9-12 Science Technology
Learning Targets

(Application) 9-12.S.1.1. Students are able to explain ethical roles and responsibilities of scientists and scientific research.

I can give reasons for (explain):
- behavioral standards in the conduct of scientific inquiry involving the sharing and accuracy of data, acknowledgement of sources and following applicable laws (ethical roles and responsibilities of scientists)
- consideration of ethical issues involving animal and human subjects and dealing with the management of hazardous materials and wastes (ethical roles and responsibilities of scientific research).

(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.

I can judge the value of (evaluate) and tell in words or numbers (describe) changes caused by findings based on experiments (impact of scientific discoveries) on
- things that happened in the past (historical events)
- how people live and interact (social issues)
- ways people trade goods and services (economic issues)
- what is considered to be right or wrong (ethical issues).

(Evaluation) 9-12.S.2.1. Students are able to describe immediate and long-term consequences of potential solutions for technological issues.

I can tell in words or numbers (describe) the immediate and long-term consequences of possible corrections (potential solutions) for problems related to applications in science (technological issues).

(Analysis) 9-12.S.2.2. Students are able to analyze factors that could limit technological design.

I can separate into parts (analyze) how environmental problems, expenses, manufacturing processes, and ethical issues (factors) could limit making products by applying scientific principles (technological design).

(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.

I can separate into parts (analyze) and tell in words or numbers (describe) the benefits, limitations and consequences involved in using, conserving and recycling materials taken from the earth such as minerals, trees, and fuels (resources).