Physical Science

Mrs. Eaton

Carmichael Middle School 2002-2003

Course Description

Students use scientific investigations to expand their understanding of physical science around them, while applying their knowledge to solve problems about real life situations. Students will use a variety of methods to effectively communicate their understanding of physical science.

Course Objectives/Outline

The student will know what scientific inquiry is

The student will understand what scientific inquiry is

The student will understand the skills and processes of scientific investigation

The student will understand the nature and context of science and technology.

The student will be able describe the positions relative speeds and changes of speed in objects

The student will be able to describe sound, water, waves, and light, using wave properties such as, wave length, reflection, refraction, transmission, absorption, scattering, and interference..

The student will be able to understand that energy is a property of substances and systems and comes in many forms including stored energy, energy of motion, and heat energy such as heat, light, electrical, mechanical, sound, nuclear, and chemical.

The student will be able to determine that the factors that affect rate and amount of energy transfer, associate a decrease in one form of energy with an increase in another.

The student will be able to understand that all matter is made up of atoms, which may be combined in various kinds, ways, and numbers.

The student will be able to understand physical and chemical changes at the particle level, and know that matter is conserved.

The student will be able to know the factors that determine the strength of the various forces.

The student will be able to understand the effects of balanced and unbalanced forces on the motion of objects along a straight line.

The student will be able to explain the basis for the structure and use of the periodic table.

Course Materials

Textbooks
GLENCOE SCIENCE: Physical Science
Prentice Hall SCIENCE: The Nature of Science (If Available)
Prentice Hall SCIENCE: Chemistry (If Available)

Videos/Kits
Bill Nye Series
Foss Kit: Electronics (?)

Evaluation/ Grading
Participation Points 40% of the Grade:
The students will be expected to participate daily in class.
Each student will present an oral research report.
The student will be expected to develop a science project
The students will need to bring their assigned textbook daily.
The student needs to bring at least two sharpened pencils, a correcting pen, a high lighter and a set of colored pencils daily.
The student is expected to treat others respectfully by using appropriate volume or not speaking when the class is informed to work silently. The students also need to speak kindly to each other and their teachers when asking questions or conversing.
The student is expected to be in class on time.
If the student is absent the student is responsible to make up the missed work. They should call the
The student needs to participate in classroom activities and Laboratory assignments 30% of their grade. If the student does not complete the work in class then it is expected that the student will complete the work at home. There will always be a written report required for each laboratory assignment.

20% of the Grade is On Going Assessment, which is the work that the student is completing in order to understand the concepts being taught.

40% of the Grade is Cumulative Assessment, which is the end project that the student compiles to show that they have learned the concept. This is the Science Fair Project and the oral Presentation. We will follow all of the National Science and Engineering Fair guidelines to help walk the students through the Inquiry process. **All students must dress their best when presenting their projects.**

Behavioral Expectations

All students need to listen when the instructor is sharing information, sit in assigned seats when they are given, participate in class activities and follow instructions. Students will be expected to participate in laboratory activities and clean up after themselves when the class is finished. The student must dress their best.

When on field trips the students must obey all instructions or parents will be called to come and pick their child up from the field trip.

Each student must use appropriate volume and speak respectfully to others. Hand in any homework on time including laboratory written reports. If a student chooses to disobey the rules the student will lose the responsibility points for that day. If the student continues to disregard the rules of the class the student's parents will be contacted. If there are three infractions a form letter will be sent home to the parents to inform them of the situation. If the student continues in the same behavior the referral process as set up by the school will be followed.

Contacting Mrs. Eaton

If you would like to discuss your child's progress with me you may call me at the school Monday through Friday 2:45-4:00 p.m.. Before school will be setting up the Science classes. If you call the school in the morning before Third Period, my planning period, then I will call you back as soon as I can. You may email me at laurie_eaton@rsd.edu