

Exploring Technology 10

General Curriculum Outcomes

Students will be expected to

1. design, develop, evaluate, and articulate technological solutions
2. evaluate and manage technological systems
3. demonstrate an understanding of the history and evolution of technology, and of its social and cultural implications
4. demonstrate an understanding of current and evolving careers and of the influence of technology on the nature of work
5. demonstrate an understanding of their personal responsibility in determining the future.

Specific Curriculum Outcomes

Students will be expected to

Module 1: Introduction to Technology (mandatory outcomes)

- 1.1 identify technology in its various forms
- 1.2 demonstrate an understanding of the impacts of technology and its cultural and historical influences
- 1.3 demonstrate an understanding of the history and evolution of a specific area of technology
- 1.4 investigate strengths related to technological career options
- 1.5 demonstrate an ability to work in a team
- 1.6 solve technological problems using the modified problem-solving model
- 1.7 create design portfolios for solutions to each design problem
- 1.8 implement life-cycle analysis when designing and constructing solutions to technological problems
- 1.9 use a variety of materials and tools as part of solving technological problems
- 1.10 demonstrate safety rules for tools and machines used
- 1.11 demonstrate safe attitudes and practices in the laboratory
- 1.12 safely employ appropriate tools, machines, and equipment to solve technological problems

Choose three modules from the following five.

Module 2: Green Technology

- 2.1 examine the consequences of technology in global manufacturing systems
- 2.2 examine the consequences of technology in domestic use and consumption of energy
- 2.3 design and construct a model renewable energy system
- 2.4 manipulate and test a renewable energy system

Module 3: Media Technology

- 3.1 demonstrate an understanding of the principles of design
- 3.2 demonstrate an awareness of diverse target audiences
- 3.3 create solutions to design problems using a variety of communication media
- 3.4 demonstrate effective use of communications and design tools

Module 4: Control Technology

- 4.1 demonstrate an understanding of technological systems (input, process, output)
- 4.2 design and construct solutions to problems related to control technology
- 4.3 manipulate a variety of materials in the construction of a control system
- 4.4 test and evaluate a control system

Module 5: Engineering Technology

- 5.1 employ appropriate technical drawing techniques
- 5.2 design and construct solutions to real-world engineering technology problems
- 5.3 evaluate solutions to problems by selecting appropriate testing methods
- 5.4 demonstrate an understanding of various STEM (science, technology engineering, math) connections to design problems

Module 6: Exploring Trades and Technology

- 6.1 explore skilled trades and technology-related careers
- 6.2 demonstrate skills related to technological processes in skilled trades through a series of hands-on activities
- 6.3 use appropriate tools of skilled trades
- 6.4 estimate materials and labour requirements for a skilled trades-related project