



Dear Parent or Guardian,

We would like to welcome you and your child to Advanced Chemistry this year. We look forward to working with your child and have an exciting year ahead of us. The structure of this class is a mixture of lecture, discussion, demonstration, group activities, and laboratory exercises. Several labs this year will be using the Argument-Driven Inquiry model, or ADI. ADI models the scientific publication process by requiring students to design their own investigations to answer big idea science questions. Emphasis will be on critical reading, designing experiments, collecting data, analyzing data, evaluating arguments, providing peer feedback, and writing conclusions. To be successful, these labs, as well as this course, require your child to be prepared and organized.

We will begin this year with reviewing laboratory safety and scientific investigations, and then move quickly into learning about the following topics:

- Classify Matter through investigation of its properties
- Differentiate between physical and chemical changes and properties
- Identify extensive and intensive properties
- Express and manipulate chemical quantities using scientific conventions and mathematical procedures.
- Explain the historical development of the Periodic Table.
- Research the development of the modern atomic theory.
- Describe types of nuclear radiation.
- Write and balance nuclear equations.
- Define and use the concept of a mole.

If your child struggles with any material taught during this unit then we would urge you to make sure your child attends tutoring for assistance to gain a better understanding and demonstrate mastery. If you have any questions or concerns, please do not hesitate to contact your child's teacher. We look forward to your child's success in Chemistry Advanced this year.

Sincerely,

Eagle Mountain-Saginaw Advanced Chemistry Teachers

