

Earth Science 500 curriculum map

Unit 1: Introduction to Earth Science

- Introduction to Earth's spheres and systems
- Earth's structure and composition
- Rock cycle and geological processes
- Plate tectonics and continental drift

Unit 2: Earth's Atmosphere

- Composition and layers of the atmosphere
- Weather and climate
- Atmospheric circulation and global winds
- Climate change and its impact

Unit 3: Earth's Hydrosphere

- Properties and distribution of water on Earth
- The water cycle and its importance
- Oceans and ocean currents
- Freshwater systems and their significance

Unit 4: Earth's Geology

- Geologic time and dating methods
- Fossils and evolution
- Earth's history and major geological events
- Minerals and rocks

Unit 5: Earth's Weathering, Erosion, and Landforms

- Weathering and erosion processes
- Agents of erosion (wind, water, glaciers)
- Landforms created by erosion (valleys, canyons, caves)
- Landforms created by deposition (deltas, beaches, sand dunes)

Unit 6: Earth's Astronomy

- Solar system and celestial bodies
- Earth's moon and its phases
- Stars, galaxies, and the universe
- Space exploration and discoveries

Unit 7: Earth's Environmental Science

- Human impact on the environment
- Conservation and sustainability
- Pollution and its effects
- Environmental policies and regulations

Unit 8: Earth's Natural Disasters

- Volcanoes and volcanic eruptions
- Earthquakes and seismic activity
- Tsunamis and their causes
- Hurricanes, tornadoes, and severe weather events

Unit 9: Earth's Resources

- Renewable and non-renewable resources
- Energy sources and their impact
- Mining and extraction processes
- Sustainable resource management

Unit 10: Earth's Climate and Climate Change

- Climate patterns and climate zones
- Factors influencing climate
- Evidence and causes of climate change
- Mitigation and adaptation strategies