

# STEM Technologies II

## Scope of Technology SCOPE

- 1 Investigate how technological systems can be connected to one another. SCOPE1
- 2 Explore different technologies that involve different sets of processes. SCOPE2
- 3 Gather and present information about ways corporations may create demand for a product by bringing it onto the market and advertising it. SCOPE3

## Technology and Society SOCIETY

- 4 Differentiate between positive and negative effects of technology usage on human beings, including their safety, comfort, choices, and attitudes about technology's development and use SOCIETY4
- 5 Analyze the management of waste produced by technological systems as a societal issue SOCIETY5
- 6 Research and communicate how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems. SOCIETY6
- 7 Identify ethical issues associated with the development and use of technology. SOCIETY7
- 8 Describe how social and cultural priorities and values are reflected in technological devices. SOCIETY8
- 9 Explain how meeting societal expectations can be a driving force behind the acceptance and use of products and systems. SOCIETY9

## Design Process DES

- 10 Design a plan to produce products and systems. DES10
- 11 Create criteria and constraints in a design. DES11
- 12 Use the design process to develop solutions for a problem DES12
- 13 Employ brainstorming in a group problem-solving setting where each person presents design process related ideas in an open forum as part of the design process. DES13
- 14 Model two-dimensional and three-dimensional solutions of a design. DES14
- 15 Test and modify designs to transform ideas into practical solutions DES15

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**16** Accurately identify different resources used in projects. **DES16**

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**17** Make a product or system to solve a problem and document the solution. **DES17**

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**Digital Literacy** **LIT**

**18** Create and maintain a digital identity and reputation, demonstrating an awareness of the permanence of one's actions in the digital world. **LIT18**

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**19** Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. **LIT19**

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**20** Manage their personal data to maintain digital privacy and security. **LIT20**

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**21** Create strategies to locate information and other resources for their intellectual or creative pursuits. **LIT21**

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**22** Generate ideas about real-world issues and problems and pursue answers and solutions to them. **LIT22**

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