

The complexities of today's world require students to be equipped with a new set of core knowledge and skills to solve difficult problems, gather and evaluate evidence, and make sense of information they receive from varied print and, increasingly, digital media. A strong STEAM education is becoming increasingly recognized as a key driver of opportunity.¹

The Lead4Change curriculum teaches leadership as students identify and fulfill a need in their community, and encourages the development of these important skills.

The International Society for Technology in Education (ISTE) has developed standards for students that bring STEAM education into classrooms around the world. Designed to empower student voice and ensure learning is a student-driven process, these standards

are reflected in the Lead4Change lessons and promote growth in STEAM knowledge.

ISTE Standards for Students and Lead4Change curriculum promote a student that is a:

- 1 Empowered Learner
- 2 Digital Citizen
- 3 Knowledge Constructor
- 4 Innovative Designer
- 5 Computational Thinker
- 6 Creative Communicator
- 7 Global Collaborator

The table below demonstrates how each lesson builds STEAM knowledge and aligns with ISTE standards.

LESSON	ISTE STANDARDS	ISTE SUBSTANDARDS
1 BE YOUR BEST SELF	1 Empowered Learner	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.
2 UNLEASH THE POWER OF PEOPLE	1 Empowered Learner	1b Students build networks and customize learning environments in ways that support the learning process.
	7 Global Collaborator	7b Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.
3 BE AN AVID LEARNER	2 Digital Citizen	2b Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.
	3 Knowledge Constructor	3a Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits. 3d Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.
	7 Global Collaborator	7b Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints. 7c Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal. 7d Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.

¹U.S. Department of Education, Office of Innovation and Improvement. (2016). *STEM 2026: A Vision for Innovation in STEM Education*. Washington, DC: Author

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LESSON	ISTE STANDARDS	ISTE SUBSTANDARDS
4 AN INSIGHT-DRIVEN APPROACH TO LEADING PEOPLE & ACHIEVING BIG GOALS	1 Empowered Learner	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.
	3 Knowledge Constructor	3d Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.
	4 Innovative Designer	4a Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems. 4d Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.
	7 Global Collaborator	7b Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints. 7d Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.
5 TELL IT LIKE IT IS	1 Empowered Learner	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.
	6 Creative Communicator	6a Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. 6d Students publish or present content that customizes the message and medium for their intended audiences.
	7 Global Collaborator	7c Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
6 CREATE A TEAM STRUCTURE & CULTURE	4 Innovative Designer	4a Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
	5 Computational Thinker	5c Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.
	7 Global Collaborator	7c Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

LESSON	ISTE STANDARDS	ISTE SUBSTANDARDS
7 YOU HAVE TO BELIEVE IT CAN BE DONE	1 Empowered Learner	1b Students build networks and customize their learning environments in ways that support the learning process.
	2 Digital Citizen	2b Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.
	6 Creative Communicator	6a Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. 6b Students create original works or responsibly repurpose or remix digital resources into new creations. 6d Students publish or present content that customizes the message and medium for their intended audiences.
	7 Global Collaborator	7b Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.
8 PERSONALIZE YOUR VISION	6 Creative Communicator	6a Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. 6b Students create original works or responsibly repurpose or remix digital resources into new creations. 6d Students publish or present content that customizes the message and medium for their intended audiences.
9 MARKET & BE THE CHANGE	1 Empowered Learner	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.
	2 Digital Citizen	2b Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices
	3 Knowledge Constructor	3d Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.
	6 Creative Communicator	6a Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. 6b Students create original works or responsibly repurpose or remix digital resources into new creations. 6c Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations. 6d Students publish or present content that customizes the message and medium for their intended audiences.
	7 Global Collaborator	7a 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. 7b Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.

LESSON	ISTE STANDARDS	ISTE SUBSTANDARDS
10 MEASURE PROJECT OUTCOMES & OVERCOME BARRIERS TO SUCCESS	4 Innovative Designer	4d Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems
	5 Computational Thinker	5b 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. 5c Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.
11 THE CHANGE IS NEVER OVER	1 Empowered Learner	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.
	3 Knowledge Constructor	3d Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.
	4 Innovative Designer	4c Students develop, test and refine prototypes as part of a cyclical design process.
	6 Creative Communicator	6d Students publish or present content that customizes the message and medium for their intended audiences.
12 SHARE YOUR STORY	1 Empowered Learner	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.
	2 Digital Citizen	2b Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.
	6 Creative Communicator	6a Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. 6b Students create original works or responsibly repurpose or remix digital resources into new creations.
	7 Global Collaborator	7a 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.