Honors Physical Science

It is very exciting that you have chosen to take Honors Physical Science! We will work very hard in this class, but I am here to help you every step of the way. I hope you will enjoy your time in Science Class. I am looking forward to a fantastic year!

There is no summer work for this class. I encourage you to keep your mind busy playing outside, reading things you love, spending time with your family, and finding ways to positively impact your community. Be ready to hit the ground running this fall!

Materials you will need for class:

- Three Ring Binder (or section)
- Calculator (scientific calculator is fine)
- Pencil and Pen
- Paper
- Notecards
- Colored Pencils
- Dry Erase Marker for you to use

Classroom Donation Wishlist

- Dry Erase Markers (lots☺)
- Clorox Wipes and GermX
- Colored Pencils
- Crayons
- Wooden Pencils
- Tissues
- Ziploc Bags
- Glue

Teacher Introduction

I have been teaching for 12 years and have been here at Daniel for six. I am a Daniel graduate and attended Southern Wesleyan University. I ran Cross Country, both in high school and college, and now I serve as the Girls Cross Country Coach. My husband, Chad, teaches at Edwards Middle School and coaches the Girls Soccer Team here at Daniel. We have three kids, Charlie, Ceci, and David. I enjoy spending time with family, being outside, all sports, and reading. I really love teaching and look forward to getting to know a new bunch of students and families this fall!

Enjoy your summer!
Mrs. Perry

Topics for exploration in Physical Science*

A. Inquiry - Chapter 1
    1. Describe general safety guidelines for the science laboratory.
    2. Describe and use different problem solving methods.
    3. Describe the scientific method.
    4. Perform basic measurements of mass, length, and temperature using appropriate tools.
    5. Construct and interpret a graph.
    6. Describe the properties of density.
B. Matter – Chapters 2.2-2.3 and 3
    1. Describe the properties of matter.
    2. State the kinetic theory of matter and apply it to the four states of matter.
    3. Identify and describe the change of states of matter.
C. Classification – Chapter 2.1
    1. Distinguish between mixtures, solutions, suspensions, and colloids.
    2. Identify the solute and solvent of a solution.
D. Atoms and the Periodic Table – Chapter 4 and 5
    1. Describe the early models of the atom.
    2. Describe the structure of the atom.
    3. Interpret and use the periodic table.
E. Radioactivity - Chapter 10
    1. Explain the cause of radioactivity.
    2. Explain the applications of radioactivity.
F. Compounds, Bonding and Reactions - Chapter 6
    1. Distinguish between an element and a compound.
    2. Describe how ionic and covalent bonds are formed.
    3. Name and write formulas for simple compounds.
    4. Use the periodic table to describe the properties of metal groups.
G. Chemical Equations - Chapter 7
    1. Balance chemical equations.
    2. Distinguish between the four types of chemical reactions.
H. Speed, Acceleration and Newton's Laws - Chapters 11 and 12
    1. Identify and measure speed and acceleration.
    2. Identify and measure the major forces.
    3. Distinguish between mass and weight.
    4. Explain and list examples of Newton's Three Laws of Motion.
I. Energy - Chapters 15 and 16
    1. Distinguish between potential and kinetic energy.
    2. Calculate work and change in thermal energy.
    3. Identify the ways heat is transferred.
J. Electricity - Chapter 20
    1. Distinguish between static and current electricity.
    2. Identify a circuit as open, closed, series, or parallel.
    3. Distinguish between amps, volts, watts, and ohms.
    4. Calculate Ohms law for combined, parallel and series circuits
    5. Calculate Power and Energy
K. Electromagnetic Spectrum and Waves - Chapter 18 and 19
    1. Explain the parts of the electromagnetic spectrum.
    2. Discuss the wave nature of light as it applies to color, mirrors, lenses, lasers, and optical fibers.

*subject to change