

Appendix D:

Standard Sets & Goals

Note: Standard Sets & Goals are listed in no particular order.

Unit 1 Standard Sets & Goals

New York Social Emotional Standards:

- 1A.1a: Recognize and describe emotions and how they are linked to behavior.
- 1C.1a: Describe why learning is important in helping students achieve personal goals.
- 1C.1b: Identify goals for personal behavior progress, achievement, or success.
- 2A.1a: Recognize that others may experience situations differently from oneself.
- 2A.1b: Use listening skills to identify the feelings and perspectives of others.

Computer Science Teacher Association Standards:

- 1A-CS-02: Use appropriate terminology in identifying and describing the function of common physical components of computing systems (hardware).

New York State Social Studies Standards:

- K.1a: A sense of self is developed through physical and cultural characteristics and through the development of personal likes, dislikes, talents, and skills.

International Society for Technology Education Standards (ISTE) for Students:

- 1a: 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.

International Society for Technology Education Standards (ISTE) for Educators:

- 5a: Use technology to create, adapt, and personalize learning experiences that foster independent learning and accommodate learner differences and needs.
- 5b: Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active deep learning.
- 5c: Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning.
- 6a: Foster a culture where students take ownership of their learning goals and outcomes in both independent and group settings.

Unit 2 Standard Sets & Goals

New York Social Emotional Standards:

- 3A.1b: Identify social norms and safety considerations that guide behavior.
- 3B.1a: Identify a range of decisions that students make at school and at home.
- 3B.1b: Make positive choices when interacting with classmates

Computer Science Teacher Association (CSTA) Standards:

- 1A-AP-08: Model daily processes by creating and following algorithms (sets of step-by-step instructions) to complete tasks
- 1A-AP-10: Develop programs with sequences and simple loops, to express ideas or address a problem.

- 1A-AP-11: Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.

New York State Social Studies Standards:

- K.4b: Children can be responsible members of a family or classroom and can perform important duties to promote the safety and general welfare of the group.
- 1.3a: An engaged and active citizen participates in the activities of the group or community and makes positive contributions.
- 1.3b: Traits of a responsible citizen include respecting others, behaving honestly, helping others, obeying rules and laws, being informed, and sharing needed resources.

Common Core English Language Arts Standards:

- CCSS.ELA-LITERACY.SL.1.1.C: Ask questions to clear up any confusion about the topics and texts under discussion.
- CCSS.ELA-LITERACY.W.K.7: Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).
- CCSS.ELA-LITERACY.W.1.8: With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

International Society for Technology Education Standards (ISTE) for Students:

- 1a: 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.
- 3a: Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
- 3b: Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
- 3c: Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
- 3d: Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.
- 4a: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
- 4c: Students develop, test and refine prototypes as part of a cyclical design process.
- 4d: Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.
- 5c: Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.
- 5d: Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.
- 7d: Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.

International Society for Technology Education Standards (ISTE) for Educators:

- 3b: Establish a learning culture that promotes curiosity and critical examination of online resources and fosters digital literacy and media fluency.
- 5a: Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs.
- 5b: Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning.
- 5c: Explore and apply instructional design principles to create innovative digital learning environments that

engage and support learning.

- 6a: Foster a culture where students take ownership of their learning goals and outcomes in both independent and group settings.
- 6c: Create learning opportunities that challenge students to use a design process and computational thinking to innovate and solve problems.

United Nations Sustainability Goals:

- Goal 4: Quality Education
- Goal 6: Clean Water and Sanitation
- Goal 11: Sustainable Cities and Communities
- Goal 12: Responsible Consumption and Production
- Goal 13: Climate Action
- Goal 14: Life Below Water
- Goal 15: Life on Land

Next Generation Science Standards (NGSS):

- 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-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

Common Core Math Standards:

- CCSS.MATH.CONTENT.2.MD.A.1: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Unit 3 Standard Sets & Goals

New York Social Emotional Standards:

- 2D.1a. Identify problems and conflicts commonly experienced by peers.
- 2D.1b. Identify approaches to resolving conflicts constructively.
- 3A.1a. Explain why acts that hurt others are wrong.

Computer Science Teacher Association (CSTA) Standards:

- 1A-AP-14 Debug (identify and fix) errors in an algorithm or program that includes sequences and simple loops
- 1A-AP-15 Using correct terminology, describe steps taken and choices made during the iterative process of program development.

New York State Social Studies Standards:

- 1.3c As global citizens, we are connected to people and cultures beyond our own community and nation, and we have a shared responsibility to protect and respect our world.
- 1.4c Children can participate in problem solving, decision making, and conflict resolution within their home, school, and community.

Common Core English Language Arts Standards:

- CCSS.ELA-LITERACY.SL.1.1.B: Build on others' talk in conversations by responding to the comments of others through multiple exchanges

International Society for Technology Education Standards (ISTE) for Students:

- 1a: 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.
- 3a: Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
- 3b: Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
- 3c: Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
- 3d: Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.
- 4a: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
- 4c: Students develop, test and refine prototypes as part of a cyclical design process.
- 4d: Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.
- 5d: Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.
- 6a: Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
- 6c: Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.
- 7d: Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.

International Society for Technology Education Standards (ISTE) for Educators:

- 5a: Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs.
- 5b: Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning.
- 5c: Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning.
- 6a: Foster a culture where students take ownership of their learning goals and outcomes in both independent and group settings.
- 6c: Create learning opportunities that challenge students to use a design process and computational thinking to innovate and solve problems.
- 7a: Provide alternative ways for students to demonstrate competency and reflect on their learning using technology.

United Nations Sustainability Goals:

- Goal 4: Quality Education
- Goal 6: Clean Water and Sanitation
- Goal 11: Sustainable Cities and Communities
- Goal 12: Responsible Consumption and Production
- Goal 13: Climate Action
- Goal 14: Life Below Water
- Goal 15: Life on Land

Next Generation Science Standards (NGSS):

- 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-ESS3-3. Communicate solutions that will reduce the impact of humans on living organism