Title: Arctic Environment

Subject: Science

Grade Level: 7th

Big Ideas: Arctic Environment

National Standards:

State Standards: (10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:

(A) observe and describe how different environments, including microhabitats ……

(B) describe how biodiversity contributes to the sustainability of an ecosystem; ….

(C) observe, record, and describe the role of ecological succession such as in a microhabitat …

(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:

(A) examine organisms or their structures …

(B) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival ….

Title: Ocean Systems

Subject: Science

Grade Level: 8th

Big Ideas: Ocean Systems

National Standards:

State Standards: (10) Earth and space. The student knows that climatic interactions exist among Earth, ocean, and weather systems. The student is expected to:

(A) recognize that the Sun provides the energy that drives convection within the atmosphere and oceans, producing winds and ocean currents;

 (C) identify the role of the oceans in the formation of weather systems ….

(11) Organisms and environments. The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems. The student is expected to:

(A) describe producer/consumer, predator/prey, and parasite/host relationships as they occur in food webs within marine…… ecosystems;

(B) investigate how organisms and populations in an ecosystem depend on and may compete for biotic and abiotic …..

(C) explore how short- and long-term environmental changes affect organisms and traits in subsequent populations; and

(D) recognize human dependence on ocean systems and explain how human activities ….have modified these systems.