

12th Grade Technology Studies Learning Outcomes

Sub unit 1: What is Technology?

- Recap definitions of technology
- Demonstrate how the development of technological knowledge and processes are functions of the setting
- Predict the impact of the exponential development and diffusion of technology
- Demonstrate the relationship among people, technology and the environment
- Interpret and evaluate the influence of technology throughout history, and predict its impact on the future
- Forecast the impact of technological products and systems for the year 2025 A.D.

Sub unit 2: What Does Technology Mean for the Future?

- Forecast intended and unintended consequences of technology deployment
- Debate the position that technology has been a powerful force in reshaping the social, cultural, political and economic landscape

Sub unit 3: Applications for Technology

- Identify communication needs, select appropriate communication tools and design collaborative interactive projects and activities to communicate with others, incorporating emerging technologies
- Create, publish and present information, utilizing formats appropriate to the content and audience

Sub unit 4: Analyzing Technology Trends

- Determine and apply an evaluative process to all information sources chosen for a project
- Apply a research process model to conduct research and meet information needs
- Identify and produce a product or system using a design process, evaluate the final solution and communicate the findings
- Recognize the role of teamwork in engineering design and of prototyping in the design process
- Understand and apply research, development and experimentation to problem-solving

Sub unit 5: Forecasting Technology Trends of 2025 A.D

- Forecast the ideal solution integrating technology to solve a future or existing problem in an area including but not limited to energy and power technologies, transportation technologies, manufacturing technologies, construction technologies, information and communication technologies, medical technologies and agricultural and related biotechnologies

- Showcase knowledge and creativity utilizing open source and web 2.0 technologies to demonstrate and display solutions

Sub unit 6: Evaluation

- Evaluate references, sources and materials
- Evaluate the relevancy of material discussed in each presentation
- Discuss the value of this information for future generations