**3-LS4 Biological Evolution: Unity and Diversity**

**3-LS4-1 Analyze and interpret data from fossils to provide evidence of the organisms and environments in which they lived long ago.**

Further Explanation: Examples of data could include type, size, and distributions of fossil organisms. Examples of fossils and environments could include marine fossils found on dry land, tropical plant fossils found in Arctic areas, and fossils of extinct organisms.

Analyzing and Interpreting Data, Evidence of Common Ancestry and Diversity, Scale, Proportion, and Quantity

**3-LS4-2 Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.**

Further Explanation: Examples of cause and effect relationships could be plants that have larger thorns than other plants may be less likely to be eaten by predators and animals that have better camouflage coloration than other animals may be more likely to survive and therefore more likely to leave offspring such as yellow spotted salamanders and newts.

Constructing Explanations an Designing Solutions, Natural Selection, Cause and Effect

**3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.**

Further Explanation: Examples of evidence could include needs and characteristics of the organisms (such as loons) and habitats involved. The organisms and their habitats make up a system in which the parts depend on each other. Potential Maine connections include the introduction of Pike and Bass into areas that are non-native to the species and their impact on native trout and other native species.

Engaging in Argument from Evidence, Inheritance of Traits, Variation of Traits, Scale, Proportion, and Quantity, Cause and Effect

**3-LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.**

Further Explanation: Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms. Lobster migrate as a result of water temperature, Cod follow prey fish (Mackerel), Atlantic Salmon start life in streams and migrate to saltwater.

Engaging in Argument from Evidence, Biodiversity and Humans, Ecosystem Dynamics, Functioning, and Resilience, Systems and System Models