8th Grade Science
Mr. Dixon & Mr. Cahill

Need To Contact Me?

Email: maverick.dixon@fayette.kyschools.us

Scott.cahill@fayette.kyschools.us

Phone: 859-381-3533

Ext. 41449 (Dixon)

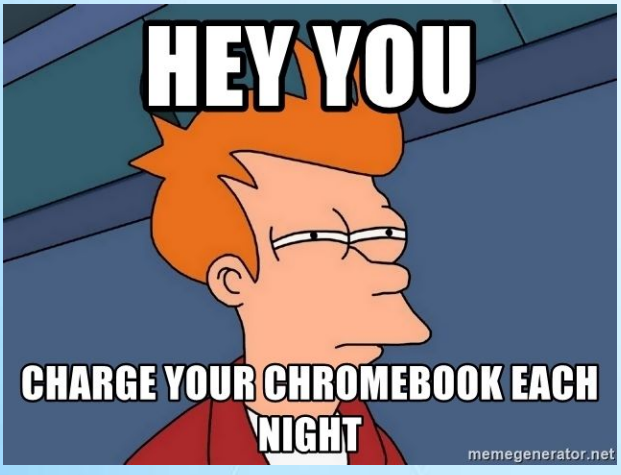
Ext. 41448 (Cahill)

About This Course....

This course will explore the science concepts set forth in the Next Generation Science Standards for 8th grade. A short list of topics and activities is attached to the end of this document. Fayette County has also adopted Amplify Science, which is designed to give students engaging, realistic experiences that mirror how scientists and engineers actually work. Amplify Science is organized around units where students are introduced to compelling phenomena and real-world problems. They then develop and strengthen claims by collecting evidence and testing assumptions, and apply their learning in new contexts. In this class, students will participate in many hands-on activities and experiments to enhance their love of learning and to make science fun. I am excited to be your teacher and I promise to provide a fun and interesting learning environment.

Class Expectations

1. Follow all instructions in class.
2. Keep hands, feet and objects to yourself.
3. Be respectful to others at all times.
4. Be on time and be prepared for class.
5. ~~10 and 10~~



Class Materials

- Chromebook (or other device), charger, headphones and access to the internet.
- $15.00 Science Fee (This will be collected when you return to school)
- All of our work will be on Amplify or placed directly into Canvas.

Grading Policy

- Standard Fayette County grading will be used
  90 - 100% A; 80 - 89% B, 70 - 79% C, 60 - 69% D, <60% F

- Students will be given a minimum of 2 days to complete assignments. Points can be taken off for late assignments.

- Class Grade will be weighted:
  60% Tests, Labs, Quizzes, and Projects
  40% Homework, Classwork, and Science Notebook

Course Objectives

1. Scientific Method: This year will focus more on using multiple test designs to solve a problem.

2. Microbiomes: Findings about the human microbiome are all over the news and are attracting the attention of scientists from many different fields–for good reason! There is evidence to suggest that the approximately 100 trillion bacteria living on and in the human body may correlate to many different health conditions. Further, altering one's microbiome can result in altering one's health, for better or worse.

3. Force and Motion: Students apply their developing knowledge of force and motion to explain why a space pod failed to dock at the space station as planned. This unit provides students with an exciting context in which to consider forces, motion, and collisions: outer space

4. Heredity: Students will study mutations, genetics and technology, create dragons, and develop research papers on genetic mutations or the benefits/problems with cloning.

5. Natural Selection: Students will study how the differences in populations arise, look at fossil records to show how organisms have changed over time, and use mathematical representations to explain these changes.

6. Evolutionary History: Students will use fossils to explain how organisms change over time.

7. Earth's Changing Climate: Students will be researching the evidence of global temperature changes over the past 100 years.

8. Student Internships: For three units (Earth's changing climate, Force and Motion, and Natural Selection) students will take on the role of a scientist and be given a scenario to solve, such as creating a tsunami warning system.