

Standards Alignment: Invent It Challenge



| <p>ISTE NETS'S Standards</p> <p>http://www.iste.org/standards/standards-for-students</p> | <p>Next Generation Science Standards</p> <p>http://www.nextgenscience.org</p> | <p>National Association for Environmental Education Guidelines for Excellence</p> <p>http://bit.ly/2dZuaAO</p> | <p>21st Century Learning Standards</p> <p>www.p21.org</p> | <p>Common Core State Standards for English Language Arts</p> <p>www.corestandards.org</p> | <p>STEAM</p> <p>www.steamedu.com</p> |
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| <p>1. Creativity and Innovation</p> <p>2. Communication and Collaboration</p> <p>3. Research and Information Fluency</p> <p>4. Critical Thinking, Problem Solving, and Decision Making</p> | <p>Dimension 1: Practices Asking questions; Developing and using models; Planning and carrying out investigations; Analyzing and interpreting data; Constructing explanations and designing solutions; Engaging in argument from evidence; Obtaining, evaluating and communicating information</p> <p>Dimension 2: Crosscutting Concepts</p> <ul style="list-style-type: none"> • Cause and Effect • Systems and system models • Energy and Matter: Flows, cycles, and conservation • Stability and Change <p>Dimension 3: Disciplinary Core Ideas</p> <p>Life Science LS2: Ecosystems: Interactions, Energy, Dynamics</p> <p>Earth Science ESS2-Earth's Systems</p> <p>Physical Science PS3 Energy</p> <p>Engineering & Technology ETS1 Engineering Design</p> | <p>Strand 1: Questioning, Analysis, and Interpretation Skills</p> <p>Strand 2: Knowledge of Environmental Processes and Systems</p> <p>Strand 3: Skills for Understanding and Addressing Environmental Issues</p> <p>Strand 4: Personal and Civic Responsibility</p> | <p>Learning and Innovation Skills</p> <ul style="list-style-type: none"> • Creativity and Innovation • Critical Thinking and Problem Solving • Communication and Collaboration <p>Information, Media and Technology Skills</p> <ul style="list-style-type: none"> • Information Literacy • Media Literacy • ICT (Information, Communications and Technology) Literacy <p>Life and Career Skills</p> <ul style="list-style-type: none"> • Initiative and Self-Direction • Productivity and Accountability | <p><u>CCSS.ELA -Literacy.CCRA.W.4</u> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><u>CCSS.ELA -Literacy.CCRA.W.6</u> Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.</p> <p><u>CCSS.ELA -Literacy.CCRA.W.7</u> Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.</p> <p><u>CCSS.ELA -Literacy.CC RA.W.8</u> Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.</p> <p><u>CCSS.ELA -Literacy.CC RA.W.9</u> Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p><u>CCSS.ELA -Literacy.CC RA.SL.5</u> Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.</p> | <p>Science</p> <ul style="list-style-type: none"> • Conduct scientific inquiry through the Spark!Lab Process of Inquiry <p>Technology</p> <ul style="list-style-type: none"> • Conduct online research • Communicate an invention idea through a digital presentation <p>Engineering</p> <ul style="list-style-type: none"> • Solve a problem • Design an invention • Build a prototype <p>Arts</p> <ul style="list-style-type: none"> • Imagine and sketch an invention • Create a 3-D prototype <p>Math</p> <ul style="list-style-type: none"> • Measure and create a scale model of the invention • Analyze data to refine invention |