Alabama CTE

STEM Technologies I

Scope of Technology SCOPE	1	**Describe the development of technology as a human activity that is the result of creatively meeting individual or collective needs.** SCOPE1
	2	**Explain the close link between technology and creativity and how it results in innovation.** SCOPE2
	3	**Describe technological systems, including input, processes, output, and feedback.** SCOPE3
	4	**Explain how technological systems can be connected to one another.** SCOPE4
	5	**Identify the difference between open loop and closed loop systems.** SCOPE5
Technology and Society SOCIETY	6	**Identify positive and negative ways the use of technology affects humans** SOCIETY6
	7	**Investigate the management of waste produced by technological systems as a societal issue.** SOCIETY7
	8	**Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from various products and systems** SOCIETY8
	9	**Describe the development of a technology from the demands, values, and interests of employers** SOCIETY9
	10	**Identify inventions and innovations that have evolved through slow and methodical processes of testing and refinement.** SOCIETY10
Design Process DES	11	**Utilize the design process to produce products and systems.** DES11
	12	**Identify the steps of an engineering design process.** DES12
	13	**Identify criteria and constraints in a design.** DES13
	14	**Describe how the design process is used to develop solutions for a problem.** DES14
	15	**Describe the importance of documentation and how it is used to communicate ideas.** DES15
		Model designs to transform ideas into practical solutions. DES16

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	17	**Obtain, evaluate, and share information to support the assertion that there is no perfect design.** DES17
	18	**Practice brainstorming as a group problem-solving design process in which each person in the group presents ideas in an open forum.** DES18
	19	**Identify two-dimensional and three-dimensional representations of the design solution** DES19
Digital Literacy LIT	20	**Describe the permanence of digital data and the importance of managing one's digital identity and reputation.** LIT20
	21	**Engage in positive, safe, legal, and ethical behaviors when using technology, including during social interactions online and when using networked devices.** LIT21
	22	**Identify research strategies to locate information and other resources for their intellectual and/or creative pursuits.** LIT22
	23	**Identify information from digital resources, using a variety of tools and methods to create a collection of artifacts that demonstrates meaningful connections or conclusions.** LIT23
	24	**Identify real-world issues, develop ideas, and pursue solutions to address the issues.** LIT24