Core High School Science, Technology, Environment, and Society
Standards, Supporting Skills, and Examples

Indicator 1: Analyze various implications/effects of scientific advancement within the environment and society.

Bloom's Taxonomy Level	Standard, Supporting Skills, and Examples
(Application)	**9-12.S.1.1. Students are able to explain ethical roles and responsibilities of scientists and scientific research.** **Examples:** Sharing of data Accuracy of data Acknowledgement of sources Following laws Animal research Human research Managing hazardous materials and wastes
(Evaluation)	**9-12.S.1.2. Students are able to evaluate and describe the impact of scientific discoveries on historical events and social, economic, and ethical issues.** **Examples**: cloning, stem cells, gene splicing, nuclear power, patenting new life forms, emerging diseases, AIDS, resistant forms of bacteria, biological and chemical weapons, global warming, and alternative fuels

Indicator 2: Analyze the relationships/interactions among science, technology, environment, and society.

Bloom's Taxonomy Level	Standard, Supporting Skills, and Examples
(Evaluation)	**9-12.S.2.1. Students are able to describe immediate and long-term consequences of potential solutions for technological issues.** **Examples**: environmental, communication, internet, entertainment, construction, manufacturing, power and transportation, energy sources, health technology, and biotechnology issues • Describe how the pertinent technological system operates. Example: waste management facility

(Analysis)	**9-12.S.2.2. Students are able to analyze factors that could limit technological design**. **Examples**: ethics, environmental impact, manufacturing processes, operation, maintenance, replacement, disposal, and liability
(Synthesis)	**9-12.S.2.3. Students are able to analyze and describe the benefits, limitations, cost, and consequences involved in using, conserving, or recycling resources.** **Examples**: mining, agriculture, medicine, school science labs, forestry, energy, disposable diapers, computers, tires

Core High School Science Technology, Environment, and Society
Performance Descriptors

Advanced	**High school students performing at the advanced level:** • modify a technology taking into consideration limiting factors of design; • given a narrative of a scientific discovery, defend a position on the impact of the ethical issues.
Proficient	**High school students performing at the proficient level:** • given a narrative of a scientific discovery, identify and evaluate the immediate and long-term consequences of scientific issues; • identify and explain ethical roles and responsibilities of scientists conducting a given research project.; • evaluate factors that could limit technological design; • given a narrative description of a resource, analyze and describe the benefits, limitations, cost, and consequences involved in its use, conservation, or recycling.
Basic	**High school students performing at the basic level:** • given a narrative of a scientific discovery, identify the immediate consequences of scientific issues; • identify ethical roles and responsibilities concerning a given research project; • identify factors that could limit technological design; • given a narrative description of a resource, describe a benefit and limitation involved in its use, conservation, or recycling.

Core High School Science Technology, Environment, and Society
ELL Performance Descriptors

Proficient	**High school ELL students performing at the proficient level:** • identify the immediate consequences of scientific issues; • identify ethical roles and responsibilities concerning a given research project; • identify factors that could limit technological design; • given a narrative description of a resource, describe a benefit and limitation involved in its use, conservation, or recycling.
Intermediate	**High school ELL students performing at the intermediate level:** • identify the consequences of scientific issues; • identify ethical roles and responsibilities in scientific investigations; • identify a factor that could limit technological design; • given a narrative description of a resource, describe a benefit and limitation involved in its use.
Basic	**High school ELL students performing at the basic level:** • identify scientific issues; • identify that ethical issues exist in scientific research; • identify technological design; • define conservation and recycling.
Emergent	**High school ELL students performing at the emergent level:** • use correct pronunciation of science words; • use non-verbal communication to express scientific ideas.
Pre-emergent	**High school ELL students performing at the pre-emergent level:** • observe and model appropriate cultural and learning behaviors from peers and adults; • listen to and observe comprehensible instruction and communicate understanding non-verbally.