

EKHS Earth & Space Science Syllabus

Unit 1 - Introduction to Earth & Space - Earths Past Extinctions

- Students will be able to define extinction events, site past examples & their causes. Students will use this data to compare past causes with current trends.

Unit 2 - Earth in the Solar System - Asteroid Impacts

- Students will be able to compare and contrast the composition of the earth to that of celestial bodies. Students will be able to accurately calculate the orbit of certain celestial bodies. Students will use evidence to predict the outcome of an asteroid impact based on past events.

Unit 3 - Space - Our Sun Goes Out or Explodes

- Students will be able to explain the life cycle of stars, apply this to our Sun and make a prediction of how its life cycle will impact the inhabitants of earth.

Unit 4 - Natural Resources - Alien Invasions

- Students can explain how limited resources drive migration & apply the causes for alien migration to those of human migration, & make predictions on how a large influx in population will affect ecosystems.

Unit 5 - Water - Water World

- Students will plot current ice melt & compare it to past ice melt. Students will create & use models to predict ice melt trends and make predictions on how sea level rise due to global climate change will impact earth's ecosystems, currents, & feedback systems.

Unit 6 - Plate Tectonics & Earth's Changing surface

Super Volcano

- Students can explain how plate tectonics leads to the formation of mountain ranges & volcanoes. Students can identify the type of volcano based on its formation & composition, & make predictions on the type of flow & eruption will be created by particular volcanoes based on past eruptions. Students can also explain the geological significance of Yellowstone's geothermal activity.

Mega Quake

- Students can explain how plate tectonics work, examine plate tectonics on other planets & explain plate tectonics' role in Earth's natural systems. Students can accurately identify the severity of an earthquake & engineer a solution to prevent earthquake damage to a structure.