

Carl Sandburg Middle School, Fairfax County Public Schools  
Grade 8 Physical Science – Investigating Matter and Energy  
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## Syllabus

*Investigating Matter and Energy* is a physical science course that introduces students to basic concepts in chemistry and physics. The curriculum consists mainly of hands-on laboratory activities specifically designed to prepare students to pass both the FCPS Promotion Benchmarks and Virginia Standards of Learning (SOL) test.

### Grading Policy

A point-based grading system will be used to determine quarter grades. All graded assignments will be worth a specific number of points; point values will vary depending upon the type of assignment. Laboratory activities, quizzes, and unit tests will be the major criteria used to assess student performance. Special projects (e.g., building a model atom) will be assigned as necessary. Late work will not be accepted.

A three-step process will be used to calculate quarter grades:

1. Determine the total number of points actually earned (a);
2. Determine the total number of possible points (b);
3. Divide the number of points actually earned (a) by the total number of possible points (b); multiply the quotient by 100 to convert this number to a percentage grade [ $a/b \times 100 = \%$ ]. Letter grades will be assigned using the FCPS Grading Scale (shown lower left).

Quarter Grades		Final Grade	
A	94–100	A	4.0
B+	90-93	B+	3.5
B	84-89	B	3.0
C+	80-83	C+	2.5
C	74-79	C	2.0
D+	70-73	D+	1.5
D	64-69	D	1.0
F	0-63	F	0

The following procedure will be used to determine the final grade for the year: Percentage grades for the four quarters will be averaged to determine the final letter grade for the year; performance trend may be used to scale letter grades up or down accordingly.

## Basal Instructional Materials

Textbook: *Holt Science & Technology - Physical Science*, Copyright © 2005 Holt, Rinehart and Winston

Student Lab Guides, Instructional Services Department, Fairfax County Public Schools (replacement copies available for \$1.00 each):

- *Investigating Matter and Its Changes* (1<sup>st</sup> Quarter)
- *Investigating Energy and Its Transformations* (2<sup>nd</sup> Quarter)
- *Investigating Matter and Temperature* (3<sup>rd</sup> Quarter)
- *Investigating Forces and Motion* (4<sup>th</sup> Quarter)

## General Expectations

Every student is expected to aspire to the highest standards of behavior and to perform at his/her highest level of academic ability. Students should be prepared for class every day: Bring a three-ring binder for science (including Student Lab Guide); paper; pencil; and a four-function calculator. Students should be mentally prepared to work and use class time wisely. It is strongly recommended that students use their Student Handbook ("planner") to get organized and keep track of day-to-day instructional assignments. Appropriate behavior—a prerequisite for effective teaching and learning—is expected at all times.

In laboratory situations, safety is the highest priority. Students are expected to clean up after themselves, return equipment to storage areas, and leave their workstation ready for the next class.

## Rules of Conduct and Disciplinary Procedures

The following rules of conduct shall be observed in class at all times:

- Be polite. Be considerate of others. Be as good a listener as you are a speaker.
- Food, gum, or candy is not allowed in class.
- Do not throw anything at any time!

The following misbehaviors will not be tolerated and will be dealt with in accordance with the *FCPS Student Responsibilities and Rights* booklet:

- Petty vandalism, such as writing on books, lab tables, walls, etc.
- Vandalism to or theft of laboratory equipment.

## Attendance, Absences, and Make-up Work

Students are expected to attend class every day, on time. Students should be in their assigned seat when the tardy bell rings. Within reason, the four minutes between classes should be used for getting a drink of water, using the restroom, etc. Attendance will be taken during the first few minutes of class; students should use this time to prepare for class (i.e., get out science notebook, sharpen pencils, etc.)

For excused absences, students will be given the opportunity to make up work missed in class. The responsibility for initiating the make-up work rests solely with the student. Immediately following an absence, students should make an appointment to see me outside of class to obtain make-up work. After obtaining the make-up assignment(s), students have one day for every day absent plus one (except in the case of tests & quizzes) to complete the assignment. If the assignment has not been completed within this time limit, then a “0” will be recorded in the grade book. Tests and quizzes are usually announced well in advance of the exam date—if a student misses only the day before a test or quiz, or misses only the actual day of the test/quiz, then he/she will be expected to take the exam the next day he/she attends school.

For unexcused absences, the instructor is under no obligation to provide make-up work. Students forfeit daily class participation points for each day of unexcused absence. On the third unexcused absence, students automatically fail for the quarter.

### Homework

Homework will be assigned on an as-needed basis; check the “Course Calendar” for weekly updates. Daily homework assignments should not be necessary—we “learn by doing” in class. That said, students are encouraged to read and/or review the textbook, student lab guide, and class notes in preparation for periodic quizzes and unit tests.

### Outside Help

Students should make an appointment to see me for help outside of class. Due to other responsibilities, I will be available to meet with students after school by appointment only. I am usually available during the 10 minutes before 1<sup>st</sup> period (many problems are relatively small and can be solved quickly), or by appointment.