

Concept	Indicator	Indicator Statement	FIRST TECH CHALLENGE	FIRST ROBOTICS COMPETITION	FIRST TECH CHALLENGE Class Pack
Empowered Learner	9-12.EL.A.1	Actively assimilate and revise personal and career goals, select and manage current and emerging technologies to achieve them, and reflect on their successes and areas of improvement in working toward their goals.	-	x	X
	9-12.EL.B.1	Consistently engage in online social networks as a means to access and promote lifelong learning in collaboration with global peers.	X	x	-
	9-12.EL.C.1	Regularly revise their work habits and attitudes based on feedback from others and from functionalities embedded in digital tools to improve their learning process, and they select or creatively use technologies to share their learning in ways that are useful to others.	x	x	X
	9-12.EL.D.1	Successfully use a variety of existing technologies to develop criteria and identify new digital tools and resources from emerging technologies to accomplish a defined task with fluency and ease.	X	x	x
Digital Citizen	9-12.DC.A.1	Analyze their digital identities and reputations within school policy to consider social media's impact on society, including demonstrating an understanding of how digital actions may have positive or negative implications for their future.	-	-	-
	9-12.DC.B.1	Demonstrate and advocate for positive, safe, legal, and ethical habits when using technology and when interacting with others online.	X	x	x
	9-12.DC.B.2	Distinguish potential dangers while online (e.g., malicious actors, phishing, impersonation) to prevent, detect, and combat cybersecurity threats while practicing safe and secure techniques, tactics, and practices recognizing cybersecurity is everyone's responsibility.	-	-	X
	9-12.DC.C.1	Advocate and demonstrate a respect for intellectual property with both print and digital media—including copyright, permission and fair use—by creating a variety of media products that include appropriate citation and attribution elements.	X	x	x
	9-12.DC.D.1	Demonstrate an understanding of what personal data is and how to keep it private and secure, including the awareness of terms such as encryption, HTTPS, password strength, cookies, phishing, and computer viruses; understand the limitations of data management and how data-collection technologies work.	-	-	-
Knowledge Constructor	9-12.KC.A.1	Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	X	x	x

	9-12.KC.B.1	Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources in the school and career setting.	-	-	-
	9-12.KC.C.1	Curate information from digital resources, including online databases and catalogs, for research using a variety of tools and methods to create collections of artifacts that support their learning and career goals.	X	x	x
	9-12.KC.D.1	Explore real-world issues and problems through inquiry and analysis, develop ideas, actively create solutions for them, and evaluate and revise through the use of digital tools.	x	x	X
<b>Innovative Designer</b>	9-12.ID.A.1	Engage in a design process and employ it to inquire and analyze, generate ideas, create innovative products or solve authentic problems, and evaluate the process to revise if needed.	X	x	x
	9-12.ID.B.1	Creatively use digital tools to support a design process and expand their understanding to identify constraints, trade-offs, and to weigh risks.	x	x	X
	9-12.ID.C.1	Engage in a cyclical design process to inquire and analyze, develop ideas, test, and revise prototypes, presenting finished products and best practices learned during the development.	X	x	x
	9-12.ID.D.1	Demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.	x	x	X
<b>Computational Thinker</b>	9-12.CT.A.1	Define complex issues, create a plan, and select appropriate technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.	X	x	x
	9-12.CT.B.1	Evaluate created or given data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.	x	x	X
	9-12.CT.B.2	Evaluate and justify the formats for reporting results to a variety of audiences.	X	x	x
	9-12.CT.C.1	Collaborate to break problems into component parts, identify key pieces, and use that information to problem-solve.	x	x	X
	9-12.CT.C.2	Use 3D design tools to create prototypes, models, and simulations to demonstrate solutions and ideas.	X	x	x
	9-12.CT.D.1	Collaborate to develop an automated process by using algorithmic thinking to develop a sequence of steps to create and test automated solutions.	x	x	X
<b>Creative Communicator</b>	9-12.CC.A.1	Use digital learning tools and resources to identify communication needs considering goals, audience, content, access to tools or devices, and timing of communication, to involve teams in diverse locales for effective communication.	X	x	x
	9-12.CC.B.1	Create an original work using multiple digital tools, including planning, research, editing, and production.	x	x	X

	9-12.CC.C.1	Create digital graphic visualizations, data driven models, and simulations to succinctly communicate complex ideas and problems; justify methods and tools used.	X	x	x
	9-12.CC.D.1	Publish or present content designed for specific audiences using online meeting tools to asynchronous and synchronous audiences.	x	x	X
	9-12.GC.A.1	Use digital tools to interact with others to develop a richer understanding of different perspectives and cultures; publish electronic artifacts that communicate to a culturally diverse and global community.	X	x	x
<b>Global Collaborator</b>	9-12.GC.B.1	Use collaborative technologies (live and recorded) to connect with global stakeholders including peers, not excluding other languages, experts, and community members, to learn about issues and problems or to gain a broader perspective; develop multiple viewpoints that may be electronically published and accessible to all audiences.	x	x	X
	9-12.GC.C.1	Learn project management roles on a team to meet goals, based on their knowledge of technology and content, as well as personal preference; goals in project, timelines and milestones, will be monitored with tools and shared globally.	X	x	x
	9-12.GC.D.1	Select and justify the effective collaborative technologies (live video conference, online forums, social media and other emerging communication methods) to investigate, develop, and publish solutions related to local and global issues.	x	x	x
	9-12.GC.D.2	Understand that digital tools such as blogs and social media can be used to crowd source, crowd fund, and mobilize a community toward a goal.	X	x	x