TECHNOLOGIES: DIGITAL

ELECTIVE SUBJECT: One Semester

WHY STUDY DIGITAL DESIGN?

Digital Technologies enrich and impact on the lives of people and societies globally. Digital Technologies, in their development and use, are influenced by and can play an important role in transforming, restoring and sustaining our societies and our natural, managed, and digital environments. The Technologies learning area draws together the distinct but related subjects of Design Technologies and Digital Technologies. The Australian Curriculum: Digital Technologies will ensure that all students benefit from learning about and working with traditional, contemporary and emerging technologies that shape the world in which we live.

COURSE AIMS:
Digital Technologies aim to develop the knowledge, understanding and skills to ensure that individual and collaboratively students:

- designs are creative, innovative and enterprising when using traditional, contemporary and emerging digital technologies and understand how technologies have developed over time
- frame problems and create solutions using the computational thinking concepts of abstraction; data collection, representation and interpretation; specification, algorithms and implementation; digital systems; and interactions and impact of solutions
- use digital systems to efficiently and effectively automate the transformation of data into information and to creatively communicate ideas in a range of formal and informal settings
- apply protocols and legal practices that support safe, ethical and respectful communications and collaboration with known and unknown audiences when developing social and intellectual capital
- monitor, analyse, predict and shape the interactions within and between information systems and the impact on individuals societies, economies and environments

COURSE ORGANISATION:
The study of Technologies in Computers can be studied across one semester. The level of work and understanding increases as students move through future Digital Computer units. Students build on previous knowledge to complete more complex programming and production scenarios.
Through the use of online tutorials, guided instruction and problem solving, students will design and produce computer games, learning about cyber safety and how to protect themselves on-line and computer literacy techniques that will assist them in their future studies and the workplace. Students will also learn the base concepts of coding through solving computer problems. Skills that students will develop include problem solving, logic and syntax development.

They will begin to program computer games using drag and drop to complete the challenges. Students will learn logical sequencing to achieve the desired outcome. A variety of tasks will be given over the semester.

**Assessment**

Assessment will be completed in class utilising the software that is provided in the computer labs. Students will complete a variety of tasks with a focus on one major challenge per term involving a detailed design write up as well as digital computer theory involved in the product being designed.