



The Paper Girls Show's
Junior Scientist Maker Science Program
Georgia Standards Alignment Grades K-5



Literacy Standards

Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
<u>Reading Literary (RL): Integration of Knowledge and Ideas</u>					
ELAGSEKRL7 With prompting and support, describe the relationship between illustrations and the story (how illustrations support the text).	ELAGSE1RL7 Use illustrations and details in a story to describe its characters, setting, or events.	ELAGSE2RL7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.	ELAGSE3RL7 Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).		
<u>Writing (W): Text Types and Purpose</u>					
ELAGSEKW2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they	ELAGSE1W2 Write informative/ explanatory texts in which they name a topic, supply some facts about the topic, and provide	ELAGSE2W2 Write informative/explanator y texts in which they introduce a topic, use facts and definitions to develop	ELAGSE3W2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	ELAGSE4W2 Write informative/explanator y texts to examine a topic and convey ideas and information clearly.	ELAGSE5W2 Write informative/explanator y texts to examine a topic and convey ideas and information clearly.

<p>name what they are writing about and supply some information about the topic.</p>	<p>some sense of closure.</p>	<p>points, and provide a concluding statement or section.</p>	<p>a. Introduce a topic and group related information together; include illustrations when useful to aid comprehension. b. Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information. d. Provide a concluding statement or section.</p>	<p>a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases. (e.g., another, for example, also, because). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.</p>	<p>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.</p>
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Writing (W): Research to Build and Present Knowledge

<p>ELAGSEKW8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p>	<p>ELAGSE1W8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question</p>	<p>ELAGSE2W8 Recall information from experiences or gather information from provided sources to answer a question.</p>	<p>ELAGSE3W8 Recall information from experience or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</p>	<p>ELAGSE4W8 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.</p>	<p>ELAGSE5W8 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.</p>
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Speaking and Listening (SL): Comprehension and Collaboration

<p>ELAGSEKSL1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.</p> <p>a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).</p> <p>b. Continue a conversation through multiple exchanges.</p>	<p>ELAGSE1SL1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).</p> <p>b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.</p> <p>c. Ask questions to clear up any confusion about the topics and texts under discussion.</p>	<p>ELAGSE2SL1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</p> <p>b. Build on others' talk in conversations by linking their comments to the remarks of others.</p> <p>c. Ask for clarification and further explanation as needed about the topics and texts under discussion.</p>	<p>ELAGSE3SL1 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.</p> <p>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.</p> <p>b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</p> <p>c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</p> <p>d. Explain their own ideas and understanding in light of the discussion.</p>	<p>ELAGSE4SL1 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.</p> <p>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.</p> <p>b. Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>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.</p> <p>d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.</p>	<p>ELAGSE5SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>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.</p> <p>b. Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</p> <p>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</p>
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Speaking and Listening (SL): Presentation of Knowledge and Ideas

<p>ELAGSEKSL4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.</p>	<p>ELAGSE1SL4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.</p>	<p>ELAGSE2SL4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</p>	<p>ELAGSE3SL4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p>	<p>ELAGSE4SL4 Report on a topic or text, tell a story, or recount an experience in an organized manner; using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace</p>	<p>ELAGSE5SL4 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; speak clearly at an understandable pace.</p>
<p>ELAGSEKSL6 Speak audibly and express thoughts, feelings, and ideas clearly</p>	<p>ELAGSE1SL6 Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 for specific expectations.)</p>	<p>ELAGSE2SL6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 for specific expectations.)</p>	<p>ELAGSE3SL6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language Standards 1 and 3 for specific expectations.)</p>	<p>ELAGSE4SL6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language Standard 1 for specific expectations.)</p>	<p>ELAGSE5SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language Standards 1 and 3 for specific expectations.)</p>

Science Standards

Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
<u>Earth and Space Science (E)</u>					
		<p>S2E3. Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes to the environment.</p> <p>a. Ask questions to obtain information about major changes to the environment in your community.</p> <p>b. Construct an explanation of the causes and effects of a change to the environment in your community.</p>			
<u>Physical Science (P)</u>					
<p>SKP2. Obtain, evaluate, and communicate information to compare and describe different types of motion.</p> <p>a. Plan and carry out an investigation to determine the relationship between an object's physical attributes and its resulting motion (straight, circular, back and forth, fast and slow, and</p>	<p>S1P1. Obtain, evaluate, and communicate information to investigate light and sound.</p> <p>a. Use observations to construct an explanation of how light is required to make objects visible.</p> <p>b. Ask questions to identify and compare sources of light.</p> <p>d. Construct an explanation</p>			<p>S4P1. Obtain, evaluate, and communicate information about the nature of light and how light interacts with objects.</p> <p>a. Plan and carry out investigations to observe and record how light interacts with various</p>	

<p>motionless) when a force is applied. (Examples could include toss, drop, push, and pull.) b. Construct an argument as to the best way to move an object based on its physical attributes.</p>	<p>supported by evidence that vibrating materials can make sound and that sound can make materials vibrate</p>			<p>materials to classify them as opaque, transparent, or translucent. b. Plan and carry out investigations to describe the path light travels from a light source to a mirror and how it is reflected by the mirror using different angles. c. Plan and carry out an investigation utilizing everyday materials to explore examples of when light is refracted</p>	
				<p>S4P2. Obtain, evaluate, and communicate information about how sound is produced and changed and how sound and/or light can be used to communicate. a. Plan and carry out an investigation utilizing everyday objects to produce sound and predict the effects of changing the strength or speed of vibrations. b. Design and construct a device to communicate across a distance using light and/or sound</p>	
<p><u>Life Science (L)</u></p>					
<p>SKL1. Obtain, evaluate, and communicate information about how organisms (alive and not</p>	<p>S1L1. Obtain, evaluate, and communicate information about the basic needs of plants and</p>		<p>S3L2. Obtain, evaluate, and communicate information about the effects of pollution (air, land, and water) and</p>		

<p>alive) and non-living objects are grouped.</p> <p>a. Construct an explanation based on observations to recognize the differences between organisms and nonliving objects.</p> <p>b. Develop a model to represent how a set of organisms and nonliving objects are sorted into groups based on their attributes.</p>	<p>animals.</p> <p>a. Develop models to identify the parts of a plant—root, stem, leaf, and flower.</p> <p>b. Ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).</p> <p>c. Design a solution to ensure that a plant or animal has all of its needs met</p>		<p>humans in the environment.</p> <p>a. Ask questions to collect information and create records of sources and effects of pollution on the plants and animals.</p> <p>b. Explore, research, and communicate solutions, such as conservation of resources and recycling of materials, to protect plants and animals.</p>		
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Media Arts Standards

Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
<u>Creating</u>					
<p>MAK.CR.1 Generate and conceptualize artistic ideas and work. a. Discover, explore, and share ideas for media artworks through a variety of methods including, but not limited to, play and experimentation</p>	<p>MA1.CR.1 Generate and conceptualize artistic ideas and work. a. Express and share ideas for media artworks through a variety of methods including, but not limited to, sketching and modeling</p>	<p>MA2.CR.1 Generate and conceptualize artistic ideas and work. a. Explore and share multiple ideas for media artworks through a variety of methods including, but not limited to, brainstorming and improvising.</p>	<p>MA3.CR.1 Generate and conceptualize artistic ideas and work. a. Develop and share multiple ideas for media artworks using a variety of tools, methods, and/or materials.</p>	<p>MA4.CR.1 Generate and conceptualize artistic ideas and work. a. Identify and develop ideas, goals, and solutions for original media artworks through authentic engagement focused on creative processes through divergent thinking and open-ended inquiry.</p>	<p>MA5.CR.1 Generate and conceptualize artistic ideas and work. a. Identify and develop ideas, goals, and solutions for original media artworks through authentic engagement focused on creative processes through divergent thinking and open-ended inquiry.</p>

Computer Science/Innovative Designer and Creator Standards

K-2	CSS.IDC.K-2.4: Use the Design Process (use, modify, create) with a variety of tools to identify and solve problems by creating new, modified, or imaginative solutions.
3-5	CSS.IDC.3-5.4 Use a variety of technologies within a design process to identify and solve problems by creating new, useful, or imaginative solutions.

* Innovative design and creation is a multifaceted domain that spans across every content area.

This domain and the related standards are offered explicitly within the computer science standards as 'digital tools are essential in innovation, design, and creation in this digital age.'

The essential part of this standard is the use of digital tools within the processes already established in other disciplines such as the engineering design process (sometimes called design thinking), and the scientific method. The engineering design process is generally used to create or improve upon useful objects, but can also be used to create and improve upon methods and other intangibles. [Computer Science Teacher Notes_Innovative Designer and Creator.pdf \(gadoe.org\)](#)