3DuxDesign Alphabet City Standard Alignment

X = Core Project Standards   **X = Optional Project Extension**

Alphabet City: Next Generation Science Standards Grade 1		
Waves: Light and Sound		
1-PS4-1	Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials viberate.	
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.	
1-PS4-4	Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.	
Structure, Function, and Information Processing		
1-LS1-1	Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	
1-LS1-2	Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	
1-LS3-1	Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	
Space Systems: Patterns and Cycles		
1-ESS1-1	Use observations of the sun, moon, and stars to describe patterns that can be predicted.	
1-ESS1-2	Make obsercations at different times of year to relate the amount of daylight to the time of year.	
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.	X
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.	X
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.	X

Alphabet City: Common Core Standards Grade 1		
Reading: Informational Text		
RI.1.1	Ask and answer questions about key details in a text.	X
RI.1.2	Identify the main topic and retell key details of a text.	X
RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.	
RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	
RI.1.5	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.	
RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.	
RI.1.7	Use the illustrations and details in a text to describe its key ideas.	
RI.1.8	Identify the reasons an author gives to support points in a text.	
RI.1.9	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	
RI.1.10	With prompting and support, read informational texts appropriately complex for grade 1.	
Reading: Literature		
RL.1.1	Ask and answer questions about key details in a text.	
RL.1.2	Retell stories, including key details, and demonstrate understanding of their central message or lesson.	
RL.1.3	Describe characters, settings, and major events in a story, using key details.	
RL1.4	Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	
RL.1.6	Identify who is telling the story at various points in a text.	
RL.1.7	Use illustrations and details in a story to describe its characters, setting, or events.	
RL.1.9	Compare and contrast the adventures and experiences of characters in stories.	
RL.1.10	With prompting and support, read prose and poetry of appropriate complexity for grade 1.	
Reading: Foundational Skills		
RF.1.1	Demonstrate understanding of the organization and basic features of print.	
RF.1.2	Demonstrate understanding of spoken words, syllables, and sounds (phonemes).	
RF.1.2a	Distinguish long from short vowel sounds in spoken single-syllable words.	
RF.1.2b	Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.	
RF.1.2c	Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.	
RF.1.2d	Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).	
RF.1.3	Know and apply grade-level phonics and word analysis skills in decoding words.	
RF.1.3a	Know the spelling-sound correspondences for common consonant digraphs (two letters that represent one sound).	
RF.1.3b	Decode regularly spelled one-syllable words.	
RF.1.3c	Know final -e and common vowel team conventions for representing long vowel sounds.	

RF.1.3d	Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.	
RF.1.3e	Decode two-syllable words following basic patterns by breaking the words into syllables.	
RF.1.3f	Read words with inflectional endings.	
RF.1.3g	Recognize and read grade-appropriate irregularly spelled words.	
RF.1.4	Read with sufficient accuracy and fluency to support comprehension.	
RF.1.4a	Read grade-level text with purpose and understanding.	
RF.1.4b	Read grade-level text orally with accuracy, appropriate rate, and expression.	
RF.1.4c	Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	
	Writing	
W.1.1	Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	
W.1.2	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	
W.1.3	Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	
W.1.5	With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.	
W.1.6	With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.	
W.1.7	Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).	
W.1.8	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	
	Speaking and Listening	
SL.1.1	Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.	X
SL.1.1a	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).	X
SL.1.1b	Build on others' talk in conversations by responding to the comments of others through multiple exchanges.	X
SL.1.1c	Ask questions to clear up any confusion about the topics and texts under discussion.	X
SL.1.2	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	
SL.1.3	Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	X
SL.1.4	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	X
SL.1.5	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	X
SL.1.6	Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 here for specific expectations.)	X
	Language	
L.1.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	X
L.1.1a	Print all upper- and lowercase letters.	X
L.1.1b	Use common, proper, and possessive nouns.	
L.1.1c	Use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop).	
L.1.1d	Use personal, possessive, and indefinite pronouns (e.g., I, me, my; they, them, their, anyone, everything).	
L.1.1e	Use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; Today I walk home; Tomorrow I will walk home).	
L.1.1f	Use frequently occurring adjectives.	
L.1.1g	Use frequently occurring conjunctions (e.g., and, but, or, so, because).	
L.1.1h	Use determiners (e.g., articles, demonstratives).	
L.1.1i	Use frequently occurring prepositions (e.g., during, beyond, toward).	
L.1.1j	Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.	
L.1.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
L.1.2a	Capitalize dates and names of people.	
L.1.2b	Use end punctuation for sentences.	
L.1.2c	Use commas in dates and to separate single words in a series.	
L.1.2d	Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.	
L.1.2e	Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.	
L.1.3	(Begins in Grade 2)	
L.1.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies.	
L.1.4a	Use sentence-level context as a clue to the meaning of a word or phrase.	
L.1.4b	Use frequently occurring affixes as a clue to the meaning of a word.	
L.1.4c	Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking).	

Code	Description	
L.1.5	With guidance and support from adults, demonstrate understanding of figurative language, word relationships and nuances in word meanings.	
L.1.5a	Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.	
L.1.5b	Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes).	
L.1.5c	Identify real-life connections between words and their use (e.g., note places at home that are cozy).	
L.1.5d	Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.	
L.1.6	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).	
Math: Operations and Algebraic Thinking Standards		
1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	
1.OA.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	
1.OA.3	Apply properties of operations as strategies to add and subtract. Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)	
1.OA.4	Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8. Add and subtract within 20.	
1.OA.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	
1.OA.6	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 $6 + 6 + 1 = 12 + 1 = 13$).	
1.OA.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.	
1.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = \_ - 3$, $6 + 6 = \_$.	
Math: Number and Operations in Base Ten Standards		
1.NBT.1	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.	
1.NBT.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:	
1.NBT.2a	10 can be thought of as a bundle of ten ones — called a "ten."	
1.NBT.2b	The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	
1.NBT.2c	The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	
1.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	
1.NBT.4	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	
1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	
1.NBT.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	
Math - Measurement and Data		
MD.A.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.	
MD.A.2	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.	
MD.A.3	Tell and write time in hours and half-hours using analog and digital clocks.	
MD.A.4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	
Math - Geometry		
G.A.1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.	X
G.A.2	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.	X
G.A.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	

Alphabet City: ISTE Grade 1		
Empowered Learner		
1.1	Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.	**X**
1.1 a	Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.	
1.1 b	Students build networks and customize their learning environments in ways that support the learning process.	
1.1 c	Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	
1.1 d	Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.	
Digital Citizen		
1.2	Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.	
1.2 a	Students cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.	
1.2 b	Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.	
1.2 c	Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	
1.2 d	Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.	
Knowledge Constructor		
1.3	Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.	**X**
1.3 a	Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	**X**
1.3 b	Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.	
1.3 c	Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.	
1.3 d	Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.	
Innovative Designer		
1.4	Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.	**X**
1.4 a	Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.	**X**
1.4 b	Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.	
1.4 c	Students develop, test and refine prototypes as part of a cyclical design process.	**X**
1.4 d	Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.	
Computational Thinker		
1.5	Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.	
1.5 a	Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.	
1.5 b	Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.	
1.5 c	Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.	
1.5 d	Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.	
Creative Communicator		
1.6	Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.	**X**
1.6 a	Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	**X**
1.6 b	Students create original works or responsibly repurpose or remix digital resources into new creations.	**X**
1.6 c	Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.	**X**
1.6 d	Students publish or present content that customizes the message and medium for their intended audiences.	
Global Collaborator		
1.7	Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.	
1.7 a	Students use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.	
1.7 b	Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.	
1.7 c	Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.	
1.7 d	Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.	