5th Grade Science Syllabus
2024-2025

General Course Information:

Course Name: Science, Grade 5
Semester and Year: Fall 2024 -Spring-2025
Adopted Textbook: Science Studies Weekly
ISBN: 978-1-64978-041-6

Credit offered: N/A
Instructor/Contact Information:
Regina Harrison, 5th Grade Teacher rsharrison@chiltonboe.com

Course Description: Studies Weekly is a science curriculum for grades K-5 that's aligned with the Next Generation Science Standards (NGSS). It's designed to encourage student-driven learning through phenomenon-based instruction and is adaptable to in-class or remote learning. The curriculum includes:

- Hands-on activities: Students use science tools like thermometers, scales, and beakers, and practice with nonfiction and informational text.
- Open-and-go lessons: Lessons are guided by questions that encourage students to explore and solve real-world problems with data.
- Assessments: The program includes formative and summative assessments.

Prerequisite: N/A
Instructional and Technology Information
Required Textbooks: Include ISBN and edition for all books. Differentiate between required and optional.
Specific Technologies/Software/Programs used in this course: Schoology, Classroom Tech Board

Grading: Major grades (tests and projects) are 100 points. Minor grades (Article Questions.) are 50 points and below.

Course Policies and Procedures:
Attendance/Missed Work - If a student is absent, he or she will need to bring an excuse to make up any missed work. The student will have 2 days to bring in an excuse. The teacher will work with the student on their missed work.

Expectations of classroom behavior -

Study Habits & Conduct Expectations

1. **Listen the First Time**
2. **Come to Class Prepared**
3. **Follow Classroom Directions**
4. **Talk or Leave Seat Only with Permission or at Appropriate Times**
5. **Respect Others and their Property**
6. **Do Not Disrupt Classroom Routines or Procedures**

Consequences

1st offense - Verbal warning from the teacher
2nd offense - Sit out at break or Silent Lunch
3rd offense - Write lines given by the teacher
4th offense - Parent contact
5th offense - Office referral

Phone Policy:

- Cell phones/electronic devices may only be used during class changes or after school. Devices may not be used in the lunchroom, classroom settings, or in restrooms.
- If a student is caught using a cell phone/electronic device during class time, a staff member will confiscate the device.
- Refusal to surrender the phone when asked is considered defiance. Defiance will result in disciplinary consequences, including suspension. Parents will be contacted.
- Filming/videoing or taking photos of individuals without the consent of a school board employee is an intermediate offense.

- If offense occurs during testing, the Board of Education will follow State Digital Policy, which may include suspension.

Netiquette statement - Students are responsible for good behavior when using school computer networks since communications on the network are often public in nature. General school rules for behavior and communication apply to using devices issued by the school or student-owned devices. Student-issued devices will follow the Chilton County Schools Digital Device Acceptable Use Agreement.

Course Outline/Schedule: https://alex.alsde.edu/

SC15.5.1 Plan and carry out investigations (e.g., adding air to expand a basketball, compressing air in a syringe, dissolving sugar in water, evaporating salt water) to provide evidence that matter is made of particles too small to be seen.
SC15.5.2 Investigate matter to provide mathematical evidence, including graphs, to show that regardless of the type of reaction (e.g., new substance forming due to dissolving or mixing) or change (e.g., phase change) that occurs when heating, cooling, or mixing substances, the total weight of the matter is conserved.
SC15.5.3 Examine matter through observations and measurements to identify materials (e.g., powders, metals, minerals, liquids) based on their properties (e.g., color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, solubility, density).
SC15.5.4 Investigate whether the mixing of two or more substances results in new substances (e.g., mixing of baking soda and vinegar resulting in the formation of a new substance, gas; mixing of sand and water resulting in no new substance being formed).
SC15.5.5 Construct explanations from observations to determine how the density of an object affects whether the object sinks or floats when placed in a liquid.
SC15.5.6 Construct an explanation from evidence to illustrate that the gravitational force exerted by Earth on objects is directed downward towards the center of Earth.
SC15.5.7 Design and conduct a test to modify the speed of a falling object due to gravity (e.g., constructing a parachute to keep an attached object from breaking).*
SC15.5.8 Defend the position that plants obtain materials needed for growth primarily from air and water.
SC15.5.9 Construct an illustration to explain how plants use light energy to convert carbon dioxide and water into a storable fuel, carbohydrates, and a waste product, oxygen, during the process of photosynthesis.
SC15.5.10 Construct and interpret models (e.g., diagrams, flow charts) to explain that energy in animals' food is used for body repair, growth, motion, and maintenance of body warmth and was once energy from the sun.
SC15.5.11 Create a model to illustrate the transfer of matter among producers; consumers, including scavengers and decomposers; and the environment.
SC15.5.12 Defend the claim that one factor determining the apparent brightness of the sun compared to other stars is the relative distance from Earth.
SC15.5.13 Analyze data and represent with graphs to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky (e.g., shadows and the position and motion of Earth with respect to the sun, visibility of select stars only in particular months).
SC15.5.14 Use a model to represent how any two systems, specifically the atmosphere, biosphere, geosphere, and/or hydrosphere, interact and support life (e.g., influence of the ocean on ecosystems, landform shape, and climate; influence of the atmosphere on landforms and ecosystems through weather and climate; influence of mountain ranges on winds and clouds in the atmosphere).

SC15.5.15 Identify the distribution of freshwater and saltwater on Earth (e.g., oceans, lakes, rivers, glaciers, ground water, polar ice caps) and construct a graphical representation depicting the amounts and percentages found in different reservoirs.
SC15.5.16 Collect and organize scientific ideas that individuals and communities can use to protect Earth's natural resources and its environment (e.g., terracing land to prevent soil erosion, utilizing no-till farming to improve soil fertility, regulating emissions from factories and automobiles to reduce air pollution, recycling to reduce overuse of landfill areas).
SC15.5.17 Design solutions, test, and revise a process for cleaning a polluted environment (e.g., simulating an oil spill in the ocean or a flood in a city and creating a solution for containment and/or cleanup).*