7th - science standards

Code	Description
3a	Students know both genetic variation and environmental factors are causes of evolution and diversity of organisms.
3b	Students know the reasoning used by Charles Darwin in reaching his conclusion that natural selection is the mechanism of evolution.
3c	Students know how independent lines of evidence from geology, fossils, and comparative anatomy provide the bases for the theory of evolution
3d	Students know how to construct a simple branching diagram to classify living groups of organisms by shared derived characteristics and how to expand the diagram to include fossil organisms.
4a	Students know Earth processes today are similar to those that occurred in the past and slow geologic processes have large cumulative effects over long periods of time.
4b	Students know the history of life on Earth has been disrupted by major catastrophic events, such as major volcanic eruptions or the impacts of asteroids.
4c	Students know that the rock cycle includes the formation of new sediment and rocks and that rocks are often found in layers, with the oldest generally on the bottom
4d	. Students know that evidence from geologic layers and radioactive dating indicates Earth is approximately 4.6 billion years old and that life on this planet has existed for more than 3 billion years.
4e	Students know fossils provide evidence of how life and environmental conditions have changed.
4f	Students know how movements of Earth's continental and oceanic plates through time, with associated changes in climate and geographic connections, have affected the past and present distribution of organisms.
4g	Students know how to explain significant developments and extinctions of plant and animal life on the geologic time scale.
5g	Students know how to relate the structures of the eye and ear to their functions.
6d	Simple lenses are used in a magnifying glass, the eye, a camera, a telescope, and a microscope.
6e	White light is a mixture of many wavelengths (colors) and retinal cells react differently to different wavelengths.
7a	Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.
7b	Use a variety of print and electronic resources (including the World Wide Web) to collect information and evidence as part of a research project
7c	Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.
7d	Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth's plates and cell structure).
7e	Communicate the steps and results from an investigation in written reports and oral presentations.