Environment and Ecology Standards

4.1 Watersheds and Wetlands

Grade 10

C. Describe the physical characteristics of a stream and determine the types of organisms found in aquatic environments

E. Identify and describe natural and human events on watersheds and wetlands.

Grade 12

C. Analyze the parameters of a watershed.

E. Evaluate the trade-offs, costs, and benefits of conserving watersheds and wetlands.

4.2 Renewable and Nonrenewable Resources

Grade 10

A. Explain that renewable and nonrenewable resources supply energy and materials.

B. Evaluate factors affecting availability of natural resources.

C. Analyze how man-made systems have impacted the management and distribution of natural resources**.**

Grade 12

A. Analyze the use of renewable and nonrenewable resources.

4.3 Environmental Health

Grade 10

B. Explain how multiple variables determine the effects of pollution on environmental health, natural processes, and human practices.

C. Explain biological diversity as an indicator of a healthy environment.

Grade 12

B. Analyze the local, regional and national impacts of environmental health.

4.7 Threatened, Endangered and Extinct Species

Grade 10

C. Identify and explain why adaptations can lead to specialization.

Grade 12

C. Analyze the effects of threatened, endangered or extinct species on human and natural systems.

4.8 Humans and the Environment

Grade 10

B. Analyze the relationship between the use of natural resources and sustaining our society.

C. Analyze how human activities may cause changes in an ecosystem.

Grade 12

A. Explain how technology has influenced the sustainability of natural resources over time.

B. Analyze technology’s role on natural resource sustainability.

4.9 Environmental Laws and Regulations

Grade 10

A. Explain why environmental laws and regulations are developed and enacted.

Science and Technology Standards

3.2 Inquiry and Design

Grade 10

D. Identify and apply the technological design process to solve problems.

Grade 12

D. Analyze and use the technological design process to solve problems.

3.5 Earth Sciences

Grade 10

D. Assess the value of water as a resource.

Grade 12

B. Analyze the availability, location, and extraction of earth resources.

D. Analyze the principles and history of hydrology.

3.8 Science, Technology, and Human Endeavors

Grades 10 and 12

B. Analyze how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.

C. Evaluate possibilities, consequences, and impacts of scientific and technological solutions.

Reading, Writing, Speaking, and Listening Standards

1.2 Reading Critically in All Content Areas

Grades 8 and 11

A. Read and understand essential content of informational texts and documents in all academic areas.

1.4 Types of Writing

Grades 8 and 11

C. Write persuasive pieces.

1.5 Quality of Writing

Grades 8 and 11

A. Write with a sharp, distinct focus.

B. Write using well-developed content appropriate for the topic.

C. Write with controlled and/or subtle organization.

1.6 Speaking and Listening

Grades 8 and 11

A. Listen to others.

D. Contribute to discussions.

E. Participate in small and large group discussions and presentations.

F. Use media for learning purposes.

1.8 Research

Grades 8 and 11

A. Select and refine a topic for research.

B. Locate information using appropriate sources and strategies.

C. Organize, summarize and present the main ideas from research.