

[3-4-5] STEM OVERVIEW

3rd Grade

4th Grade

5th Grade

COMPUTATIONAL THINKER: I can solve problems and think like a programmer.



Sequencing
Patterns/Loops
Variables
Conditionals
Game Design

Variables
Conditionals
Speed
Game Design

Variables
Coordinates
Speed
Game Design



Dash Robots respond to voice commands, navigate objects, dance, and sing. The Blockly app allows students to apply coding knowledge in a variety of scenarios

Education SPIKE™ Essential engages students in hands-on STEM investigations to learn computer science and design engineering concepts.

INNOVATIVE DESIGNER: I can think creatively to make something new.

Google Slides / Draw
Shapegram

Google Slides / Draw
Shapegram

Google Slides / Draw
Shapegram

Tinkercad
3D Printing

Tinkercad
3D Printing

DIGITAL CITIZEN: I can be respectful, responsible, and safe online.

Growing Online Responsibilities

Examine in person and online responsibilities & identify how our actions impacts others

Personal vs. Private Information

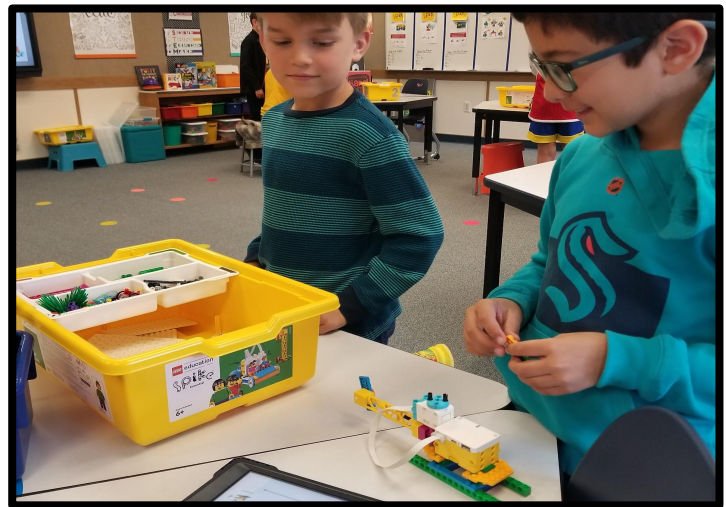
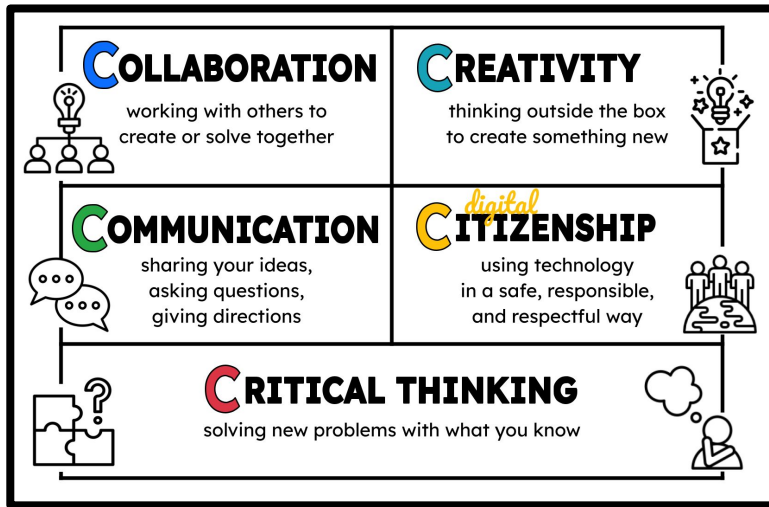
Learn to connect with others online in a safe way.

Cyberbullying - Identifying, preventing and reporting

Digital Friendships

Evaluate risk and benefits of online friendships

Cyberbullying - Identifying, preventing and reporting



STEM is about developing into lifelong learners and innovators. Whether we are building an algorithm in a coding activity, designing with shapes in 2D or 3D or thinking about how we interact in the digital world, we are growing our brain to think outside the box and imagine new ways to reach our goals.

Supporting STEM Learning from Home		
COMPUTATIONAL THINKER	INNOVATIVE DESIGNER	DIGITAL CITIZEN
Play board games with friends and family.	Draw designs for different things i.e. houses, cars, and toys	Practice asking before getting online and limiting time online
Plan a road trip and discuss the steps to make it happen	Take apart old unused electronics to explore the way they are built.	Discuss with family what information to share and not share online.
Prepare a meal following a new recipe	Look up blueprints and designs created by professionals	Talk about how to relate to other people online and the consequences for cyberbullying
Most importantly, encourage your kids to never stop asking questions and to embrace the learning that happens when mistakes are made. Foster an environment at home that values curiosity, exploration and a growth mindset.		

“Students need to be prepared for jobs that have not yet been created, for technologies that have not yet been invented, to solve problems that have not yet been anticipated.” - OECD ‘The Future of Education and Skills 2030