

Department: Science

Course Title: HONORS EARTH SCIENCE

Course #: 503

DESCRIPTION OF COURSE: (Grade 9) (1 Credit) (Prerequisite: none)

Honors Earth Science students are exposed to academic experiences providing them with a higher-level understanding of the earth and environment. Topics covered include physical geology; ecology; the environment and the impact of human activities; conservation of resources; as well as meteorology and climate. Examples of projects might include analysis of an ecosystem, research on local environmental concerns, testing and identifying rock and mineral samples, or plotting weather systems. Students will demonstrate their achievement through tests, quizzes, homework, laboratory investigations and projects.

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ASSESSMENT ANCHORS
1. <i>Earth and the Biosphere</i> (Ecology, Energy Transfer, Biogeochemical Cycles)	1-2 weeks	3.3.10.A.1.; 3.3.10.A.4.; 4.1.3.A.; 4.1.4.A., 4.1.5.A., 4.1.7.A., 4.1.10.A., 4.1.12.A.; 4.1.4.B., 4.1.7.B., 4.1.10.B.; 4.1.3.C., 4.1.4.C., 4.1.5.C., 4.1.7.C., 4.1.10.C., 4.1.12.C.
2. <i>Ecosystems and Communities</i> (Community Interactions, Succession, Climate and Biomes)	1 week	3.3.10.A.1.; 3.3.10.A.4.; 4.1.3.A., 4.1.4.A., 4.1.5.A., 4.1.7.A., 4.1.10.A., 4.1.12.A.; 4.1.3.C., 4.1.4.C., 4.1.5.C., 4.1.7.C., 4.1.10.C., 4.1.12.C.; 4.1.3.E., 4.1.7.E., 4.1.10.E.
3. <i>Aquatic Ecosystems/Wetlands</i>	1 week	3.3.10.A.1.; 3.3.10.A.4.; 4.1.3.A., 4.1.4.A., 4.1.5.A., 4.1.7.A., 4.1.10.A., 4.1.12.A.; 4.2.3.B., 4.2.4.B., 4.2.5.B., 4.2.6.B., 4.2.7.B., 4.2.8.B., 4.2.10.B., 4.2.12.B.; 4.2.4.C., 4.2.5.C., 4.2.10.C., 4.2.12.C.
4. <i>Population Dynamics and Biodiversity</i>	1-2 weeks	4.1.3.A., 4.1.4.A., 4.1.5.A., 4.1.7.A., 4.1.10.A., 4.1.12.A., 4.5.7.B., 4.5.10.B., 4.5.12.B.
5. <i>Weathering and Soil</i>	2 weeks	3.3.10.A.1.; 4.4.6.A., 4.4.7.A., 4.4.10.A., 4.4.12.A.; 4.4.6.B., 4.4.7.B., 4.4.10.B., 4.4.12.B.; 4.4.3.C., 4.4.5.C.
6. <i>Water: Surface and Ground</i>	2 weeks	3.3.10.A.5.; 4.2.4.A., 4.2.5.A., 4.2.7.A., 4.2.8.A., 4.2.10.A., 4.2.12.A.
7. <i>Natural Resources</i> (Minerals, Rocks, Energy, Resources, Waste Management)	3 weeks	3.3.10.A.1, 3.3.10.A.2, 4.3.7.A., 4.3.8.A., 4.3.10.A., 4.3.12.A., 4.3.7.B., 4.3.10.B., 4.3.12.B., 4.5.3.D., 4.5.4.D., 4.5.5.D., 4.5.6.D., 4.5.10.D.
8. <i>Plate Tectonics</i> (Mountains, Earthquakes, Volcanoes)	3 weeks	3.3.10.A1.
9. <i>Weather and Climate</i> (As time permits)	3 weeks	3.3.10.A6.

INSTRUCTIONAL RESOURCES: TRADITIONAL: Earth Science (2010) [Publisher: Holt McDougal, ISBN: 10 - 0-55-401565-X]

Labs, activities, and worksheets; Reference books; Laboratory supplies. TECHNOLOGY Internet, videos, computer-aided visuals, *Study Island*.