EAGLE MOUNTAIN SAGINAW ISD
Curriculum and Instruction

Dear Advanced Computer Science Parent or Guardian,

I would like to welcome your student to Advanced Computer Science. I look forward to working with your student and we have an exciting year ahead of us. The structure of this class is a mixture of lecture, discussion, demonstration, and programming exercises we will refer to as labs.

During the first six weeks of Advanced Computer Science, we will be covering creative computing. There are many different tools that can be used for creative computing. We use Scratch, which is a free computer programming language provided by MIT and available at https://scratch.mit.edu. With Scratch, people can create a wide variety of interactive media projects—animations, stories, games, and more. The activities we will complete with Scratch are designed to support familiarity and increasing fluency with computational creativity and computational thinking, while building on students' creativity and personal interests. In particular, the activities encourage exploration of key computational thinking concepts (sequence, loops, parallelism, events, conditionals, operators, data) and key computational thinking practices (experimenting and iterating, testing and debugging, reusing and remixing, abstracting and modularizing).

This unit will lay the foundation for the entire year in Advanced Computer Science, and it is essential for your student's success in this course to have a firm foundation in creative computing and programming basics in preparation to take AP Computer Science. You can expect that your student could have homework on a nightly basis. Please encourage your student to attend tutorials so that your student can find success in Advanced Computer Science. Your student should be reviewing new material and completing online labs well before the eve of the test. Students will be given adequate notice about tests dates. I have posted these dates in Canvas, which is the online course management website for students. In addition, students will be accessing lessons and study materials through the Code.org website.

I have several goals for the students in Advanced Computer Science: (1) develop computational thinking skills, (2) design their own algorithms, (3) solve real-life problems and (4) be prepared to take AP Computer Science A. I would encourage your student to take AP Computer Science A after successfully completing this course. We will be building toward this goal during this year and your students should plan on taking this step.

I would appreciate your help in furthering these goals. If your child struggles with any material taught during this term, I 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 me. I look forward to your child's success in Advanced Computer Science this year!

Sincerely,

Eagle Mountain-Saginaw ISD Advanced Computer Science Teachers