

Course Description: 7th Grade Science is designed to expose students to many facets of the natural world through science and engineering practices. Biology, ecology, chemistry, and earth 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 it is in life, so group projects may include designing and building models, oral and/or written reports, and group work. The curriculum for this course is based the 2014 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: <http://ed.sc.gov/instruction/standards-learning/science/standards/>

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

- I. **Science and Engineering Practices-** Student will use the science and engineering practices, including the processes and skills of scientific inquiry, to develop understandings of science content.
- II. **Physical Science: Classification and Conservation of Matter-** Students will demonstrate an understanding of the structure and properties of matter and that matter is conserved as it undergoes changes.
- III. **Life Science: Organization in Living Things-** Students will demonstrate an understanding of how the levels of organization within organisms support the essential functions of life.
- IV. **Life Science: Inheritance and Variation of Traits-** Students will demonstrate an understanding of how genetic information is transferred from parent to offspring and how environmental factors and the use of technologies influence the transfer of genetic information.
- V. **Ecology: Interactions of Living Systems and the Environment-** Students will demonstrate an understanding of how organisms interact with and respond to the biotic and abiotic components of their environments.

Disclaimer: Because our primary goal is to maximize student achievement, material may be added, deleted, and/or substituted at the teacher's discretion based on the individual needs, levels, and learning styles of each class. Creative projects, written assignments and supplemental materials may be included throughout the year as opportunities arise. There will be on-going assessment as well as writing assignments.

Required Textbook: Glencoe **South Carolina Science** Grade 7 (Leave at home until May 2018) **and** Discovery Education Science Online Tech Book for South Carolina

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, Bring Your Own Technology (B.Y.O.T), Plagiarism/Cheating and discipline policy.

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 my 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.
- 👉 Come prepared with all daily supplies.
- 👉 Leave cell phones and other unauthorized personal electronic devices, turned off, in his or her locker.
- 👉 Leave large handbags, book bags, nylon sports bags, and any other type of large bag in his or her locker.
- 👉 Use the restroom and go to his or her locker before they come to class.
- 👉 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 their seat until Mrs. Woody dismisses them from class. The bell does not dismiss students from my 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 Mrs. Woody's textbooks, furniture, and/or other classroom supplies.

- **Laboratory Guidelines** (see Safety Contract)
- **Tardy Policy:** Students are expected to be on time to class every day. Students will be given four minutes between classes to go to their locker, use the restroom, and take care of personal business **before they enter my classroom**. Students who are late must sign in. Persistent tardiness to class will follow these guidelines: 1st offense: warning, 2nd offense: warning and parent contact, 3rd offense: detention, 4th and subsequent offenses: office referral and parent contact.
- **Disciplinary Consequences:** Each disciplinary consequence is based on the situation and is at my discretion. Consequences will generally follow the order of the following: 1st offense: warning, 2nd offense: warning and parent contact, 3rd offense: 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.
- **Student Agendas and Hall Passes:** Students are required to bring their agenda to class everyday and write down any homework assignments. If there is no homework for a given day, students are to write "none." Student agendas will be checked periodically. Hall passes are written at my discretion. I usually do not let anyone leave my room unless there is an emergency. During class changes, students are free to go to the restroom, but generally not during class.
- **Dismissal from Class:** When the bell rings at the end of each period, **I will dismiss the class.** Students are free to go when I feel they are quiet and have all necessary information for the day.
 - 1- **Supply List:** You will need the following items by **August 28**
 - 2- Notebook (3-ring binder) (Any color) (May combine with another subject with other teacher's approval)
 - 3- Loose-Leaf Notebook Paper (not spiral)
 - 4- 2 Notebook Dividers (1st divider labeled "**Notes and Handouts**"; 2nd divider labeled "**Stems**")
 - 5- 1 Roll of Paper Towels or tissues
 - 6- Markers or Colored Pencils (to stay in class)
 - 7- Pens, Pencils, and Highlighters
 - 8- Appropriate Reading Material (novel) (for when you finish early)

Optional Donations for our Classroom: All donations are greatly appreciated!!!

- Zip Lock Bags (quart or gallon)
- Crayola Washable Markers
- Colored Copier Paper (any color)
- Glue Sticks or Scotch Tape
- Jolly Ranchers or other candy for student incentives
- Play-Doh
- Band-Aid Brand Adhesive Bandages
- Highlighters
- Nitrile Disposable Gloves (no latex; any size)
- Clorox disinfecting wipes or all-purpose cleaner

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

- ☐ Science Binder
- ☐ Science Book
- ☐ Pens, Pencils, and Highlighters
- ☐ Agenda
- ☐ 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
 - Homework
 - Class Work
 - Weekly Starters

- **Grading Scale:**

A=90-100 B=80-89 C=70-79 D=60-69 F=50-59

- **Homework:** Homework will be posted in the classroom daily. When written work is not assigned, students are expected to read over their science notes every night in preparation for tests/quizzes. Students should do homework completely and carefully. Homework may be checked for completion or collected and graded for accuracy.
- **Late Work:** Students are expected to complete and submit all assignments on the assigned due date to receive full credit. All work turned in must be complete and show that effort was put into completing the assignment. For work turned in late, the RMS Late Work Policy will be followed. Students who do not turn in an assignment will be assigned a grade of NHI (Not Handed In) and be required to complete the assignment during academic support time or independently outside of class until the assignment is completed. Students may earn up to 75 points once the late assignment has been completed. Any assignment that has been discussed and answers have been provided will not be accepted late.
- **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. NHI (Not handed in) is earned if the work is not made up by the due date. 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.
- **Conferences:** At any time, if you would like to meet with me, please call Lynn Truitt at 355-7915 to set up an appointment. I am available on most days from 9:45 until 10:15 and 1:30 until 2:00.
- **E-mail:** Parents and students are welcome to email me at cwoody@greenville.k12.sc.us. I will periodically send emails to parents and students 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/a/greenvilleschools.us/cwoody/>.

7th Grade Science Topics

(Quarter topics may not be covered in exact order outlined)

Physical Science: Classification and Conservation of Matter **(Weeks 1-9)**

SC Science Standards: 7.P.2A.1 through 7.P.2A.4 and 7.P.2B.1 through 7.P.2B.5

Chapters 4, 17, 18, 19, 20, and 21

- ☐ Matter
- ☐ Atoms
- ☐ Periodic Table
- ☐ Metals, Nonmetals, Metalloids
- ☐ Elements, Compounds, and Mixtures
- ☐ Chemical Symbols and Formulas
- ☐ Ionic and Covalent Bonds
- ☐ Physical and Chemical Properties of Matter
- ☐ Acids and Bases
- ☐ Physical and Chemical Changes
- ☐ Chemical Equations
- ☐ Law of Conservation of Matter

Life Science: Organization in Living Systems **(Weeks 10-22)**

SC Science Standards: 7.L.3A.1 through 7.L.3A.4 and 7.L.3B.1 through 7.L.3B.2

Chapters 2, 3, 4, 5, 7, 8, 9, 10, 11

- ☐ Cell Theory
- ☐ Classifying Cells
- ☐ Cell Structures and Functions
- ☐ Helpful and Harmful Bacteria
- ☐ Organization within an Organism
- ☐ Human Body Systems
 - o Circulatory
 - o Respiratory
 - o Digestive
 - o Excretory (Urinary)
 - o Nervous
 - o Musculoskeletal

Life Science: Inheritance and Variation of Traits **(Weeks 23-29)**

SC Science Standards: 7.L.4A.1 through 7.L.4A.6

Chapters 5 and 6

- ☐ Genes and Chromosomes
- ☐ Patterns of Inheritance
- ☐ Punnett Squares
- ☐ Incomplete and Co-Dominance
- ☐ Genetic Mutation
- ☐ Technology and Genetic Engineering

Ecology: Interaction of Living Systems and Their Environments **(Weeks 30-34)**

SC Science Standards: 7.EC.5A.1 through 7.EC.5A.3 and 7.EC.5B.1 through 7.EC.5B.4

Chapters 13 and 14

- ☐ Organization within Ecosystems
- ☐ Soil Quality
- ☐ Interactions Among Changes in Environment
 - o Natural Hazards
 - o Limiting Factors
 - o Climate
 - o Resources
- ☐ Interactions Among Organisms
 - o Competition
 - o Symbiosis
 - o Parasitism
 - o Mutualism
 - o Commensalism
 - o Predator-Prey Relationships
- ☐ Energy Flow
 - o Food Webs
 - o Energy Pyramid
- ☐ Population Changes
- ☐ Invasive Species and Government Programs

SCPASS Review and Testing **(Weeks 35-36)**

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.

SC Science Standards: 7.S.1A.1 through 7.S.1A.8 and 7.S.1B.1

- ☐ Ask questions and define problems
- ☐ Develop, use, and refine models
- ☐ Plan and conduct investigations
 - o Formulate scientific questions and testable hypotheses
 - o Identify materials, procedures, and variables
 - o Select and use tools to collect qualitative and quantitative data
 - o Record and present data
 - o Use appropriate safety procedures
- ☐ Analyze and interpret data
 - o Reveal patterns and construct meaning
 - o Support hypotheses, explanations, claims, and designs
- ☐ Use mathematical and computational thinking
 - o Use and manipulate appropriate metric units
 - o Collect and analyze data
 - o Express relationships between variables
 - o 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:

1. Patterns
2. Cause and Effect: Mechanism and Explanation
3. Scale, Proportion, and Quantity
4. Systems and System Models
5. Energy and Matter: Flows, Cycles, and Conservation
6. Structure and Function
7. Stability and Change

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