and ideas, and to make inferences with regard to what he or she has heard.
3, 4	6-C2.5 7-C2.5 8-C2.5	Demonstrate the ability to listen to record information as a member of a group.
1, 3	6-C3.2 7-C3.2 8-C3.2	Demonstrate the ability to summarize information that he or she receives from nonprint sources.
3	6-C3.4 7-C3.4 8-C3.4	Demonstrate the ability to make predictions, to distinguish between fact and opinion, to compare and contrast information and ideas, and to make inferences with regard to what he or she has viewed.
3	6-C3.11 7-C3.11 8-C3.11	Demonstrate the ability to make connections between nonprint sources and his or her prior knowledge, other sources, and the world.
All lessons	6-RS1.1 7-RS1.1 8-RS1.1	Demonstrate the ability to ask questions to guide his or her research inquiry.

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All lessons	6-RS1.2 7-RS1.2 8-RS1.2	Begin/Continue/Demonstrate the ability to ask questions to investigate all aspects of a topic, including various viewpoints regarding it.
South Carolina Health Lifetime Wellness Standards – Grade 8		
Lesson	Standard	Indicator
3, 4	I.1.a	Describe how lifestyle behaviors, environment, genetics, and medical care influence health.
3	I.1.b	Explain how disease processes affect body systems.
3, 4	I.1.c	Compare and contrast strategies for reducing the risks of communicable and chronic diseases.
3, 4	I.2.a	Analyze the validity of health information, products, and services.
3, 4	I.3.b	Demonstrate strategies for detection and treatment of common health problems and communicable and chronic diseases.
3, 4	I.4.a	Analyze the influence of peers, family, and mass media on health behaviors.
3, 4	I.4.c	Analyze the influence of technology and the environment on personal health.
3, 4	I.6.a	Predict how decisions regarding health behaviors have consequences for the self, for others, and for the environment.
3, 4	I.7.b	Demonstrate the ability to use a variety of methods to disseminate valid health information.
All lessons	III.5.b	Demonstrate effective interpersonal communication skills.