

5th Grade Tech ED Curriculum

| Essential Questions/ Challenges | Standards | Learning Targets | Resources | Assessments | Lesson Ideas |
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| <p>Week 1-7</p> <p>How can I learn to work and communicate faster through technology?</p> | <p>3-5.TC.2.</p> | <p>I can learn proper techniques to improve efficiency in keyboarding.</p> | <p>Typing.com</p> | <p>Assessments are built into keyboarding program.</p> | <p>Lessons completed may be tied to material requests for bridge building.</p> |
| <p>Week 1</p> <p>What are acceptable and unacceptable uses of technology?</p> <p>How can online information be used unethically?</p> <p>How can I take precautions to stay safe online?</p> <p>What types of information should not be given online?</p> | <p>3-5.DC.1. 3-5.DC.2. 3-5.DC.3. 3-5.DC.4.</p> | <p>I can evaluate acceptable and unacceptable uses of technology.</p> <p>I can evaluate ethical uses of information.</p> <p>I can describe precautions surrounding personal safety online.</p> <p>I can identify types of information that should not be given online.</p> | <p>https://sos.fbi.gov/</p> | <p>FBI SOS Assessment</p> <p>Kahoot Quizzes created around FBI SOS Website</p> | <p>FBI SOS Website</p> <p>Lessons completed may be tied to material requests for bridge build.</p> <p>Guest Speaker: Officer Smoes</p> |

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| <p>Week 2-7</p> <p>How can I use both input and output devices in creating wind turbines?</p> <p>How can I care for computer software and hardware to maintain functionality and keep longevity?</p> <p>How do I share information with students and teachers?</p> <p>How will the design process help make engineering decisions?</p> | <p>3-5.TC.1 3-5.TC.4 3-5.TC.5</p> <p>3-5.CC.1</p> <p>3-5.CT.3</p> <p>3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3</p> <p>ETS1.B 5-ESS3-1 ESS3.C HS-PS3-3 HS-PS3-1</p> <p>5.NBT6 5.G2</p> | <p>I can use input and output devices.</p> <p>I can demonstrate proper care for hardware and software.</p> <p>I can exchange files with students and teachers.</p> <p>I can use digital communication tools and online resources for group learning projects.</p> <p>I can use digital resources to investigate global issues.</p> <p>I can plan a course of action to obtain wanted materials for bridge building.</p> <p>I can propose multiple bridge decisions to consider before building.</p> <p>I can follow a plan making adjustments along the way to incorporate</p> | <p>GE Additive Education Program</p> | <p>Assessment will be based on process to final product.</p> | <p>Tinkering with Turbines</p> |
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| | | improvements. | | | |
| <p>Week 2-7</p> <p>How can I search for valued information using search engines?</p> <p>How do I know which information to value?</p> <p>How can the internet help me make decisions?</p> <p>How can I build a strong bridge?</p> | <p>3-5.RI.1.</p> <p>3-5.RI.4.</p> <p>3-5.CT.2.</p> <p>3-5.CC.1.</p> | <p>I can use strategies for locating valued information.</p> <p>I can use multiple internet sources.</p> <p>I can use online information to help make building decisions.</p> <p>I can use digital communication tools and online resources for group learning projects.</p> | <p>PBS Building Big Website</p> | <p>Assessment will be based on process to final product.</p> | <p>Tongue Depressor Bridges</p> |
| <p>How can I use the Design Process to compete in challenges?</p> | <p>3-5-ETS1-1</p> <p>3-5-ETS1-2</p> <p>3-5-ETS1-3</p> | <p>I can plan a course of action to obtain wanted results in challenges.</p> <p>I can propose multiple bridge decisions to consider before building.</p> <p>I can follow a plan making adjustments along the way to incorporate improvements.</p> | <p>Blocks</p> <p>Dominoes</p> <p>Popsicle Sticks and Clothes Pins</p> <p>Goobi Magnets</p> <p>Paper, tape, and paper clips</p> | <p>Measurement Heights</p> | <p>Vertical Height Contests</p> |

6th Grade Tech ED Curriculum

| Essential Questions/ Challenges | Standards | Learning Targets | Resources | Assessments | Lesson Ideas |
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| <p>Week 1: Design Thinking Activity: Using, wooden clothespins, binder clips and colored jumbo craft sticks, build a structure that can support the most possible weight.</p> <p>(Completed 1 day a week) Digital Citizenship <i>Lesson 1:</i> How do you judge the intentions and impact of people's words and actions online?</p> <p><i>Lesson 2:</i> How should you handle inappropriate online talk?</p> | <p>Measurement- M.UN.06.01 Convert between basic units of measurement within a single measurement system, e.g., square inches to square feet.</p> <p>Lesson 1: ISTE Standards: 2a, 2b, 5a, 5d</p> <p>Lesson 2: ISTE Standards 2a, 2b, 5a, 5b</p> | <p><u>Design Thinking Activity</u> <i>I can...</i></p> <ul style="list-style-type: none"> ● Collaborate with my group. ● Communicate with my group. ● Be creative. ● Use critical thinking skills. ● Use the design thinking process. <p><u>Digital Citizenship Lesson 1:</u> <i>I can...</i></p> <ul style="list-style-type: none"> ● reflect on what it means to be brave and stand up for others offline and online. ● learn to show empathy for those | <p>Digital Citizenship: https://www.common Sense.org/education/lesson/cyberbullying-be-upstanding-6-8</p> | <p>Exit Ticket each day- Sticky Note Activity pertaining to the Essential Question.</p> | |

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| <p>Lesson 3: What are the outcomes of presenting yourself in different ways online?</p> <p>Lesson 4: What is a digital footprint, and what does yours convey?</p> | <p>Lesson 3: ISTE Standards 1a, 1b, 4a, 4c, 4d, 5a</p> <p>Lesson 4: ISTE Standards: 1a-c, 2a-d</p> | <p>who have been cyberbullied.</p> <ul style="list-style-type: none"> ● generate multiple solutions for helping others when cyberbullying occurs. <p>Lesson 2: I can...</p> <ul style="list-style-type: none"> ● describe positive aspects of online talking and messaging. ● identify situations in which flirting and chatting become inappropriate and risky. ● understand rules for safe online messaging, and feel empowered to deal with uncomfortable situations when communicating online. <p>Lesson 3: I can...</p> <ul style="list-style-type: none"> ● reflect on the benefits and risks of | <p>https://www.common Sense.org/education/lesson/safe-online-talk-6-8</p> <p>https://www.common Sense.org/education/lesson/which-me-should-i-be-6-8</p> <p>https://www.common Sense.org/education/lesson/trillion-dollar-footprint-6-8</p> | | |
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presenting their identities in different ways online.

- evaluate – from an ethical point of view – the feelings, motivations, contexts, and possible outcomes associated with adopting different roles online.
- judge whether certain ways people present themselves online are harmless or harmful.

Lesson 4:

I can...

- learn that they have a digital footprint and that information from it can be searched; copied and passed on; seen by a large, invisible audience, and can be persistent.
- recognize that people's online

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| | | <p>information can be helpful or harmful to their reputation and image.</p> <ul style="list-style-type: none"> ● consider their own digital footprints and what they want those footprints to be like in the future. | | | |
| <p>Week 2 Design a shoe that will fit 1 member of your group. The shoe must come on and off.</p> | <p>Creative Sequence Design Thinking</p> | | | Present to the class. | |
| <p>Weeks 3 & 4 Design a product that will help kids enjoy Michigan winters.</p> | <p>Creative Sequence Design Thinking</p> | <p><i>I can...</i> Collaborate with a partner. Communicate with a partner. Use critical thinking skills. Be creative.</p> | <p>http://www.michigandesigncouncil.org/competition-information-and-application.html</p> | Showcase product day! | |
| <p>Weeks 5 & 6 EV3 Robotics Course</p> | <p>Area Perimeter Geometry Measurement-M.UN.06.01 Convert between basic</p> | <p><i>I can...</i> Collaborate with a partner. Communicate with a partner. Use critical thinking skills. Be creative.</p> | <p>https://docs.google.com/document/d/1-JYrh1n3RX3VS3b8BmjFhWEV5ealGv4Tamkfk2</p> | All completed challenges will be posted to the Robotics Schoology Course. | |

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| | units of measurement within a single measurement system, e.g., square inches to square feet. | Measure using inches and converting to feet. | 1TH4k/edit?usp=sharing | | |
| <u>Weeks 6 & 7</u> Design and engineer a tiny house for a client. | Area Perimeter Geometry Measurement - M.UN.06.01 Convert between basic units of measurement within a single measurement system, e.g., square inches to square feet. | <i>I can...</i> Collaborate with a partner. Communicate with a partner. Use critical thinking skills. Be creative. Measure using inches and converting to feet. | | Showcase house design day! | |

Typing will be completed as a warm up activity, each day, for 5 min.

I can...

- Become efficient in typing the 100 most common English words.

Typing Resource:

<https://typing.com/teacher/dashboard>

