

COURSE OUTLINE

SUBJECT: Design

GRADE: 8

COURSE DESCRIPTION

The goal of the middle school technology curriculum is to give students an introduction to technology. Students will begin by learning the basic vocabulary that will follow them through their final year in eighth grade. Through the course students will begin a state of the art modular laboratory program that will allow for 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.

This course will provide your child with an industry standard drafting program. This program will allow them to go from design to production, and cost accounting for projects ranging from a metal box to a full size home.

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.

Technology is one of our district goals, and is a subject that changes exponentially. Digital cameras have had some big innovations in recent years and are in common use. However our students will be taking there “point and shoot skills” to a higher level by learning about types of photography, uploading to a computer, editing pictures, and making web based images.

At the beginning of quarter 4 students will be working on a multidisciplinary project that combines their knowledge of Romeo & Juliette, stop motion photography, set design and editing to create an 8th grade class film.

ANTICIPATED STUDENT OUTCOMES:

By the end of the quarter, 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)
- Use the basic functions of a AutoCAD Program (MST 1,2,3,6,7)
- Draw and read complex multi-view technical drawings (MST 1,2,3,5,7)
- Apply a basic planning process to a project activity (MST 1,2,3,5,7)
- Students will be able to use the AutoCad program efficiently and effectively (MST 2,5)
- Understand the need for and demonstrate safety in the Technology lab (MST 5)

Technical:

- Students will be able to operate and maintain a digital camera in both automatic and manual modes.
- Students will be able to download pictures from their camera disk to their personal storage area.
- Students will be able to manipulate their photos using Adobe Photo Elements
- Students will be able to determine focal length, shutter speed and aperture settings.
- Students will know when to use flash and when not to use flash.
- Students will be able to utilize photo-editing software.

Practical:

- Students will be able to digitally enhance their photos with Adobe Photo Elements.
- Students will identify appropriate settings, situations and individuals to photograph.
- Students will be able to write and print appropriate captions for final photos.

Aesthetic:

- Students will learn how “to see” as a photographer.
- Students will understand how to make a photograph that “tells” as well as “shows”.
- Students will be able to critique their own photographs and photographs taken by their classmates.
- Using Adobe Photo Elements Students will edit their work and select photos for display

MATERIALS:

1 folder

Flash Drive (1gb)

CRITERIA for ASSESSMENT

- Daily Mini Assignments
- Participation in class
- Projects
- In-class assignments
- Projects
- Class participation
- Tests/quizzes/quests

MATERIALS:

1 folder

Flash Drive (1gb)

Opportunities for Enrichment:

Students that excel in Technology 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.