



Priority Standards

Marine Biology – Grades 10-12

Olathe North Only

Below is a table of the priority standards.

Priority Standards	Description
415.Sc.E.I.1	Conduct laboratory investigations related to each major theme of marine biology.
415.Sc.E.I.2	Explain and demonstrate understanding of the usage of scientific tools and data collection techniques in the ocean sciences.
415.Sc.E.I.3	Actively engages in investigations, including developing questions, gathering and analyzing data, and designing & conducting research.
415.Sc.E.K.1	Demonstrates an understanding of the history of science.
415.Sc.E.K.2	Evaluate characteristics of the early oceans to identify possible habitats.
415.Sc.E.K.3	Understands biological evolution, descent with modification, is a scientific explanation for the history of the diversification of organisms from common ancestors.
415.Sc.E.K.4	Understands organisms vary widely within and between populations. Variation allows for natural selection to occur.
415.Sc.E.K.5	Understands the primary mechanism acting on variation is natural selection.
415.Sc.E.K.6	Understands geological time is used to understand the earth's past.
415.Sc.E.K.7	Understands the sun is the primary source of energy for life through the process of photosynthesis.
415.Sc.E.K.8	Understands matter has energy. Mass and energy can be interchanged. The total energy in the universe is constant, but the type of energy may vary.
415.Sc.E.K.9	Understands some plant cells contain chloroplasts, which are the sites of photosynthesis.
415.Sc.E.K.10	Understands atoms and molecules on the earth cycle among the living and nonliving components of the biosphere.
415.Sc.E.A.1	Analyze the influence of the properties of water in determining the composition of seawater.
415.Sc.E.K.11	Understands most multicellular animals have nervous systems that underlie behavior.
415.Sc.E.K.12	Understands differences in structure and function among organisms and can identify the characteristics of relevant life forms.
415.Sc.E.K.13	Understands taxonomy is the systematic way in which organism are placed into

Priority Standards	Description
	a hierarchical classification system, according to their physical and genetic characteristics and their evolutionary history.
415.Sc.E.K.14	Understands animals have behavioral responses to internal changes and to external stimuli.
415.Sc.E.K.15	Understands populations have limits to growth.
415.Sc.E.K.16	Understands geological time is used to understand the earth's past.
415.Sc.E.K.17	Understands constructive and destructive processes, including weathering, erosion, and deposition dynamically reshape the surface of the earth.
415.Sc.E.K.18	Understands processes leading to coastal change.
415.Sc.E.K.19	Understands human beings live in and impact ecosystems.
415.Sc.E.K.20	Understands natural resources from the lithosphere and ecosystems are required to sustain human populations.
415.Sc.E.K.21	Understands earth does not have infinite resources.
415.Sc.E.K.22	Understands technology is the application of scientific knowledge for functional purpose.
415.Sc.E.A.2	Understands progress in science and technology can be affected by social issues and challenges.
415.Sc.E.A.3	Understands human beings live within and impact ecosystems.
415.Sc.E.A.4	Understands natural resources from the lithosphere and ecosystems are required to sustain human populations.
415.Sc.E.A.5	Recognizes society's role in supporting topics of research and determining institutions where research is conducted.