

TRANSPORTATION TECHNOLOGY STANDARDS

HIGH SCHOOL

IDENTIFY HISTORICAL, SOCIAL, ECONOMIC, ENVIRONMENTAL, AND GOVERNMENT REGULATIONS IMPACT ON TRANSPORTATION TECHNOLOGY

- Demonstrate historical innovations in the evolution of transportation systems.
- Demonstrate how technological developments have changed how goods and people are transported.
- Predict the social, economic and environmental impacts of existing and evolving transportation technologies.
- Describe the importance of transportation systems to maintaining our quality of life.
- Explain how governmental regulations impact transportation.

DEFINE TRANSPORTATION TECHNOLOGY SYSTEMS

- Define and properly use common transportation technology terminology (e.g., combustion, pathways, velocity, vehicle, mode, payload, and terminal).
- Demonstrate and apply how propulsion, control, guidance, payload, and support systems for various land, water, space, air, and materials handling systems are used in transportation technologies.
- Demonstrate and apply basic applications for transportation technology (e.g., moving people, transporting goods, and recreation) and generate examples of each.
- Design, build and evaluate a simple fixed path or variable path transportation system.
- Solve a simple transportation problem by designing, building, and testing a vehicle that will carry a payload a specified distance.
- Describe and give examples on how transportation plays a vital role of other technologies including but not limited to manufacturing, construction, communications, health and safety and agriculture.
- Identify, design and apply the uses of different energy and power technologies.
- Use design-based learning approaches that intentionally integrate the content and process of science and/or mathematics education with the content and process of technology and/or engineering education.