COMPUTER SCIENCE INVESTIGATIONS

Computer Science Investigations introduces students to the breadth of the field of computer science through an exploration of engaging and accessible topics. The course is designed to focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems. The goal of this course is to develop in students the computational thinking practices of algorithm development, problem solving and programming within the context of problems that are relevant to the lives of today's students. Students will also be introduced to topics such as computing systems, networks, data & analysis, limits of computers and societal and ethical issues.

- CS Investigations Practices – Students will develop high-level skills and dispositions throughout the course.
- Computing Systems – Students ill understand that computing systems are made up of a variety of computing components that collect, store analyze, and act upon information in ways that can affect human capabilities both positively and negatively.
- Networks & the Internet – Students will understand that networks connect computing systems to share information and resources which are an increasingly integral part of computing.
- Impacts of Computing – Students will realize the effects that computing has on daily life in both positive and negative ways.
- Problem Solving & Programming – Students will understand that an algorithm is a sequence of steps designed to accomplish a specific task.
- Data & Analysis – Students will recognize data exists in many formats and computing systems are used to process that data.