Connecticut CTE

# Nature of Technology (6-8)

Nature of Technology | Nature of Technology NT

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a Recognize the nature, characteristics and scope of technology. NT.01

1 Explain that new products and systems can be developed to solve problems or to help do things that could not be done without the help of technology. NT.01.01

2 Explain that technology is closely aligned to creativity, which has resulted in innovation. NT.01.02

3 Describe how new technologies (products and systems) are developed to solve problems. NT.01.03

4 Recognize and explain that creativity is the basis for the development of products and systems. NT.01.04

5 Explain that technology is a powerful force that improves human productivity. NT.01.05

6 Recognize and explain that technology is a process for transforming raw materials into useful goods and services. NT.01.06

7 Explain that technology is evident in every culture, regardless of its level of sophistication or stage of development. NT.01.07

8 Recognize and explain that technology involves inventing new things and modifying the old ones to make them more efficient. NT.01.08

9 Describe technology as a process for transforming raw materials into useful goods and services. NT.01.09

10 Explain that new products and systems can be developed to solve problems or to help do things that could not be done without the help of technology. NT.01.10

11 Explain that technology is closely linked to creativity, which has resulted in innovation. NT.01.11

12 Explain that technological innovation is driven by the profit motive. NT.01.12

13 Explain that technology creates new economic opportunities and social benefits and, at the same time, produces new social problems. NT.01.13

14 Describe how and why people use technology to modify their natural environment and the impact of those modifications. NT.01.14

15 Explain that technology incorporates human knowledge into physical hardware that will eventually respond to some human need or desire. NT.01.15

16 Explain that new products and systems can be developed to solve problems or to help do things that could not be done without the help of technology. NT.01.16

17 Explain that corporations can often create demand for a product by bringing it onto the market and advertising it. NT.01.17

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b Demonstrate an understanding of the core concepts of technology. NT.02

1 Explain a technological system by identifying its parts (inputs, processes, output and feedback) NT.02.01

2 Differentiate between the systems found in nature vs. human made technological systems. NT.02.02

3 Show evidence of how parts relate to each other through systems thinking. NT.02.03

4 Differentiate between an open and closed system. NT.02.04

5 Explain the benefits and consequences of and technological innovation. NT.02.05

6 Explain that a trade-off is a decision process recognizing the need for careful compromises among competing factors. NT.02.06

7 Define the parameters of a product. NT.02.07

8 Define the processes used to complete a system. NT.02.08

9 Evaluate the importance of maintenance on a system ensure proper functioning, extending life and upgrading capability. NT.02.09

c Define and explain the relationships among technologies and the connections between technology and other fields of study. NT.03

1 Illustrate how technology systems often interact with each other. NT.03.01

2 Demonstrate how technological systems are combined to create more complex systems. NT.03.02

3 Implement knowledge from other fields of study and show effect on the development of technological products and systems. NT.03.03

4 Describe how technological ideas are sometimes protected through the process of patenting. NT.03.04