

SCIENCE STANDARD:

③ Science, Technology and Personal Life

“All Alaska students will demonstrate the ability to apply scientific knowledge and inquiry skills in their lives and to make reasoned decisions about the application of science and technology.”

Rationale:

Science and technology present Alaskans with critical choices. New processes and products can prolong life, affect the daily routine and allow the development of new products. However, many of the products of science and new technologies have costs and effects that may put life at risk, change social relations, or disrupt existing culture. Citizens must understand the consequences of choice and be able to weigh economic, environmental and social costs.

Key Elements: All students will:

- * Apply scientific knowledge and process to reach an understanding of the nature of everyday phenomena.
- * Identify problems arising from everyday life that are capable of study using a scientific approach.
- * Understand interaction among science, technology and society as it relates to personal life, community and the world.
- * Understand that technologies may have both short and long term anticipated and unanticipated consequences including significant health, safety and environmental effects.
- * Recognize and respect their own values and appreciate the rights of others to hold different values related to technological choices.
- * Make use of knowledge from other disciplines to understand the impact of science and technology.
- * Examine the economic, environmental, and social consequences of the introduction and limitation of technologies.
- * Generate potential solutions based on knowledge of science, inquiry skills, and the development and application of technologies.
- * Evaluate the scientific, ethical, and social merits of alternative solutions to substantiate personal beliefs and decisions.
- * Participate in reasoned discourse and debate over public policy affecting science and technology.
- * Take action to implement reasoned decisions and evaluate the effectiveness of the action.
- * Identify roles and responsibilities of people holding jobs in the fields of science and technology.