

Three-Dimensional Learning in the Amplify Science 8th Grade Course

The Amplify Science Grade 8 Course includes 6 units that support students in meeting the NGSS. The following unit summaries demonstrate how students engage in three-dimensional learning to solve real-world questions and problems.

Force and Motion: As student physicists at the fictional Universal Space Agency, students must analyze what went wrong in a space station docking failure. To do so, they need to apply what they learn about forces, changes in motion, and collisions.

Magnetic Fields: In their role as student physicists, students must analyze why the new magnet-driven space jet launcher is not working as expected. They apply ideas about non-touching forces and potential energy.

Light Waves: In their role as spectroscopists, students learn about light waves and how they interact with matter, and apply this knowledge to investigate Australia's elevated skin cancer rate.

Earth, Moon, and Sun: Students play the role of student astronomers who must learn about the Earth, Moon, Sun system, including phases and eclipses, in order to advise an astrophotographer who is photographing Moon features.

Natural Selection: In the role of biologists, students investigate how a population of rough-skinned newts in Oregon State Park become incredibly poisonous. They learn about variation, adaptation, and the mechanism of natural selection.

Evolutionary History: As biomedical engineering interns, students apply what they have learned about natural selection as well as engineering and design concepts to develop, test, and refine treatments for drug-resistant malaria.