

Riverside Middle School
Mrs. Colette O'Connell M. Ed. Science Education, B.S. Biology
8th Grade Science Syllabus
Room G 115 Phone: 355-7927 355-7900 Main office
coconnel@greenville.k12.sc.us

I am pleased to be part of the Riverside Middle School community of learners. I adhere to the academic standards set forth in the student handbook. I am here to promote academic excellence. Standards for academic performance are necessary to successfully accomplish this goal. Please e-mail or call me for any concerns you wish to discuss. All conferences are scheduled through the guidance office. I look forward to working with you and your student(s). I will use various teaching strategies and assessments to match the learning strengths and weakness of my students.

Course Description: The eighth grade science curriculum is part of the South Carolina integrated curriculum. Reading comprehension, mathematics, critical thinking, problem solving and research skills are emphasized in various content areas. The curriculum is a combination of physical science, astronomy, geology and life science.

Textbook: South Carolina Science Grade 8 Glencoe Publishing ; 2007

Learning and developmental goals:

1. Students will utilize the scientific method to identify and solve problems, apply science process 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 observations through the writing process, and see how difference sciences are dependent on each other.
2. Students will understand the processes of life and how interactions of organisms with their environment usually result in adaptations and change over time.
3. Students will understand the process and interactions of earth and space systems and how they relate to the dynamics of our atmosphere, lithosphere, hydrosphere and solar system.
4. Students will understand the nature and interactions of forces and matter, which determine the motions of bodies and how these interactions influence daily life and our perception of the world and its place in the solar system.
5. Students will understand the history of life on Earth, the applications of science and technology and how human activity impacts our world and the things living in it.
6. Students will understand and use process skills such as observation, classification, measurement, inferring, and presenting data.
7. Students will design, conduct and evaluate investigations using scientific equipment and terminology and demonstrate scientific reasoning and logic.

Instructional Units and Sequencing: This schedule is subject to change. Numbers in parentheses refer to South Carolina state science curriculum standards which can be found at myschools.com and greenville.k12.sc.us. Standardized tests and student needs will impact the flow and sequencing of these units.

Introduction/Scientific Method (8-1)

- a. scientific process skills
- b. principles of science
- c. scientific method
- d. lab skills
- e. scientific measurement

Unit 1

Earth's Biological History (8-2)

- a. fossils
 - b. geologic time
 - c. Biological diversity over time
 - d. natural and man made causes of extinction
 - e. Ways to prevent extinction
 - f. biological adaptations g. diversity of life
- Unit test (major)

Earth's Structure & Processes (8-3)

- a. Internal structure of Earth
 - b. igneous phenomena-
rocks/volcanoes/earthquakes/plate tectonics
 - c. heat transfer to and within Earth
 - d. distinguishing common minerals
 - e. sedimentary and metamorphic rocks
 - f. rock cycle
 - g. topographic maps/geology of South Carolina
- Unit test (major)

Unit 2

Astronomy: Earth & Space Systems (8-4)

- a. layers of the sun
- b. solar phenomena-sunspots, flares, prominence, solar wind
- c. fusion
- d. seasons, day and night, tides, eclipses, phases of the moon
- e. contributions of Copernicus and Galileo
- f. members of the solar system- planets, asteroids, comets,
and meteors
- g. exploration of space-radio and light telescopes, probes, satellites
- h. contributions of the space program- past, current, and future
- i. Newton's three Laws of Motion
- j. Rocket science

Unit Project (4 major grade)

Unit 3

Transfer of Light Energy (8-4)

- a. components of the electromagnetic spectrum-Doppler effect
 - b. refraction, reflection, transmission and absorption of light
 - c. concave and convex lenses
 - d. parts of the eye
 - e. reflecting and refracting telescopes
 - f. properties of waves
- Unit test (major)

Unit 4

Forces, Motion & Waves (8-5)

- a. speed, velocity, acceleration, and momentum
- b. predicting speed and velocity based on line graphs
- c. forces in a variety of situations- Newton's Laws of Motion
- d. balanced and unbalanced forces
- e. vectors
- f. effects of forces on motion

g. relationship between gravity, distance, and mass
Unit test (major)

End of 4th quarter Cumulative final review and exam (major)

According to the School District of Greenville County Grade Weighting, “Assessment is a key component of an instructional program.” I will follow the guidelines set by the district for middle school Science.

The following table lists the weighting of assignments and a minimum number of assignments expected in each category (shown in parenthesis). Examples of assignments are also listed where appropriate.

Science	Minor (12) 50%	Major (3-4) 50%
	Grades based on subject-specific content, thinking/reasoning skills, communication skills; may include quizzes, journals, informal writing assignments, informal oral presentations, informal laboratory write-up/reports, homework, class work, note taking skills, and video notes. Laboratory experiences will be designed to explore subject specific content.	Grades based on subject-specific content knowledge, thinking/reasoning skills, and communication skills; may include tests, research based products, culminating products, major oral presentations, formal lab write-ups & presentations. Laboratory experiences will be designed to explore subject specific content.

Tests and quizzes: All tests will be announced a minimum of three days in advance. Each chapter covered will have a test (major). Some tests will include a performance or practical part. Tests will include reading comprehension, calculations, graphs, charts, tables, vocabulary, writing, and will require critical thinking skills. These skills will be taught and practiced prior to testing. Most quizzes (minor) will be announced at least one (1) day in advance. Any reading assignment can be covered in an unannounced quiz. Information covered in class should be reviewed nightly. Materials covered in the previous days class can be covered in an unannounced quiz.

Labs are major grades. A printable lab template is located on this web site. Labs are conducted in class but occasionally lab write-ups are completed at home. Labs are considered complete and gradable only when all lab paperwork is returned.

Ø Playing in the lab will result in a zero for the lab and removal to another teacher’s room. An alternate assignment will be given and you may earn back up to seventy points for the correct completion of the assignment. You will be responsible for any content covered in the lab. Endangering another student will result in a referral to the office.

Late work policy: All assignments are to be brought to class and turned in on time. Please refer to the RMS Student-Parent Handbook that states, “Assignments left at home or in the locker may not be accepted.” Unexcused late work will not be accepted.

The first day homework, a project and/or report is late; thirty (30) points will be deducted from the grade. The second day homework, a project and/or report is late fifty (50) points will be deducted unless the teacher has given prior approval or extenuating circumstances arise. The parent must contact me should this situation arise. Please pre-plan for computer/printer issues. After two days students that do not turn in work will be sent to Homework Recovery.

Class Excuse/ Tardy Policy: You are expected to be on time for class, bring all materials every day

and stay for the entire class. Restroom visits are to take place between classes. Students may go to their locker between classes but are still responsible to exchange books and arrive to class on time , ample time is aloted for restroom and locker trips between class change. All medical situations that are verified through the nurse and administration will me honored. Students must sign in to the tardy book when arriving late and not disturb the learning environment. Please read the tardy policy in the handbook. The tardy policy will be part of the 5-step discipline plan.

Absences: Follow the procedures in your handbook. It is your responsibility to get any work you have missed and to turn in any assignment collected during your absence when you return. Please arrange a time to see me for additional help. Please make an appointment to see me for additional help if needed on missed assignments. You are responsible for make up tests/quizzes/labs missed; you must come to me to arrange make-ups the day you return with an excused absence note from the office. Test/quizzes must be made up when you return or make arrangements with me for an excused, extended illness. Please follow the procedures in the handbook. If you fail to make up assignments you will earn a zero.

Rules:

Ø Be on time & prepared: readings, homework, book, paper, pencil/pen etc.

Ø RESPECT yourself & each other: No put downs, no slang terms

Ø Listen to directions & follow them the first time.

Ø All school rules apply (i.e.: no head gear, no eating/candy or drinking in class, no electronic devices, etc.)

YOU are responsible for knowing and complying with the School District of Greenville County and Riverside Middle School rules & policies in your handbook. Please read them.

Consequences: A verbal warning will be given the first time a student does not follow the rules. Failure to correct the problem will result in a parent contact. If the disruptive behavior continues a parent conference and/or an administrative referral will follow. Severe disruptions will be sent immediately to an administrator without a warning to the student. This is your warning. A learning environment will be maintained at all times.

Required Materials: You are responsible for taking care of your textbook. Covering your textbook is required and you must be prepared with the assigned reading every day.

- 3 ring binder- your choice: large for multiple classes or individual for each class - with dividers
- #2 pencils for all classes and standard test
- Loose leaf notebook paper- your choice: college/wide
- Pencils for all of your math and lab work. Blue or black ink is accepted for your notes and vocabulary.
- Colored pencils- in a pouch or baggie when the box falls apart
- Glue Sticks
- Highlighter
- Calculator-basic functions
- Book cover- no laminated covers; they will damage your book when they are pulled off of the book.

Grading: 8th grade students must receive A's every quarter in order to exempt exams, no exceptions. 8th grade students taking high school credit courses (Math and English) may not exempt their exam.

Grading scale: A=93-100
B=85-92

C=77-84

D=70-76

F=69 or below

Version 12.6

Created 7/13/2008 1:08:58 AM by Colette O'Connell

Modified 8/16/2011 8:35:58 AM by Colette O'Connell

Copyright Greenville County School District. All Rig