

Dear Students and Parents/Guardians,

Welcome to 7th Grade Science! My name is Ms. Jordan Farmer and this is my 8th year teaching middle school science. I am honored to have your child in my science class and excited to work with you and your child throughout the year. 7th grade will be full of many exciting experiences as we engage in science and engineering practices. The success of the school year is not entirely the responsibility of the student, but rather one that is shared. This vast amount of learning will be greatly enhanced through student, teacher, and parent collaboration. Open communication with the parents is essential. The more opportunities we have to talk, either on the phone, face-to-face, or via e-mail, the more I will be able to understand and help your child with his or her needs at Riverside Middle School. My teaching philosophy encompasses teaching the whole student. I thoroughly understand what a gift your child is and how important he or she is to you. I believe every child can and should learn as much as possible. In order to facilitate this cooperation, you can contact me at any time. I look forward to working with all of you!

Course Description: 7th Grade Science is designed to expose students to many facets of the natural world through science and engineering practices. Life, environmental, and physical science will all be taught as an integrated course and with the STEAM approach. Students will utilize the science and engineering practices to identify and solve problems, apply critical thinking skills to everyday situations, work cooperatively to achieve common goals, make connections between science concepts and current events, connect science and technology using computers and laboratory equipment, make scientific connections through the writing process, and see how different sciences are dependent on each other. Communication, collaboration, creativity, and critical thinking are important skills in science as they are in life, so projects may include designing and building models, oral and/or written reports, and collaboration with peers.

The curriculum for this course is based on the 2021 SC Science Curriculum Standards. Science standards can be viewed at the SC State Department of Education website or on my teacher website.

Course Content Standards: <https://ed.sc.gov/instruction/standards/science/>

This class will meet South Carolina Standards for Science with an emphasis on:

- I. **Science and Engineering Practices**- Students will use science and engineering practices, including the processes and skills of scientific inquiry, to develop understandings of science content.
- II. **Matter and Its Interactions** – Students will explore interactions of molecules and structures, analyze properties of substances before and after a chemical reaction and how matter is conserved during reactions, and describe how properties of matter change with thermal energy.
- III. **Energy** - Students will analyze how mass and distance affect the amount of kinetic and potential energy an object has in addition to exploring how energy is transferred between systems and how that affects the temperature of a sample.
- IV. **From Molecules to Organisms** - Students will analyze the cycling of energy through living systems in plant and animal cells and compare and contrast the processes of photosynthesis and cellular respiration and how food is broken down and rearranged into usable energy for the cell.
- V. **Ecosystem Dynamics** – Students will predict the interactions and flow of energy between organisms within ecosystems and investigate how various factors impact population dynamics. Students will design solutions that address biodiversity and how to create services to maintain it.
- VI. **Earth and Human Activity** - Students will explore how human activity and consumption of natural resources impact the environment and earth's systems.

Required Textbook: *South Carolina Elevate Science Grade 7 (Savvas)*

Course Requirements: Every student is responsible for and expected to follow all rules and guidelines set forth in the [Riverside Middle School Student Handbook](#) regarding the attendance, tardy, ID badge, technology usage, plagiarism/cheating, and discipline policies.

Classroom Expectations:

“Actively Engaged and Learning...100% of the Time!!!”

It is my personal goal that students are actively engaged and learning 100% of the time in our classroom. For all of my students to be successful, **students are expected to:**

- 👍 Be honest and truthful at all times.
- 👍 Have a positive attitude.
- 👍 Respect his or her classmates, teacher, and visitors.
- 👍 Give 100% effort when completing tasks. Do ALL assigned work!
- 👍 Follow the school dress code, classroom expectations, and lab safety guidelines.
- 👍 Be on time to class prepared with all daily supplies.
- 👍 Turn off and put away personal electronic devices.
- 👍 Use discretion when requesting to leave the classroom, so important classroom information is not missed.
- 👍 Enter the room quietly and orderly and immediately begin the daily starters.
- 👍 Stay in his or her assigned seat throughout class unless he or she has been given permission to get up.
- 👍 Remain in his or her seat until Ms. Farmer dismisses them from class.
- 👍 Clean up around his or her desk and push in his or her chair before leaving the classroom.
- 👍 Respect the property of others and refrain from writing on or damaging Ms. Farmer's textbooks, furniture, and/or other classroom supplies

- **Laboratory Guidelines** (see attached *Safety Contract*)
- **Tardy Policy:** Students are expected to be on time to class every day. Persistent tardiness to class will follow these guidelines: 1st offense: warning, 2nd offense: warning and parent contact, 3rd offense: teacher consequence/detention, and 4th and subsequent offenses: office referral and parent contact.
- **Disciplinary Consequences:** Each disciplinary consequence is based on the situation and is at my discretion based on the RMS Disciplinary Consequence Matrix. Consequences will generally follow the order of the following: 1st offense: warning, 2nd offense: warning and parent contact, 3rd offense: teacher consequence/detention, and 4th and subsequent offenses: office referral and parent contact. Any severe disruption or disciplinary infraction in class will result in an immediate office referral.
- **Hall Passes:** Students who need to leave the classroom for any reason must verbally request permission from me and complete the online Hall Pass. Students are expected to use discretion when requesting to leave class, so they do not miss important class information. Hall passes are granted at my discretion.
- **Cell Phones and Personal Devices:** Cell phones and/or other personal electronic devices should be turned off and stored in backpacks at all times.
- **Dismissal from Class:** I will dismiss the class. Students are free to go when I feel they are quiet and have all the necessary information for the day.
- **Supply List:** You will need the following items by **August 18**
 - 1- Notebook (1 inch 3-ring binder) (Any color) (May combine with other subjects)
 - 2- Loose-Leaf Notebook Paper
 - 3- 1 Pack of Index Cards
 - 4- Colored Pencils **or** Markers
 - 5- Pens, Pencils, and Highlighters
 - 6- **WIRED Earbuds or Headphones**

Daily Supplies: Students are required to bring the following supplies to class daily.

- Science Binder
- Consumable Science Textbook (*SC Elevate Savvas*)
- Fully charged, school-issued Chromebook
- Wired earbuds/headphones (Wireless Bluetooth earbuds/headphones not allowed)
- Personal Pencil Pouch with all needed supplies (pencils, erasers, pens, highlighters, ruler, markers, colored pencils, etc...)
- ID Badge
- Appropriate, Extra Reading Material

Students are not allowed to use or bring the following items to class: whiteout, permanent markers, lotions, sprays, etc...

- **Grade Computation:** This grading policy is in compliance with the Greenville County Schools' policy.

Major Assessments 50%

Tests
 Formal Lab Reports
 Projects
 Formal Writing Assignments

Minor Assessments 50%

Quizzes
 Mini-Lab Reports
 Mini-Projects
 Class Work

- **Grading Scale:**
 A=90-100 B=80-89 C=70-79 D=60-69 F=50-59
- **Homework:** Homework in my class will often be for students to prepare for tests/quizzes or complete classwork or projects that aren't finished in class. Homework will be posted in the classroom daily.
- **Late Work:** Students are expected to complete and submit all assignments on the assigned due date. Schools will accept late work with no penalty to the student up to 7 days after the original due date or the end of the grading period, whichever comes first. Students who do not turn in an assignment earn a grade of NHI (50) and will be expected to complete the work at home or during one of the support opportunities (Flex Time and/or Extra Help Morning Lab) provided by Riverside Middle School. If after 7 days the assignment has not been turned in, the NHI will remain for a grade of 50. All work turned in must be complete, show mastery of content, and show that effort was put into completing the assignment. Students may be required to stay in for recess and/or other activities in order to receive support to complete work. Work can be accepted late across grading periods by special exception and approval of the teacher and/or administrator.
- **Redo/Retake Policy:** In pursuit of giving students the opportunity to demonstrate mastery in accordance with a growth mindset, Riverside Middle School has set forth the following redo/retake policy: Students or their guardians may request one opportunity to redo each major grade. Students/parents must submit their request for a redo/retake within one school week of the graded assessment being returned. Before an assessment is redone/retaken, students must complete a re-learning opportunity as determined by the teacher and agreed upon through a documented discussion between the teacher, student, and/or guardian. The retake score will replace the original score whether or not it is higher than the original score. Students may not request a redo/retake on work handed in late. Re-learning opportunities may include independent learning tasks, review activities, before or after school tutoring with a teacher, Flex time remediation, or other activities deemed appropriate by the teacher. Minor assessments may be redone/retaken at the discretion of the teacher, in order to support learning.

- **Flex Time:** Students will attend "Flex" time weekly. During this time, students will be provided with enrichment opportunities, extra help, and/or time to complete missing and make up work. All assignments completed during this time will support and be an extension of classroom instruction.
- **Tests:** Tests are announced 3-5 days in advance and dates will be posted in the classroom and on my website. Study guides/tools will be provided for each major test.
- **Missed Work from Absences/ Make-up Policy:** Students who are absent have 5 days after returning to school to complete missed work. It is the student's responsibility to get the assignments missed and complete them within the allotted time to receive full credit. Students will need to make arrangements to stay after school in order to make up quizzes or tests. Students need to pre-arrange the date with me before planning to stay. Emergency situations and extended absences will be handled on an individual basis.
- **Extra Help:** If your child is struggling in my class or would like extra help, I am available before and after school. Students/parents must arrange a time that suits the schedule of both parties ahead of time. Additionally, extra help with certified teachers is available from 7:30-8:15 each morning in the computer labs closest to the bus port.
- **Conferences:** At any time, if you would like to meet with me, please call guidance at 355-7915 to set up an appointment. I am available on most days from 11:30 to 12:30.
- **E-mail:** Parents and students are welcome to email me at jefarmer@greenville.k12.sc.us. Parents and students will receive Weekly Updates with important class information and reminders.
- **Teacher Website:** Test and quiz dates, weekly planners, and other class information and study tools will be posted on my website at <https://sites.google.com/greenvilleschools.us/jefarmer/home>
- **Google Classroom:** Google Classroom will be used throughout the year to streamline traditional and technology-based learning.

A copy of this information has been given to each student. Parents or guardians should complete and sign the bottom portion and return it to me **OR** email acknowledgment by **August 13. Students should put the remainder of this syllabus in the front of their science binder.**

Email me at jefarmer@greenville.k12.sc.us to acknowledge that you and your child have read and understand the syllabus OR cut here and return completed bottom portion to Ms. Farmer by Monday, August 13.

We have read and discussed the information in this syllabus concerning Ms. Farmer's classroom expectations and the lab safety contract.

Student Name (print) _____

Student Signature _____

Parent Signature _____

Parent Email Address (please print neatly)

Email addresses will be used to send class information and reminders.

7th Grade Science Curriculum Map and Content Standards

Grade Seven Science and Engineering Practices

Throughout each unit of study, students will be engaged in scientific and engineering practices as a means to learn about specific topics.

Engineering Design

- Ask questions and define problems
- Develop, use, and refine models
- Plan and conduct investigations
 - Formulate scientific questions and testable hypotheses
 - Identify materials, procedures, and variables
 - Select and use tools to collect qualitative and quantitative data
 - Record and present data
 - Use appropriate safety procedures
- Analyze and interpret data
 - Reveal patterns and construct meaning
 - Support hypotheses, explanations, claims, and designs
- Use mathematical and computational thinking
 - Use and manipulate appropriate metric units
 - Collect and analyze data
 - Express relationships between variables
 - Statistically analyze data
- Construct explanations and design solutions
- Engage in scientific argument from evidence
- Obtain, evaluate, and communicate information
- Construct devices or designs to solve problems

Crosscutting Concepts

To connect knowledge across the science disciplines and employ universal properties and processes that are valued by both scientists and engineers, the following crosscutting concepts will be emphasized throughout the year:

- Patterns
- Cause and Effect
- Scale, Proportion, and Quantity
- Systems and System Models
- Energy and Matter: Flows, Cycles, and Conservation
- Structure and Function
- Stability and Change

7th Grade Core Science Content

Laboratory Safety

(Weeks 1-2)

Unit 1 ~ Matter and Its Interactions

(Weeks 3-9)

SC Science Standards: 7-PS1-1, 2, 3, 5, and 6

Savvas: Topic 2 Lessons 1-3 and Topic 3 Lessons 1-4

Introduction to Matter

- Atoms, Elements, Molecules, Compounds, and Mixtures
- Physical and Chemical Properties
- Mass, Volume, Weight, and Density
- Physical and Chemical Changes
- Thermal Energy

Chemical Reactions

- Colloids, Suspensions, Solutions, Solubility
- Chemical Reactions
- Chemical Equations
- Law of Conservation of Mass

Unit 2 ~ Energy

(Weeks 10-15)

SC Science Standards: 7-PS3-1, 2, and 5

Savvas: Topic 1 Lessons 1-4

Energy

- Energy, Motion, Force, Work, and Power
- Kinetic and Potential Energy
- Mechanical, Nuclear, Thermal, Chemical, and Electrical Energy
- Electromagnetic Radiation
- Law of Conservation of Energy

Unit 3 ~ From Molecules to Organisms

(Weeks 16-18)

SC Science Standards: 7-LS1-6 and 7

Savvas: Topic 4 Lessons 1 & 2

Cellular Processes

- Photosynthesis
- Cellular Respiration
- Fermentation

Unit 4 ~ Ecosystem Dynamics

(Weeks 19-27)

SC Science Standards: 7-LS2-1, 2, 3, 4, and 5

Savvas: Topic 4 Lesson 1, Topic 5 Lessons 1-3, and Topic 6 Lessons 1-4

Ecosystems

- Levels of Organization
- Abiotic and Biotic Factors
- Limiting Factors
- Immigration and Emigration
- Food Chains and Webs
- Energy Pyramid

- Laws of Conservation of Mass and Energy
- Water, Carbon, and Oxygen Cycles
- Nitrogen Fixation

Populations, Communities, and Ecosystems

- Relationships within Ecosystems (Competition, Predation, Symbiosis, Commensalism, Parasitism, and Mutualism)
- Primary and Secondary Succession
- Pioneer, Keystone, and Invasive Species
- Extinction
- Ecosystem Services
- Natural Resources
- Sustainability and Ecological Restoration

Unit 5 ~ Earth and Human Activity

(Weeks 28-36)

SC Science Standards: 7.ESS3-1, 3, 4, and 5

Savvas: Topic 7 Lessons 1-4, Topic 8 Lessons 1-4, and Topic 9 Lessons 2 & 3

Distribution of Natural Resources

- Renewable and Nonrenewable Resources
- Nuclear Fission
- Solar, Wind, and Geothermal Energy
- Biomass
- Crystallization and Mineral Distribution
- Surface and Groundwater
- Desalination

Human Impacts on the Environment

- Birth and Death Rate
- Exponential Growth
- Overpopulation
- Conservation
- Pollution, Emissions, Ozone, and Acid Rain
- Deforestation, Erosion, and Desertification
- Sewage and Sediment

Climate

- Climate Change
- Greenhouse Gas and Effect
- Global Warming
- Fossil Fuels
- Cascade Effect

