If you are able to follow directions and be respectful, you will undoubtedly be successful in 8th grade science! Keep in mind that with block scheduling, you only have Science for half of the year. Be sure to stay current with all of your work, and be in school everyday. Be sure to check Homework Hero, or call a reliable classmate for work if you are absent. Class and home assignments will be listed on Homework Hero daily. Be aware that many in class activities are hands on projects which you need to be present to complete and receive credit for!

For eighth grade Science, we will use Foss Kits on the following topics: the Human Brain and Senses, Populations and Ecosystems, and Electronics. As supplemental resources, we will be using the Holt, Rinehart and Winston textbooks on these topics for reference and deeper understanding. This course has been designed to incorporate the inquiry method of learning, where you will regularly be actively engaged in the learning process. In addition, you may receive and be responsible for notes or handouts, which will enhance your understanding of the science concepts taught throughout this class.

For this class, you are expected to come prepared with the following items:

- A notebook
- Corresponding Lab Book (if applicable)
- Paper to hand in assignments
- Folder for any handouts
- Black/blue pen or pencil (no other colored pens are acceptable)

Foss Units Outlined:

- **The Human Brain and Senses Course** emphasizes the relationship between structure and function in the human sensory and nervous system. You will investigate how the brain and senses acquire, interpret, and respond to information. There will be an emphasis on vision and touch which leads to investigations of the structure and function of the sensory organs and the brain itself. Images, such as MRI and EEG’s are used to reveal brain anatomy and activity. Throughout this unit we will also explore learning, memory, and sensory dysfunction.

- **The Populations and Ecosystems Unit** explores ecosystems as the largest organizational unit of life on Earth, defined by its physical environment and the organisms that live in the physical environment. You will learn that every organism has a role to play in its ecosystem and has structures and behaviors that allow it to survive. As a class, we will raise populations of organisms to discover population dynamics and interactions over a range of conditions. In addition, you will learn that food is the source of energy used by all life forms in all ecosystems to conduct life processes. Reproduction, including limiting factors, heredity and natural selection are explored as ways to understand both the similarity and the variation within and between species.

- **The Electronics Unit** emphasizes the electrical energy and its use in technology. You will learn fundamental electrical circuitry and basic electronic principles. You will make simple and complex circuits, quantify electrical interactions and properties such as current, voltage, resistance, using a digital multimeter, and discover how different components affect circuits (resistors, diodes, LEDs,
capacitors, transistors). In addition you will make and read schematics and construct solid-state devices.

(Summaries were adapted from the official site for inquiry-based FOSS science curriculum: http://www.fossweb.com/).

Breakdown of 8th Grade Science:

CLASSWORK AND HOMEWORK
These assignments will be given as needed to compliment our work. Some of these assignments will be collected, others checked for completion. Please be prepared to hand in an assignment at any time. **You will not always know when I will collect or check the work, so be sure to complete ALL assignments!** Pre-classwork is given at the start of each class- these may be collected or checked as well!

TESTS AND QUIZZES
Most of the concepts tested will come from in-class activities, handouts, and discussions. Notes must be kept on these discussions. **Tests and Quizzes are usually announced ahead of time,** with plenty of time for preparation. I will give a FULL review of the tested materials 1-2 days before a test or quiz. You will NOT be permitted to use books or notes unless I specify differently. Testing days will usually be either Tuesday or Thursdays and will be announced ahead of time. Note: You will also be assessed on your performance during labs in-class. You will receive credit for participation and completion of lab reports.

PROJECTS
If the project is to be completed at home, you will get a project outline sheet to take home. In class projects will be outlined in the classroom. Note: Every student is required to complete the Science Fair this year and it will be factored into your overall Science Grade.

MISSED ASSIGNMENTS
All work is expected to be completed on time. If an emergency arises, late work will only be accepted with a note from home. No work will be accepted without a note from a parent/guardian!

SCIENCE GRADING
Tests 40%
Projects 20%
Quizzes 10%
Classwork (Participation) 5%
Homework 10%
Labs 15%