

National Inventors Hall of Fame Education Programs® Let's Glow Aligned to Next Generation Science and Common Core State Standards	
Kindergarten	
Core Idea	Standard
Common Core Standards for Mathematics	
<b>Measurement and Data:</b> <i>Describe and compare measurable attributes.</i>	K.MD2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.
<b>Geometry:</b> <i>Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes,</i>	K.G1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
	K.G3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
<b>Geometry:</b> <i>Analyze, compare, create, and compose shapes.</i>	K.G5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
Common Core Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI1. With prompting and support, ask and answer questions about key details in a text.
	RI3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
	RI4. With prompting and support, ask and answer questions about unknown words in a text.
	RI5. Identify the front cover, back cover, and title page of a book.
	RI7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
Reading Standards: Foundational Skills K-5	RF1. Demonstrate understanding of the organization and basic features of print.
	a. Follow words from left to right, top to bottom, and page by page.
Writing Standards K-6	W8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
Common Core Standards for English Language Arts	
Speaking and Listening Standards K-6	SL1. 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 (e.g., listening to others and taking turns speaking about the topics and texts under discussion).
	b. Continue a conversation through multiple exchanges.
	SL2. 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.
	SL4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
	SL5. Add drawings or other visual displays to descriptions as desired to provide additional detail.
Language Standards K-6	SL6. Speak audibly and express thoughts, feelings, and ideas clearly.
	L6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

National Inventors Hall of Fame Education Programs® Let's Glow Aligned to Next Generation Science and Common Core State Standards	
Grade One	
Core Idea	Standard
Next Generation Science Standards	
1-PS4 Waves and their Applications in Technologies for Information Transfer	1-PS4-2. Make observations to construct an evidence-based account that objects can be seen only when illuminated.
	1-PS4-3. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.
Common Core Standards for Mathematics	
<b>Geometry:</b> <i>Reason with shapes and their attributes.</i>	1.G2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
Common Core Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI1. Ask and answer questions about key details in a text.
	RI3. Describe the connection between two individuals, events, ideas, or pieces of information in a text.
	RI4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
	RI5. Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
	RI7. Use the illustrations and details in a text to describe its key ideas.
Reading Standards: Foundational Skills K-5	RF2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
Writing Standards K-6	W8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
Common Core Standards for English Language Arts	
Speaking and Listening Standards K-6	SL1. 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 (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
	b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
	SL2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
	SL3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
	SL4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
	SL5. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
Language Standards K-6	L6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).

National Inventors Hall of Fame Education Programs® Let's Glow Aligned to Next Generation Science and Common Core State Standards	
Grade Two	
Core Idea	Standard
Next Generation Science Standards	
2-PS1 Matter and its Interactions	2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
	2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
Common Core Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
	RI4. Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
	RI5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
	RI7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
Writing Standards K-6	W8. Recall information from experiences or gather information from provided sources to answer a question.
Speaking and Listening Standards K-6	SL1. 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 (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).
	b. Build on others' talk in conversations by linking their comments to the remarks of others.
	SL3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
	SL4. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
	SL6. 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 on page 26 for specific expectations.)
Language Standards K-6	L6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).

National Inventors Hall of Fame Education Programs® Let's Glow Aligned to Next Generation Science and Common Core State Standards	
Grade Three	
Core Idea	Standard
Next Generation Science Standards	
3-PS2 Motion and Stability: Forces and Interactions	3-PS2-3. Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.
3-5-ETS1 Engineering Design	3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.
Common Core Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI3. 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.
	RI4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
	RI7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
Speaking and Listening Standards K-6	SL1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
	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).
	d. Explain their own ideas and understanding in light of the discussion.
	SL3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
	SL4. 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.
Language Standards K-6	L6. Acquire and use accurately grade-appropriate conversational, general academic, and domainspecific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

National Inventors Hall of Fame Education Programs® Let's Glow Aligned to Next Generation Science and Common Core State Standards	
Grade Four	
Core Idea	Standard
Next Generation Science Standards	
4-PS3 Energy	4-PS3-2. Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
	4-PS3-4. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.
4-PS4 Waves and their Applications in Technologies for Information Transfer	4-PS4-2. Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.
3-5-ETS1 Engineering Design	3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.
Common Core Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
	RI7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
Writing Standards K-6	W2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
	d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
	W4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
Speaking and Listening Standards K-6	SL1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
	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.
	SL4. 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.
Language Standards K-6	L6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).

National Inventors Hall of Fame Education Programs® Let's Glow Aligned to Next Generation Science and Common Core State Standards	
Grade Five	
Core Idea	Standard
Next Generation Science Standards	
3-5-ETS1 Engineering Design	3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.
Common Core Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
	RI7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
Writing Standards K-6	W2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
	d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
	W4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
Common Core Standards for English Language Arts	
Speaking and Listening Standards K-6	SL1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
	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.
	SL4. 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.
Language Standards K-6	L6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).

National Inventors Hall of Fame Education Programs® Let's Glow Aligned to Next Generation Science and Common Core State Standards	
Grade Six	
Core Idea	Standard
Next Generation Science Standards	
MS-PS4 Waves and Their Applications in Technologies for Information Transfer	MS-PS4-1. Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.
	MS-PS4-2. Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.
MS-LS1 From Molecules to Organisms: Structures and Processes	MS-LS1-1. Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.
	MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
Common Core Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
	RI7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
Writing Standards K-6	W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
Speaking and Listening Standards K-6	SL1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
	b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
	c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
	SL2. Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
	SL4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
Common Core Standards for English Language Arts	
Language Standards K-6	L6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
Reading Standards for Literacy in History/Social Studies 6-8	RH4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
Reading Standards for Literacy in Science and Technical Subjects 6-8	RST3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
	RST4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.