

# Technology Course & Standards

Technology courses address Creekside high School's Expected School learning results (ESLRs) with an emphasis on *Effective Communicators, Strategic Thinkers, Healthy Self-Directed Individuals & Contributing 21<sup>st</sup> Century Citizens*

## Computer Graphics A/B

The Graphic Arts Technology Pathway Standards and Computer Graphics A/B provide students with an understanding of manufacturing processes/systems common to careers in graphic arts and printing technology that include printing, art/copy preparation, graphic design, image generation/assembly, reproduction photography, graphic reproduction operations, binding/finishing related to digital imaging, lithography, and screen printing.

### **A1.0 Students understand the application of basic graphic art design principles to achieve specific goals:**

A1.1 Produce sketches, rough layouts, and comprehensive layouts for a printed product by using design principles to guide the process.

A1.2 Evaluate graphic arts copies, designs, and layouts for proper grammar, punctuation, and adherence to specifications.

### **A2.0 Students understand graphic arts functions and copy preparation, including applications of desktop publishing and electronic imaging software:**

A2.1 Know variables related to graphic art and copy preparation.

A2.2 Know how to produce single and multicolor images used for reproducing printed products.

A2.3 Know desktop publishing/electronic imaging software principles and/processes used to prepare graphic arts products.

A2.4 Produce a printed product with the use of desktop publishing and electronic imaging software.

### **A3.0 Students understand image generation processes and procedures required to reproduce single-color and multicolor printing:**

A3.1 Know the principles and processes used to prepare artwork for graphic art reproduction.

A3.2 Produce line, halftone, and special-effect images required for graphic art reproduction products.

### **A4.0 Students understand the processes and procedures involved in producing image carriers for the reproduction of single-color and multicolor products:**

A4.1 Understand the process for creating image carriers for graphic art reproduction and printing.

A4.2 Produce image carriers for single-color and multicolor products.

### **A5.0 Students understand the functions, processes, and procedures required for the reproduction of printed products and the factors affecting the image transfer process:**

A5.1 Know how various processes may be used to produce multiple-imaged copies.

A5.2 Understand the variables that affect the image transfer process.

A5.3 Produce single-color and multicolor products with a minimum of waste.

### **A6.0 Students understand the binding and finishing processes:**

A6.1 Know the functions and importance of binding and finishing operations in the production of printed products.

A6.2 Bind and finish notepads, brochures, booklets, business cards, and other printed products.

### **A7.0 Students understand the screen-printing process:**

A7.1 Know the materials and operations used in screen printing. A7.2 Know various applications of screen printing.

A7.3 Print products on various substrates by using appropriate inks and procedures.

### **A8.0 Students understand contemporary photography and its applications:**

A8.1 Understand current photographic technologies, processes, and materials used in the graphic arts.

A8.2 Produce black-and-white and color images under natural and studio lighting conditions.

### **A9.0 Students understand the proper health and safety procedures and guidelines for the graphic arts environment, including the storage and recycling of raw materials and waste products:**

A9.1 Understand the health and safety precautions required in graphic communications laboratories.

A9.2 Know the Occupational Safety and Health Administration rules and procedures for storing and using graphic arts materials and chemicals, the classification of recorded graphic arts environment fires, and fire-fighting treatments for those classifications.

A9.3 Know the rules and responsibilities of the various governmental safety agencies that regulate and influence the graphics arts manufacturing industry.