Unit 5: Graphic Design

Content Area: **Technology**
Course(s):
Time Period: **November**
Length: **2 weeks**
Status: **Published**

Enduring Understandings

- Typography influences the effectiveness of a product or presentation.
- Graphic communication is used and commonly understood worldwide.
- The ability to create, save, retrieve, and produce digital work is essential in the workplace.
- Package design, logos and marketing images influence consumers reactions to new products and services.

Essential Questions

- What is graphic communication?
- Where do we see it?
- Why is it useful?
- What are the various file extensions of graphic images?
- What is the difference between them?
- What is packaging engineering?
- What type of work do graphic designers produce?
- What programs do they use?
- What considerations are made when designing a package?
- What factors influence your purchases and ties to sports teams or services?

Content

Skills

- Students will be able to design packaging for a product.
- Students will be able to create a digital image or logo.
- Students will be able to identify and distinguish between various digital image file formats.
- Students will be able to recognize and identify different font families and explain how typography influences the effectiveness of designs and products.

Suggested Activities: Package Design & Redesign Button/Logo Design

Resources

1. PC or Laptops with internet access, able to run Adobe Illustrator (or similar program) and the various 3D printer software platforms.

2. Laser Printer allows for printing capabilities from classroom computers.

3. TinkerCAD (or other equivalent solid modeling program). TinkerCAD is a free, web-based 3D modelling application which allows users to create objects utilizing constructive solid geometry applications.

4. 3D Printers allow students to realize their designs by producing physical objects from their three-dimensional digital models.

5. Adobe Illustrator & Photoshop are industry recognized graphic art software programs. Adobe presently offers a creative cloud suite for education.

6. Vacuum forming machine is a simplified version of thermoforming. In this process, a sheet of plastic is heated then stretched over a preformed mold. The plastic is then shaped into the shape of the mold. This machine allows for exciting project based learning opportunities in the Manufacturing and Production unit.

7. Drill press and bandsaw are presently located in the Technology Workshop, the machines are fixed and utilized only with teacher supervision and proper safety testing accomplished.

8. Consumable Materials such as bass and balsa wood, foam, hot glue, project kits, aluminum foil, wax paper, balloons, fishing line, cups and other materials are needed to support project based learning. Suggested projects include building a model architectural structure, room or facility, bridge, tower, aircraft and more.

9. Personal protection equipment such as safety goggles and gloves are required when students are at risk of injuring themselves while creating projects or utilizing tools and/or machinery.

10. Hand Tools various hand tools such as easy cutters, coping saws, craft knives, hot glue guns and hot wire cutting machine will be utilized within the classroom. Safety precautions and training will be taken and provided at all times.

Standards

TECH.8.2.8.A.5	Describe how resources such as material, energy, information, time, tools, people, and capital contribute to a technological product or system.
TECH.8.2.8.C.8	Develop a proposal for a chosen solution that include models (physical, graphical or mathematical) to communicate the solution to peers.
TECH.8.2.8.E.1	Identify ways computers are used that have had an impact across the range of human activity and within different careers where they are used.
TECH.8.2.8.E.2	Demonstrate an understanding of the relationship between hardware and software.
TECH.8.2.8.E.4	Use appropriate terms in conversation (e.g., programming, language, data, RAM, ROM, Boolean logic terms).