

## **COURSE OUTLINE**

**SUBJECT:** Design

**GRADE:** 6

### **COURSE DESCRIPTION**

The goal of the middle school technology curriculum is to give students an introduction to Design. Students will begin by learning the basic vocabulary that will follow them through their final year in eighth grade. Through the course students will be introduced to a variety of hands-on experiences. Then in eighth grade students will culminate with an industry standard drafting program that will aid in their understanding of engineering principles.

The 6<sup>th</sup> grade curriculum is based primarily on hands-on, interactive projects. The students this year will be learning a new program called TinkerCAD. This program is an introductory level 3d design program that will allow students to easily design a piece and then send it to our 3D printers.

### **ANTICIPATED STUDENT OUTCOMES –**

*By the end of the semester, students in this class will be able demonstrate the following competencies:*

(The notation in parenthesis refers to the New York State Learning Standard to which that competency is linked.)

- Use the standard computer keyboard effectively and efficiently (MST 2,5)
- Draw and read simple multi-view technical drawings (MST 1,2,3,5,7)
- Apply a basic planning process to a project activity (1,2,3,5,7)
- Describe and use the systems model (MST1,4,5,6,7)
- Understand the need for and demonstrate safety in the Technology lab (MST )
- Identify turning points in the history and evolution of technology (MST 2,5)

### **MATERIALS:**

2 – 9 Volt batteries (Energizer or Duracell)

### **CRITERIA for ASSESSMENT**

- Participation in class
- Projects

### **Opportunities for Enrichment:**

Students that excel in Design will be given opportunities to lead activities, to work with other computer programs appropriate to their interests. Enrichment activities will not be graded. Students in need of extra help or additional time to complete assignments are expected to seek assistance and to come for T-periods.