Harris County-Carver Middle School
8th Grade Physical Science Syllabus
Teacher: Mrs. J. Smith
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Please keep this syllabus in the front of your notebook at all times.

Infinite Campus: All students with internet access are encouraged to become registered users of Infinite Campus so that you may keep up with your grades in all classes. Parents may register then access this information by going to our schools website and click the quick link for Parent Portal. Students should check grades and missing assignments at least once a week.

Google Classroom: Students will join my Google Classroom, using their student google account, 23lastnamefirstinitial@harriscountyschools.org. Lesson presentations, warmups, assignments, projects, and classroom documents will be accessed daily.

Remind 101: Students will be expected to have Remind 101 as I rely on this for direct & important news concerning projects, HW, due dates, etc.

Conference Period: By appointment through the counselor's office (706) 628-4951.

Course Description: The eighth grade Science program is designed to develop a student's understanding of physical science concepts and how it relates to the world around them. This course acts as a bridge between previously learned concepts and new material to higher level concepts presented at the high school. The curriculum is taught using a variety of modalities to include investigations, technology, and research-based presentations.

Recommended Supplies:
½ -inch 3 ring binder - most work will be done using on-line resources - a large binder is NOT necessary
Wide-ruled paper
Black/blue ink pens - Moving away from pencils
highlighter

Units of Instruction:

1st 9 Weeks: Matter & Forces in Nature-
S8P1. Structure and Properties of Matter
S8P5. a, c Electric, Magnetic, and Gravitational Forces

2nd 9 Weeks: Force and Motion-
S8P5. c, b Forces in Nature; Static Electricity
S8P3. Motion
S8P2. a, b Potential & Kinetic Energy

3rd 9 Weeks: Energy in Motion-
S8P2. c, d Energy Forms and Transformations; Heat Transfer
S8P4. Waves

Grading Schedule: (could change)

*Test/Quizzes	30%
*Labs/Class	45%
*Homework	15%
*9 Weeks Exam	10%

Curriculum meets all National Science Standards and correlates to the Georgia Standards of Excellence. https://www.georgiastandards.org/Georgia-Standards/Pages/Science.aspx . A summary is on the back.

Georgia Standards of Excellence Summary

S8P1. Matter
a. Pure substances (elements & compounds) and mixtures (homogeneous & heterogeneous).
b. States of Matter (solid, liquid, gas, plasma), phase changes.
c. Chemical & physical properties (including density).
d. Chemical & physical changes and evidence a chemical change has occurred.
e. Atoms & identifying patterns in the periodic table.
f. Law of Conservation of Matter & balancing chemical equations.

S8P2. Energy
a. Kinetic energy and potential energy.
b. Kinetic and potential energy transformations.
c. Forms of energy (MR HC GENES) and energy transformations.
d. Heat transfer (conduction, convection, radiation).

S8P3. Motion
a. Speed, velocity, acceleration, and motion graphs.
b. Newton's Laws of Motion, balanced and unbalanced forces.
c. The relationship between force, mass, and acceleration (F=ma, Newton's 2nd Law).

S8P4. Waves
a. Similarities and differences between electromagnetic and mechanical waves and the wave parts.
b. Relationship between the electromagnetic spectrum and energy.
c. Practical uses (communication, medical, military) of the electromagnetic spectrum.
d. Reflection, refraction, absorption, diffraction of light and sound waves through various materials, and how we see color.
e. Wave speed through different mediums (light vs. sound).
f. Wave properties (frequency, amplitude, wavelength) and energy.
g. Lenses: concave & convex.

S8P5. Forces in Nature
a. Magnetic, electric, and gravitational fields.
b. Static charge/electricity: conduction, induction, friction, and distribution of charges in conductors and insulators.
c. Factors that affect the strength of magnetic, electric, and gravitational forces (including electromagnets, generators and motors).