******Teacher: Name Email: teacher@henry.k12.ga.us ARMS Phone: 7701-507-5407**

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| Teacher : Mrs. Heena Patel Email: heena.patel @henry.k12.ga.us ARMS Phone (770) 507-5407 |

 **Welcome to the 2024-2025 School Year!**

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| Grade 6 Science Course Description |
| 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. |
| Units  |
| **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)** |
| Science Grade 6 Course Objectives/Content |
| **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. |
| Resources | Required Materials |
| * **Textbook**: Houghton Mifflin Harcourt (HMH) Georgia Science Grade 6
* **Online Resources :** Progresslearning.com , Khan Academy, Google Classroom
 | * Composition Notebook
* Plastic 3-prong pocket folders (2) GREEN
* Writing Utensil (Pencil/ Pen- blue or black ink ONLY)
* Glue Sticks
* Lined loose-leaf paper (Daily)
* Colored Pencils
* Scissors
* Markers/sharpies
* Metric Ruler
* Modeling clay(play dough)
* Earbuds/Headphones
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| Grading System |
| A = 100 – 90 | B = 89 – 80 | C = 79 – 74 | D = 73 – 70 | F = below 70 |

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| Grading Policy/Category Weights |
| **Practice Work** **(40 % of grade)**Classroom workCommon Formative Assessments(Quizzes)ProjectsOpening activitiesLab work | **Assessment Tasks****(40 % of grade)**Summative Unit Assessments | **Semester Summative Assessment** **(20% of grade)**Semester summative assessments |

*Henry County Schools provides high school and middle school parents and scholars access to grades via Infinite Campus Portal on the Internet.*

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| Non-Academic Grades |
|  Scholars will be evaluated on non-academic factors as follows through the conduct grade:* S--Satisfactory
* N--Needs Improvement
* U--Unsatisfactory
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| Make-up Work  |
| ● Assignments turned in past the due date will be shown as missing (calculates as a zero) in Infinite Campus.  If the missing work is turned in prior to the end of the progress report grading period, it will be graded with no penalty given.  Work turned in after the progress report grading period will be recorded as a zero in Infinite Campus.  ● If a scholar misses work due to an absence the scholar will be allowed to make up work which commensurate with his/her number of absence/s. It is the scholar’s responsibility to inquire about missed work and or assessments from his/her teacher.● Absences due to suspension from school are considered unexcused. Scholars assigned out-of-school suspension (OSS) will be allowed to make-up work upon return to school. The number of days to complete make-up work is commensurate to the number of days of OSS (i.e. 3 days of Out of School Suspension= 3 days to make up work missed). |

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| Academic Integrity  |
| Coursework submitted by a scholar must be the scholar’s own, original work. Scholars shall not cheat on any assignment by giving or receiving unauthorized assistance or commit the act of plagiarism. Scholars who commit such acts are subject to not receiving credit on the assignment in question and will be subject to disciplinary action as well. |

Teacher Name Course Name Syllabus Acknowledgement



My signature denotes that I have read and understand the items outlined in the class syllabus.

Scholar Name (Print) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Scholar Class Period: \_\_\_\_\_\_\_\_\_\_

Scholar Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

Parent Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_