Austin Road Middle School

"Exceeding Expectations Every Day"

6th Grade Earth Science Course Syllabus

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Austin Road Middle School Vision

Austin Road Middle School will cultivate an environment for creativity, innovation and leadership where we exceed expectations everyday.

Austin Road Middle School Mission Statements

Austin Road Middle School strives to develop a nurturing school community that encourages academic success for each scholar through a rigorous curriculum and extracurricular opportunities supported by dedicated teachers and staff. Each scholar will become a contributing citizen of our community and global environment.

Course Description 2022-2023

Sixth grade scholars use records they keep and analyze the data they collect. They observe and explain how an aspect of weather can affect a weather system. They use different models to represent systems such as the solar system and the sun/moon/earth system. They use what they observe about the earth's materials to infer the processes and timelines that formed them. Sixth graders write instructions, describe observations, and show information in graphical form. When analyzing the data they collect, sixth graders can recognize relationships in simple charts and graphs and find more than one way to interpret their findings. The scholars replicate investigations and compare results to find similarities and differences. The middle school earth science course is designed to give all scholars an overview of common strands in earth science including, but not limited to, meteorology, geology, astronomy, oceanography, resources, and human impact on the earth.

6th Grade Earth Science Content Standards

S6E1. Obtain, evaluate, and communicate information about current scientific views of the universe and how those views evolved.

a. Ask questions to determine changes in models of Earth's position in the solar system, and origins of the universe as evidence that scientific theories change with the addition of new information.

b. Develop a model to represent the position of the solar system in the Milky Way galaxy and in the known universe.

c. Analyze and interpret data to compare and contrast the planets in our solar system in terms of:
size relative to Earth, surface and atmospheric features, relative distance from the sun, and ability to support life.

d. Develop and use a model to explain the interaction of gravity and inertia that governs the motion of objects in the solar system.

e. Ask questions to compare and contrast the characteristics, composition, and location of comets, asteroids, and meteoroids.

S6E2. Obtain, evaluate, and communicate information about the effects of the relative positions of the sun, Earth, and moon.

a. Develop and use a model to demonstrate the phases of the moon by showing the relative positions of the sun, Earth, and moon.

b. Construct an explanation of the cause of solar and lunar eclipses.

c. Analyze and interpret data to relate the tilt of the Earth to the distribution of sunlight throughout the year and its effect on seasons.

S6E3. Obtain, evaluate, and communicate information to recognize the significant role of water in Earth processes.

a. Ask questions to determine where water is located on Earth's surface (oceans, rivers, lakes, swamps, groundwater, aquifers, and ice) and communicate the relative proportion of water at each location.

b. Plan and carry out an investigation to illustrate the role of the sun's energy in atmospheric conditions that lead to the cycling of water.

c. Ask questions to identify and communicate, using graphs and maps, the composition, location, and subsurface topography of the world's oceans.

d. Analyze and interpret data to create graphic representations of the causes and effects of waves, currents, and tides in Earth's systems.

S6E4. Obtain, evaluate, and communicate information about how the sun, land, and water affect climate and weather.

a. Analyze and interpret data to compare and contrast the composition of Earth's atmospheric layers (including the ozone layer) and greenhouse gases.
b. Plan and carry out an investigation to demonstrate how energy from the sun transfers heat to air, land and water at different rates.
c. Develop a model demonstrating the interaction between unequal heating and the rotation of the Earth that causes local and global wind systems.

d. Construct an explanation of the relationship between air pressure, weather fronts, and air masses and meteorological events such as tornados and thunderstorms.

e. Analyze and interpret weather data to explain the effects of moisture evaporating from the ocean on weather patterns and weather events such as hurricanes.

S6E5. Obtain, evaluate, and communicate information to show how Earth's surface is formed.
a. Ask questions to compare and contrast the Earth's crust, mantle, inner and outer core, including temperature, density, thickness, and composition.

b. Plan and carry out an investigation of the characteristics of minerals and how minerals contribute to rock composition.

c. Construct an explanation of how to classify rocks by their formation and how rocks change through geologic processes in the rock cycle.

d. Ask questions to identify types of weathering, agents of erosion and transportation, and environments of deposition.
e. Develop a model to demonstrate how natural processes (weathering, erosion, and deposition) and human activity change rocks and the surface of the Earth.

f. Construct an explanation of how the movement of lithospheric plates, called plate tectonics, can cause major geologic events such as earthquakes and volcanic eruptions.
g. Construct an argument using maps and data collected to support a claim of how fossils show evidence of the changing surface and climate of the Earth.

h. Plan and carry out an investigation to provide evidence that soil is composed of layers of weathered rocks and decomposed organic material.

S6E6. Obtain, evaluate, and communicate information about the uses and conservation of various natural resources and how they impact the Earth.
a. Ask questions to determine the differences between renewable/sustainable energy resources (examples: hydro, solar, wind, geothermal, tidal, biomass) and nonrenewable energy resources (examples: nuclear: uranium, fossil fuels: oil, coal, and natural gas), and how they are used in our everyday lives.

b. Design and evaluate solutions for sustaining the quality and supply of natural resources such as water, soil, and air.

c. Construct an argument evaluating contributions to the rise in global temperatures over the past century.

Course Outline

Unit 1	**Universe and Solar System**	**(approximately 5 weeks)**
Unit 2	**Sun, Earth and Moon**	**(approximately 4 weeks)**
Unit 3	**Role of Water**	**(approximately 4 weeks)**
Unit 4	**Weather and Climate**	**(approximately 5 weeks)**
Unit 5	**Formation of Earth's Surface**	**(approximately 4 weeks)**
Unit 6	**Rocks and Minerals**	**(approximately 5 weeks)**
Unit 7	**Weathering, Erosion, and Soil**	**(approximately 6 weeks)**
Unit 8	**Conservation of Natural Resources**	**(approximately 3 weeks)**

Textbooks and Materials

Textbook: Houghton Mifflin Harcourt (HMH) Georgia Science Grade 6 Electronic Resources only
The scholar must provide:

- **Composition Notebook**
- **Plastic 3-pronged pocket folders (2) GREEN**
- **Writing Utensil (Pencil/ Pen- blue or black ink ONLY)**
- **(2) Glue Sticks**
- **Lined loose-leaf paper (Daily)**
- **Colored Pencils**
- **Scissors**

- **Page protectors**
- **Metric Ruler**
- **Flash Drive (2GB or higher)**
- **Ear buds/Headphones**

Online Resources : USA test Prep , Khan Academy, Google Classroom

Chrome books should be charged (overnight) on a daily basis and are for academic use only. Scholars should not use the device during instructional time without the teacher's consent.

Grading System

A = 100 – 90 B = 89 – 80 C = 79 – 74 D = 73 – 70 F = below 70

Non-Academic Grades

Scholars will be evaluated on non-academic factors as follows through the conduct grade:

S--Satisfactory N--Needs Improvement U--Unsatisfactory

Course Evaluation Categories

Practice Work	Assessment Tasks	Semester Summative Assessment Tasks
Classwork **Common Formative Assessments (Quizzes, etc.)** **Notebook/Organization Check** (minimum two per term) **40% of grade**	Summative Unit Assessments Constructed/Selected Response Assessments Culminating Performance Tasks/Projects **40% of grade**	Semester Summative Assessment/EOC **20% of grade**

Expectations

Classroom Expectations

- Come to class prepared every day.
- Be actively engaged in every lesson.
- Even when it gets difficult, never give up.
- Complete all assignments to the best of your ability.
- Be open minded in your thinking.
- Collaborate with classmates when necessary.
- Be supportive and respectful to your classmates and teacher.

Consequences

- Warnings, Jag Bites, Office Referrals

Documentation

- If a scholar receives a Jag Bite, documentation will come home for a signature as well as a phone call or e-mail.
- If a scholar receives an office referral, parent or guardian will be contacted by an administrator.

Make-Up Work

a. Scholars are responsible for any missed assignments on the first day they return to school from an absence. The number of days allowed to complete make-up work will be commensurate with the number of days in which the scholar was absent. Failure to comply with this procedure will result in a grade of zero (0) being given for graded assignments missed during an absence.

b. Scholars assigned out of school suspensions (OSS) will be allowed to make-up work upon return to school. The number

of days to complete the assignments is commensurate to the number of days of OSS (i.e., 3 days of OSS = 3 days to make up missing assignments).

Late Work Policy

Assignments that are not submitted on time will receive an "M" (missing) within the Infinite Campus gradebook. Late work that is submitted will receive a ten (10) point deduction from the overall grade per day for up to 10 days. ***Any assignment not submitted by the end of ten days will remain as a permanent grade of zero (0%) within the Infinite Campus gradebook.***

Parent-Teacher Communication

Email is the best way to contact me. heena.patel@henry.k12.ga.us Hours: 8:15 am – 4:15 pm.
Homework assignments and announcements will be sent out via Google Classroom.
Infinite Campus Messenger will be used to send updates and notifications.
You will receive a **Weekly Newsletter** via Infinite Campus with classroom updates.

Please note: It may be necessary to make adjustments in the above course syllabus based on the teacher professional observations and scholar needs.

Earth Science Grade SYLLABUS ACKNOWLEDGEMENT

Scholar's Name: _____ Class Period: _____

By signing this document, you acknowledge that you have read the syllabus in its entirety and will be held accountable if you do not meet the expectations stated above.

Scholar's Signature: _____ Date_____

By signing this document, you acknowledge that you have read the syllabus in its entirety and will do your best to support your scholar in adhering to the expectations listed in the syllabus.

Parent's Signature: _____ Date_____

Telephone Number (hm) _____ (wk) _____ (cell) _____

E-mail address_____

Thank you,

Mrs. Heena Patel