

Dear Students and Parents/Guardians,

Welcome to 8th Grade Science! My name is Mrs. Litcher and this is my 9th 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. 8th 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: 8th Grade Science is designed to expose students to many facets of the natural world through science and engineering practices. Physics, Space 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>

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: Forces and Motion-** The student will demonstrate an understanding of the effects of forces on the motion and stability of an object.
- III. **Physical Science: Waves-** The student will demonstrate an understanding of the properties and behaviors of waves..
- IV. **Earth Science: Earth's Place in the Universe-** The student will demonstrate an understanding of the universe and the predictable patterns caused by Earth's movement in the solar system.
- V. **Earth Science: Earth's Systems and Resources-** The student will demonstrate an understanding of the processes that alter the structure of Earth and provide resources for life on the planet.
- VI. **Earth Science: Earth's History and Diversity of Life-** The student will demonstrate an understanding of Earth's geologic history and its diversity of life over time.

Required Textbook: Online: [Discovery Education](#)

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, and out of sight.
- ✦ 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. Litcher dismisses them from class. The bell does not dismiss students from my class.
- ✦ Clean up around his or her desk before leaving the classroom.
- ✦ Respect the property of others and refrain from writing on or damaging Mrs. Litcher's furniture, and/or other classroom supplies.

- **Laboratory Guidelines** (see attached Safety Contract)

- **Classdojo:** As a classroom incentive, we will be using classdojo which helps me to communicate to parents instantly what his/her child is doing in my class. Points will be given for good behavior and points taken away for bad behavior. Exact behaviors for points will be explained on the Classdojo website.
- **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 are late if they are not in their assigned seat. 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. All offenses come with a 1pt deduction on Classdojo.
- **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: after school 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. All offenses come with 1pt Classdojo deduction.
- **Student Agendas and Hall Passes:** Students are required to bring their agenda to class everyday and write down any homework assignments. **Homework is due every Friday.** 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.
- **Cell Phones and Bring Your Own Technology:** When cell phones and/or other student personal devices are not being used for educational purposes directed by Mrs. Litcher, students will be expected to keep them silenced and out of sight. Use of device when not permitted will follow disciplinary consequences and Classdojo point deductions.
- **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.
- **Supply List:** You will need the following items by **August 28th**
 - 1- Notebook (1 inch 3-ring binder) (Any color) (May combine with another subject with other teacher's approval)
 - 2- Loose-Leaf Notebook Paper (not spiral)
 - 3- Colored Pencils (**will be distributed in the classroom**)
 - 4- Markers (**will be distributed in the classroom**)
 - 5- 2 Notebook Dividers (1st divider labeled "**Notes and Handouts**"; 2nd divider labeled "**Starters and Stems**")
 - 6- 1 Roll of Paper Towels
 - 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!!!

- Paper Towels and/or Kleenex
- Crayola Washable Markers
- Colored Copier Paper
- Card Stock Paper (any color)
- Scrapbook Paper (12 X 12; any color and/or any design)
- Glue Sticks
- Jolly Ranchers
- Liquid Soap
- Hand Sanitizer
- Band-Aid Brand Adhesive Bandages
- Highlighters

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

- ☐ Science Binder
- ☐ Pens, Pencils, and Highlighters
- ☐ Agenda
- ☐ ID Badge

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
Projects
Formal Writing Assignments
Notebooks

Minor Assessments 40%

Quizzes
Mini-lab Assessments
Class Work

Homework 10%

- **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 on **Mondays**. Homework will always be due on **Fridays**. Students are also 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 attend "Working Lunch" until the assignment is completed. Students may earn up to 75 points once the assignment has been completed. Any assignment that has been discussed and answers have been provided will not be accepted late. Homework assignment may be completed in Working Lunch.
- **Working Lunch:** Students may be assigned to working lunch if any assignment has not been turned in, if he/she scores below a 50 on a classwork assignment or major assessment, to retake a failing grade (below 60), or if the student needs extra assistance to grasp a concept or complete an assignment.
- **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.
- **Extra Credit:** One extra credit assignment will be given each 9 weeks. This is optional but paper will need to be signed by parent or guardian if student has chosen to opt out.
- **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 8:30 until 9:20 and 12:30 until 1:20pm.
- **E-mail:** Parents and students are welcome to email me at slitcher@greenville.k12.sc.us.
- **Remind:** I will periodically send messages 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/greenvilleschools.us/slitcher>.
- **Google Classroom:** Students will be part of Google Classroom for some online assignments. Parents can also join in order to get important information.

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 by **August 25th** for their first homework grade. **Students should put the remainder of this syllabus in the front of their science binder.**

Cut here and return completed bottom portion to Mrs. Litcher by August 25th .

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

Student Name (print) _____

Student Signature _____

Parent Signature _____

Parent Email Address (please print neatly) If you have not provided it.

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

8th Grade Science Curriculum Map and Content Standards

8th Grade Core Science Content

Physical Science: Forces and Motion

(Weeks 1-8)

SC Science Standards: 8.P.2A.1 through 8.P.2A.7

- ☐ Mass
- ☐ Motion
- ☐ Speed, Velocity & Direction
- ☐ Balanced and Unbalanced Forces
- ☐ Newton's Laws of Motion
- ☐ Gravitational Force
- ☐ Friction and Normal Force
- ☐ Making and Interpreting Speed and Velocity graphs
- ☐ Determine Average Speed

Physical Science: Waves

(Weeks 8-14)

SC Science Standards: 8.P.3A.1 through 8.P.3A.6

- ☐ Matter
- ☐ Mechanical Energy and Electromagnetic Waves
- ☐ Behavior of Waves
- ☐ Behavior of Mechanical Waves that Intersect
- ☐ Parts of the Human Eye
- ☐ Instruments that Extend Human Senses

Earth Science: Earth's Place in the Universe

(Weeks 14-22)

SC Science Standards: 8.E4A.1 through 8.E4A.2 and 8.E.4B.1 through 8.E.4B.6.

- ☐ Sun position and layers
- ☐ Shaped of Galaxies
- ☐ Space Bodies (comets, meteors and asteroids)
- ☐ Seasons, Moon phases
- ☐ Eclipses and Tides
- ☐ Technology and Genetic Engineering

Earth Science: Earth's Systems and Resources

(Weeks 22-31)

SC Science Standards: 8.E5A.1 through 8.E.5A.5 and 8.E.5B.1 through 8.E.6B.3 and 8.E.5C.1

- ☐ Weathering, Erosion and Deposition
- ☐ Rock Cycle
- ☐ Earth's Layers
- ☐ Plate Tectonics
- ☐ Continental Drift Theory
- ☐ Volcanoes and Earthquakes
- ☐ Rocks & Minerals
- ☐ Fossil Fuels

Earth Science: History and Diversity of Life

(Weeks 31-35)

SC Science Standards: 8.E6A.1 through 8.EC.6A.5 and 8.E.6B.1 through 8.E.6B.2

- ☐ Geologic Time Scales
- ☐ Types of Fossils
- ☐ Evidence of Cat atrophies
- ☐ Taxonomic Grouping of Organisms
- ☐ Biological Adaptations
- ☐ Human and Natural caused of Extinction

SCPASS Review and Testing

(Weeks 35-36)

Grade Eight 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: 8.S.1A.1 through 8.S.1A.8 and 8.S.1B.1

- ☐ 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:

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

Required Online Textbook: **Discovery Education**

Disclaimer: Because our primary goals 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.