



Course Name		Environmental Science
Course Description		<p>This year-long, introductory course consists of an in-depth study that will explore the relationship between the environment and humans. The course will examine a variety of science disciplines including biology, geology, and chemistry within our environment. Given the opportunity for in-building instruction students will perform field work to introduce and reinforce concepts in addition to laboratory work, assignments, and research projects.</p>
Unit of Study	Content Standards/Grade Level Expectations	Approximate Time Spent or Percent of time Spent
Human Impact	Students consider the various ways that humans impact Earth's ecosystems.	2 weeks
Population Growth	Students investigate population growth based on limiting factors, with an emphasis on human population and Earth's carrying capacity.	3 weeks
Ecology	Students study ecosystems and the interactions of organisms with specific focus on biomes in Colorado.	4 weeks
Geochemical Cycles	Students develop an understanding of the role of carbon, nitrogen and phosphorus within the ecosystem	2 weeks
Agriculture and Plant Science	Students design an experiment to investigate variables that affect plant growth. Students will also learn to identify structure and function of plant systems.	3 weeks
Soil Composition	Students will build models of soil profiles to demonstrate physical properties of different soil types.	4 weeks
Hydrologic Cycle	In addition to understanding the water cycle, students will investigate human impact with respect to water pollution and conservation.	4 weeks
Atmosphere Composition	Students will investigate the properties of gases and temperature within different layers of the atmosphere and how these affect life on Earth's surface.	3 weeks
Energy Resources	Students will analyze non-renewable and renewable sources of energy, and then evaluate the pros and cons associated with the use of each type.	4 weeks
Ongoing Environmental Preservation	Students use acquired knowledge over the course of the year to debate and propose solutions to current environmental issues.	2 weeks



Course Grade Scale	
A	89.5 - 100
B	79.5 – 89.4
C	69.5 – 79.4
D	59.5 – 69.4
F	0 – 59.4

- Grades are based upon the demonstration of proficiency on units associated within specific grade reporting criteria (GRC). A Unit Test (DCI category) earning less than a 40% will earn a M until the student has demonstrated understanding of the content.

Assessment/Practice Proficiency Levels	
4	Advanced Understanding of the Standard
3	Meets the Standard
2	Approaches the Standard
1	Does not Meet the Standard
M	Missing

Grade Reporting Criteria/Weights	
Disciplinary Core Ideas (content)	50%
Science Engineering Practices	20%
Communication	20%
Practice	10%
Grades are based on achievement of Content Standards and Grade Level Expectations. *Weekly progress grades are posted at https://ic.adasm12.org/campus/portal/adams12.isp	

General Expectations

- The classroom environment will be a physically and emotionally safe space for all students to participate in and learn about the scientific method and the course content.
 - Safe laboratory behavior is **always** the expectation, which includes eye protection and zero tolerance for “horseplay”.
- Grades are based upon the demonstration of proficiency on units associated within specific grade reporting criteria.
- Assessment:** Assessments are a means to determine a student’s mastery and understanding of information, skills, concepts, or processes. These tasks make up the Disciplinary Core Ideas (content) category, weighted at 60% of the overall grade.
- Labs:** Multiple opportunities will be given throughout the year for students to exercise inquiry based learning and skills development. These assignments fall into the Science and Engineering Practices category, weighted at 15% of the overall grade.
- Written work:** A few times each semester students will be tasked with creating an essay or presentation for selected topics. These assignments fall into the Communication category, weighted at 15% of the overall grade.
- Practice:** Practice includes opportunities for students to receive clear, specific, and timely feedback as they are developing knowledge and skills, prior to Assessments. These assignments are very diverse in nature and fall into the Practice category, weighted at 10% of the overall grade.
- Assessments will be graded based on teacher/district/state rubrics.
- Students are held to the Academic Integrity Policy for Mountain Range High School.**