

Edventures STEAMventures Transportation Standards Alignment

Next Generation Science Standards:*

- NGSS Core Idea ETS1.A: Defining Engineering Problems
- NGSS K-2-ETS1-1: Engineering Design
- NGSS K-2-ETS1-3: Engineering Design
- NGSS K-PS2-2: Forces and Motion

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Common Core State Standards for Mathematics:

- CCSS.MATH.CONTENT.K.CC.A.1: Count to 100 by ones and by tens.
- CCSS.MATH.CONTENT.K.CC.A.2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- CCSS.MATH.CONTENT.K.CC.B.4.B: Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
- CCSS.MATH.CONTENT.K.CC.B.4: Understand the relationship between numbers and quantities; connect counting to cardinality.
- CCSS.MATH.CONTENT.K.CC.B.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.
- CCSS.MATH.CONTENT.K.CC.C.6: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
- CCSS.MATH.CONTENT.K.G.A.1: 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.
- CCSS.MATH.CONTENT.K.G.A.2: Correctly name shapes regardless of their orientations or overall size.
- CCSS.MATH.CONTENT.K.G.B.4: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).
- CCSS.MATH.CONTENT.K.G.B.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
- CCSS.MATH.CONTENT.K.G.B.6: Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"

- CCSS.MATH.CONTENT.K.MD.A.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- CCSS.MATH.CONTENT.K.MD.A.2: 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.
- CCSS.MATH.CONTENT.K.MD.B.3: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

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Common Core State Standards for English Language Arts:

- CCSS.ELA-LITERACY.L.K.1.A: Print many upper- and lowercase letters.
- CCSS.ELA-LITERACY.L.K.4.A: Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).
- CCSS.ELA-LITERACY.L.K.5.A: Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.
- CCSS.ELA-LITERACY.L.K.5.C: Identify real-life connections between words and their use (e.g., note places at school that are colorful).
- CCSS.ELA-LITERACY.L.K.6: Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
- CCSS.ELA-LITERACY.RF.K.1.A: Follow words from left to right, top to bottom, and page by page.
- CCSS.ELA-LITERACY.RF.K.1.B: Recognize that spoken words are represented in written language by specific sequences of letters.
- CCSS.ELA-LITERACY.RF.K.2.B: Count, pronounce, blend, and segment syllables in spoken words.
- CCSS.ELA-LITERACY.RF.K.2.D: Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words. (This does not include CVCs ending with /l/, /r/, or /x/.)
- CCSS.ELA-LITERACY.RF.K.3.A: Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary sound or many of the most frequent sounds for each consonant.
- CCSS.ELA-LITERACY.RF.K.4: Read emergent-reader texts with purpose and understanding.
- CCSS.ELA-LITERACY.SL.K.1.A: Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).
- CCSS.ELA-LITERACY.SL.K.1.B: Continue a conversation through multiple exchanges.
- CCSS.ELA-LITERACY.SL.K.2: 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.

- CCSS.ELA-LITERACY.SL.K.4: Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
- CCSS.ELA-LITERACY.SL.K.5: Add drawings or other visual displays to descriptions as desired to provide additional detail.
- CCSS.ELA-LITERACY.SL.K.6: Speak audibly and express thoughts, feelings, and ideas clearly.
- CCSS.ELA-LITERACY.W.K.3: Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

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International Society for Technology in Education:

- 1.3.c Curate Information: 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 Explore Real-World Issues: Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.
- 1.4.a Design Process: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
- 1.4.b Design Constraints: Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
- 1.4.c Prototypes: Students develop, test and refine prototypes as part of a cyclical design process.
- 1.6.a Choose Platforms or Tools: Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
- 1.6.c Models and Visualizations: Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.
- 1.7.c Project Teams: Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
- 1.7.d Local and Global Issues: Students explore local and global issues, and use collaborative technologies to work with others to investigate solutions.

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National Core Arts Standards:

- VA:Cn10.1.Ka: Create art that tells a story about a life experience.
- VA:Cn10.1.Pka: Explore the world using descriptive and expressive words and art-making.
- VA:Cn11.1.Ka Identify a purpose of an artwork.
- VA:Cn11.1.Pka: Recognize that people make art.
- VA:Cr1.1.Ka Engage in exploration and imaginative play with materials.
- VA:Cr1.1.Ka: Use various materials and tools to create artworks.
- VA:Cr1.2.Ka Engage collaboratively in creative art-making in response to an artistic problem.
- VA:Cr1.2.PKa Engage in self directed, creative making.
- VA:Cr1.K: Generate and conceptualize artistic ideas and work.
- VA:Cr2.1.Ka: Through experimentation, build skills in various media and approaches to artmaking.
- VA:Cr2.1.PKa Use a variety of artmaking tools
- VA:Cr2.2.Ka: Identify safe and non-toxic art materials, tools, and equipment.
- VA:Cr2.2.PKa: Share materials with others.
- VA:Cr2.3.Ka: Create art that represents natural and constructed environments.
- VA:Cr2.3.PKa: Create and tell about art that communicates a story about a familiar place or object.
- VA:Cr3.1.PKa: Share and talk about personal artwork.
- VA:Re.7.2.Ka: Describe what an image represents.

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Habits of Mind:

16 thinking habits developed by Art Costa and Bena Kallick to empower students to succeed in a 21st-century learning environment.

- Managing Impulsivity
- Thinking Interdependently
- Striving for Accuracy
- Applying Past Knowledge to New Situations
- Gathering Data through All Senses
- Creating, Imagining, Innovating
- Taking Responsible Risks
- Finding Humor
- Listening with Understanding and Empathy
- Thinking and Communicating with Clarity and Precision
- Responding with Wonderment and Awe

- Persisting
- Thinking about Your Thinking (Metacognition)
- Remaining Open to Continuous Learning
- Questioning and Posing Problems
- Thinking Flexibly

21st Century Skills:

A set of widely-applicable abilities essential for success in the information age.

- Communication and Collaboration
- Critical Thinking and Problem Solving
- Information, Media, and Technology Literacy
- Initiative and Self-Direction
- Creativity and Innovation
- Social and Cross-Cultural Skills
- Leadership and Responsibility
- Flexibility and Adaptability
- Productivity and Accountability

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