Oklahoma Technology Education

Grades 6, 7, 8, 9, 10

Adopted 2002

The student will define the characteristics and scope of technology in our world today.	1. Examine the evolution, application and significance of modern technology and its impact on our lives in the twenty-first century. 2. Identify the effects and reasons for commercialization of technology.
The student will identify the core concepts of technology systems, resources and processes including optimization and trade-off concepts.	2: The student will identify the core concepts of technology systems, resources and processes including optimization and trade-off concepts.
The student will identify and describe the importance of technology and the relationships between and among technology and other fields.	1. Recognize and describe technology transfer from one product to another. 2. Recognize and describe inventions and innovations shared across new technologies.
The student will identify and differentiate the cultural, social, economic and political effects of technology.	1. Determine the impact and consequences of technology. 2. Identify and describe the rapid or gradual changes in technology and the related effects.
The student will recognize the effects of technology on the environment.	1. Describe technologies used to repair damage in the environment. 2. Examine ways to reduce resource use through technology. 3. Identify practices available for monitoring the environment to provide feedback for decisions.
The student will determine the connection between technological demands, values and interests of society and the impact	6: The student will determine the connection between technological demands, values and interests of society and the impact of these on the environment.

of these on the environment.	
The student will identify the history and evolution of technology techniques, measurements and resources.	7: The student will identify the history and evolution of technology techniques, measurements and resources.
The student will apply the technology design process to create useful products and systems.	1. Identify criteria required to determine an effective technology design process. 2. Apply reasoning, problem solving, imagining, creating and constructing design and technology tools.
The student will describe technological advances that enhance science and mathematics and describe how science and mathematics advance technology.	9: The student will describe technological advances that enhance science and mathematics and describe how science and mathematics advance technology.
The student will apply problem-solving and critical thinking techniques for troubleshooting, research and development, invention and innovation and experimentation and implement these strategies as a multidisciplinary approach.	10: The student will apply problem-solving and critical thinking techniques for troubleshooting, research and development, invention and innovation and experimentation and implement these strategies as a multidisciplinary approach.
The student will apply creativity in developing technology products and systems.	1. Create a model to explain a solution to a problem. 2. Test and evaluate a design for improvement. 3. Identify quality controls necessary in a technology product or system process.
The student will apply safe and proper use of tools, machines,	12: The student will apply safe and proper use of tools, machines, materials, processes and technical concepts.

materials, processes and technical concepts.	
The student will assess the impact of technology on products and systems.	1. Design and use instruments to collect data for a product. 2. Use collected data to find trends and assist in technological development. 3. Interpret and evaluate accuracy of information to determine its usefulness. 4. Synthesize data to draw conclusions regarding the effects of technology. 5. Design forecasting techniques to evaluate results of altering natural resources.
The student will identify and describe advances and innovation in the energy-power, biotechnology, communications, transportation, manufacturing, construction, and agriculture techniques used to improve each field.	14: The student will identify and describe advances and innovation in the energy-power, biotechnology, communications, transportation, manufacturing, construction, and agriculture techniques used to improve each field.
The student will identify and describe energy-power, biotechnology, communications, transportation, manufacturing, construction, and agriculture technology principles necessary to create products and processes.	15: The student will identify and describe energy-power, biotechnology, communications, transportation, manufacturing, construction, and agriculture technology principles necessary to create products and processes.
The student will identify and define how energy-power, biotechnology, communications, transportation, manufacturing, construction, and agriculture technologies apply to various occupational clusters.	16: The student will identify and define how energy-power, biotechnology, communications, transportation, manufacturing, construction, and agriculture technologies apply to various occupational clusters.

The student will identify how technology systems are affected by energy-power, biotechnology, communications, transportation, manufacturing, construction, and agriculture.	**1. Apply energy-power, biotechnology, communication, transportation, manufacturing, construction, and agriculture systems and subsystems to a model.** **2. Recognize and define the purpose and uses for information skills as it relates to energy-power, biotechnology, communication, transportation, manufacturing, construction, and agriculture technologies.**
The student will develop leadership, positive self-concepts, and individual potential in a technological society.	**18: The student will develop leadership, positive self-concepts, and individual potential in a technological society.**
The student will explore the organization and management systems of business and industry.	**19: The student will explore the organization and management systems of business and industry.**
The student will explore career opportunities to determine occupational and educational choices.	**1. Examine opportunities related to specific occupations (e.g. career search software, field trips, guest speakers and hands-on activities dealing with lasers, medical, technology, fiber-optics, robotics, biotechnology, computer-aided drafting, electronics, engineering, computer literacy, microwave systems, and other technology systems.)** **2. Examine educational opportunities related to future careers (e.g. additional career technology classes at the secondary level in the comprehensive high school and area career technology centers, junior or four-year universities, postsecondary technical institutes, five-and six-year universities, military training, private sector training, and others.)**