

National Inventors Hall of Fame Education Programs® Pop-Up Venture Aligned to Next Generation Science, Common Core State, and CASEL Standards	
Kindergarten	
Core Idea	Standard
Next Generation Science Standards	
K-ESS2 Earth's Systems	K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.
K-ESS3 Earth and Human Activity	K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.
K-2-ETS1 Engineering Design	K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
	K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
	K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
Common Core State Standards for Mathematics	
Counting and Cardinality: <i>Know number names and the count sequence.</i>	K.CC3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
Counting and Cardinality: <i>Count to tell the number of objects.</i>	K.CC4. Understand the relationship between numbers and quantities; connect counting to cardinality.
Measurement and Data: <i>Describe and compare measurable attributes.</i>	K.MD1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
	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.
Geometry: <i>Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).</i>	K.G3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
Geometry: <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 State 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.
	RI4. With prompting and support, ask and answer questions about unknown words in a text.
	RI1. Ask and answer questions about key details in a text.
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.
	RF2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
	c. Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).
	RF4. Read emergent-reader texts with purpose and understanding.
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.
Speaking and Listening Standards K-6	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.
	SL3. Ask and answer questions in order to seek help, get information, or clarify something that 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.
	SL6. Speak audibly and express thoughts, feelings, and ideas clearly.
Language Standards K-6	L6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

CASEL Social and Emotional Learning (SEL) Competencies	
Self-Awareness	Integrating personal and social identities
	Identifying one's emotions
	Demonstrating honesty and integrity
	Linking feelings, values, and thoughts
	Experiencing self-efficacy
	Having a growth mindset
	Developing interests and a sense of purpose
Self-Management	Managing one's emotions
	Exhibiting self-discipline and self-motivation
	Setting personal and collective goals
	Using planning and organizational skills
	Showing the courage to take initiative
	Demonstrating personal and collective agency
Social Awareness	Taking others' perspectives
	Recognizing strengths in others
	Showing concern for the feelings of others
	Recognizing situational demands and opportunities
Relationship Skills	Communicating effectively
	Developing positive relationships
	Practicing teamwork and collaborative problem-solving
Responsible Decision-Making	Demonstrating curiosity and open-mindedness
	Identifying solutions for personal and social problems
	Learning to make a reasoned judgment after analyzing information, data, facts
	Anticipating and evaluating the consequences of one's actions
	Recognizing how critical thinking skills are useful both inside & outside of school
	Reflecting on one's role to promote personal, family, and community well-being
	Evaluating personal, interpersonal, community, and institutional impacts

National Inventors Hall of Fame Education Programs® Pop-Up Venture Aligned to Next Generation Science, Common Core State, and CASEL Standards	
Grade One	
Core Idea	Standard
Next Generation Science Standards	
K-2-ETS1 Engineering Design	K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
	K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
	K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
Common Core State Standards for Mathematics	
Operations and Algebraic Thinking: <i>Add and subtract within 20.</i>	1.OA6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).
Number and Operations in Base Ten: <i>Extend the counting sequence.</i>	1.NBT1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
Geometry: <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 State Standards for English Language Arts	
Reading Standards for Informational Text K-6	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	RF1. Demonstrate understanding of the organization and basic features of print.
	RF2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
	RF4. Read with sufficient accuracy and fluency to support comprehension.

Common Core State 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.
	c. Ask questions to clear up any confusion about the topics and texts under discussion.
	SL2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
Speaking and Listening Standards K-6	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).
CASEL Social and Emotional Learning (SEL) Competencies	
Self-Awareness	Integrating personal and social identities
	Identifying one's emotions
	Demonstrating honesty and integrity
	Linking feelings, values, and thoughts
	Experiencing self-efficacy
	Having a growth mindset
	Developing interests and a sense of purpose
Self-Management	Managing one's emotions
	Exhibiting self-discipline and self-motivation
	Setting personal and collective goals
	Using planning and organizational skills
	Showing the courage to take initiative
	Demonstrating personal and collective agency

CASEL Social and Emotional Learning (SEL) Competencies	
Social Awareness	Taking others' perspectives
	Recognizing strengths in others
	Showing concern for the feelings of others
	Recognizing situational demands and opportunities
Relationship Skills	Communicating effectively
	Developing positive relationships
	Practicing teamwork and collaborative problem-solving
Responsible Decision-Making	Demonstrating curiosity and open-mindedness
	Identifying solutions for personal and social problems
	Learning to make a reasoned judgment after analyzing information, data, facts
	Anticipating and evaluating the consequences of one's actions
	Recognizing how critical thinking skills are useful both inside & outside of school
	Reflecting on one's role to promote personal, family, and community well-being
	Evaluating personal, interpersonal, community, and institutional impacts

National Inventors Hall of Fame Education Programs® Pop-Up Venture Aligned to Next Generation Science, Common Core State, and CASEL Standards	
Grade Two	
Core Idea	Standard
Next Generation Science Standards	
2-PS1 Matter and its Interactions	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.
K-2-ETS1 Engineering Design	K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
	K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
	K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
Common Core State Standards for Mathematics	
Operations and Algebraic Thinking: <i>Add and subtract within 20.</i>	2.OA2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
Numbers and Operations in Base Ten: <i>Understand place value.</i>	2.NBT2. Count within 1000; skip-count by 5s, 10s, and 100s.
Numbers and Operations in Base Ten: <i>Use place value understanding and properties of operations to add and subtract.</i>	2.NBT8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
Measurement and Data: <i>Work with time and money.</i>	2.MD8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?
Common Core State 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.
	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.
Reading Standards: Foundational Skills K-5	RF4. Read with sufficient accuracy and fluency to support comprehension.

Common Core State Standards for English Language Arts	
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.
	c. Ask for clarification and further explanation as needed about the topics and texts under discussion.
	SL2. Recount or describe key ideas or details from 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 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.
Language Standards K-6	L3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
	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).
CASEL Social and Emotional Learning (SEL) Competencies	
Self-Awareness	Integrating personal and social identities
	Identifying one's emotions
	Demonstrating honesty and integrity
	Linking feelings, values, and thoughts
	Experiencing self-efficacy
	Having a growth mindset
	Developing interests and a sense of purpose
Self-Management	Managing one's emotions
	Exhibiting self-discipline and self-motivation
	Setting personal and collective goals
	Using planning and organizational skills
	Showing the courage to take initiative
	Demonstrating personal and collective agency

CASEL Social and Emotional Learning (SEL) Competencies	
Social Awareness	Taking others' perspectives
	Recognizing strengths in others
	Showing concern for the feelings of others
	Recognizing situational demands and opportunities
Relationship Skills	Communicating effectively
	Developing positive relationships
	Practicing teamwork and collaborative problem-solving
Responsible Decision-Making	Demonstrating curiosity and open-mindedness
	Identifying solutions for personal and social problems
	Learning to make a reasoned judgment after analyzing information, data, facts
	Anticipating and evaluating the consequences of one's actions
	Recognizing how critical thinking skills are useful both inside & outside of school
	Reflecting on one's role to promote personal, family, and community well-being
	Evaluating personal, interpersonal, community, and institutional impacts

National Inventors Hall of Fame Education Programs® Pop-Up Venture Aligned to Next Generation Science, Common Core State, and CASEL 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-ESS3 Earth and Human Activity	3-ESS3-1. Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.
3-5-ETS1 Engineering Design	3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
	3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
	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 State Standards for Mathematics	
Operations and Algebraic Thinking: <i>Multiply and divide within 100.</i>	3.OA7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
Measurement and Data: <i>Geometric measurement: understand concepts of area and relate area to multiplication and to addition.</i>	3.MD5. Recognize area as an attribute of plane figures and understand concepts of area measurement.
	a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
Common Core State Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
	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.
	RI5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
	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).

Common Core State Standards for English Language Arts	
Reading Standards: Foundational Skills K-5	RF4. Read with sufficient accuracy and fluency to support comprehension.
	c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
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).
	c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
	d. Explain their own ideas and understanding in light of the discussion.
	SL2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
	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	L3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
	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).
CASEL Social and Emotional Learning (SEL) Competencies	
Self-Awareness	Integrating personal and social identities
	Identifying one's emotions
	Demonstrating honesty and integrity
	Linking feelings, values, and thoughts
	Experiencing self-efficacy
	Having a growth mindset
	Developing interests and a sense of purpose
Self-Management	Managing one's emotions
	Exhibiting self-discipline and self-motivation
	Setting personal and collective goals
	Using planning and organizational skills
	Showing the courage to take initiative
	Demonstrating personal and collective agency

CASEL Social and Emotional Learning (SEL) Competencies	
Social Awareness	Taking others' perspectives
	Recognizing strengths in others
	Showing concern for the feelings of others
	Recognizing situational demands and opportunities
Relationship Skills	Communicating effectively
	Developing positive relationships
	Practicing teamwork and collaborative problem-solving
Responsible Decision-Making	Demonstrating curiosity and open-mindedness
	Identifying solutions for personal and social problems
	Learning to make a reasoned judgment after analyzing information, data, facts
	Anticipating and evaluating the consequences of one's actions
	Recognizing how critical thinking skills are useful both inside & outside of school
	Reflecting on one's role to promote personal, family, and community well-being
	Evaluating personal, interpersonal, community, and institutional impacts

National Inventors Hall of Fame Education Programs® Pop-Up Venture Aligned to Next Generation Science, Common Core State, and CASEL 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.
3-5-ETS1 Engineering Design	3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
	3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
	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 State Standards for Mathematics	
Geometry: <i>Draw and identify lines and angles, and classify shapes by properties of their lines and angles.</i>	4.G1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
	4.G3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.
Common Core State Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
	RI3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
	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.
Reading Standards: Foundational Skills K-5	RF4. Read with sufficient accuracy and fluency to support comprehension.
	c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Common Core State 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 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	L3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
	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).
CASEL Social and Emotional Learning (SEL) Competencies	
Self-Awareness	Integrating personal and social identities
	Identifying one’s emotions
	Demonstrating honesty and integrity
	Linking feelings, values, and thoughts
	Experiencing self-efficacy
	Having a growth mindset
	Developing interests and a sense of purpose
Self-Management	Managing one’s emotions
	Exhibiting self-discipline and self-motivation
	Setting personal and collective goals
	Using planning and organizational skills
	Showing the courage to take initiative
	Demonstrating personal and collective agency
Social Awareness	Taking others’ perspectives
	Recognizing strengths in others
	Showing concern for the feelings of others
	Recognizing situational demands and opportunities

CASEL Social and Emotional Learning (SEL) Competencies	
Relationship Skills	Communicating effectively
	Developing positive relationships
	Practicing teamwork and collaborative problem-solving
Responsible Decision-Making	Demonstrating curiosity and open-mindedness
	Identifying solutions for personal and social problems
	Learning to make a reasoned judgment after analyzing information, data, facts
	Anticipating and evaluating the consequences of one's actions
	Recognizing how critical thinking skills are useful both inside & outside of school
	Reflecting on one's role to promote personal, family, and community well-being
	Evaluating personal, interpersonal, community, and institutional impacts

National Inventors Hall of Fame Education Programs® Pop-Up Venture Aligned to Next Generation Science, Common Core State, and CASEL Standards	
Grade Five	
Core Idea	Standard
Next Generation Science Standards	
3-5-ETS1 Engineering Design	3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
	3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
	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 State Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
	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.
Reading Standards: Foundational Skills K-5	RF4. Read with sufficient accuracy and fluency to support comprehension.
	c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
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.
Speaking and Listening Standards K-6	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	L3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
	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).

CASEL Social and Emotional Learning (SEL) Competencies	
Self-Awareness	Integrating personal and social identities
	Identifying one's emotions
	Demonstrating honesty and integrity
	Linking feelings, values, and thoughts
	Experiencing self-efficacy
	Having a growth mindset
	Developing interests and a sense of purpose
Self-Management	Managing one's emotions
	Exhibiting self-discipline and self-motivation
	Setting personal and collective goals
	Using planning and organizational skills
	Showing the courage to take initiative
	Demonstrating personal and collective agency
Social Awareness	Taking others' perspectives
	Recognizing strengths in others
	Showing concern for the feelings of others
	Recognizing situational demands and opportunities
Relationship Skills	Communicating effectively
	Developing positive relationships
	Practicing teamwork and collaborative problem-solving
Responsible Decision-Making	Demonstrating curiosity and open-mindedness
	Identifying solutions for personal and social problems
	Learning to make a reasoned judgment after analyzing information, data, facts
	Anticipating and evaluating the consequences of one's actions
	Recognizing how critical thinking skills are useful both inside & outside of school
	Reflecting on one's role to promote personal, family, and community well-being
	Evaluating personal, interpersonal, community, and institutional impacts

National Inventors Hall of Fame Education Programs® Pop-Up Venture Aligned to Next Generation Science, Common Core State, and CASEL Standards	
Grade Six-Eight	
Core Idea	Standard
Next Generation Science Standards	
MS-ETS1 Engineering Design	MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
	MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
	MS-ETS1-3. Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.
	MS-ETS1-4. Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.
Common Core State Standards for English Language Arts	
Reading Standards for Informational Text K-6	RI.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
	RI.7. 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.
Speaking and Listening Standards K-6	SL.1. 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.
	d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.
Language Standards K-6	SL.4. 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.
	L.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
	L.6. 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.

Common Core State Standards for English Language Arts	
Reading Standards for Literacy in History/Social Studies 6-8	RH3. Identify key steps in a text’s description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).
	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	RST7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
CASEL Social and Emotional Learning (SEL) Competencies	
Self-Awareness	Integrating personal and social identities
	Identifying one’s emotions
	Demonstrating honesty and integrity
	Linking feelings, values, and thoughts
	Experiencing self-efficacy
	Having a growth mindset
	Developing interests and a sense of purpose
Self-Management	Managing one’s emotions
	Exhibiting self-discipline and self-motivation
	Setting personal and collective goals
	Using planning and organizational skills
	Showing the courage to take initiative
	Demonstrating personal and collective agency
Social Awareness	Taking others’ perspectives
	Recognizing strengths in others
	Showing concern for the feelings of others
	Recognizing situational demands and opportunities
Relationship Skills	Communicating effectively
	Developing positive relationships
	Practicing teamwork and collaborative problem-solving

CASEL Social and Emotional Learning (SEL) Competencies	
Responsible Decision-Making	Demonstrating curiosity and open-mindedness
	Identifying solutions for personal and social problems
	Learning to make a reasoned judgment after analyzing information, data, facts
	Anticipating and evaluating the consequences of one's actions
	Recognizing how critical thinking skills are useful both inside & outside of school
	Reflecting on one's role to promote personal, family, and community well-being
	Evaluating personal, interpersonal, community, and institutional impacts