

# **DOBBS FERRY MIDDLE SCHOOL**

Dobbs Ferry, New York 10522

## **COURSE OUTLINE**

**SUBJECT: Digital Design 7**

**GRADE: 7**

### **COURSE DESCRIPTION:**

The Digital Design 7 curriculum is a continued study of Computer Science. Emphasis is placed on the idea that computer science is fun, collaborative, and creative. The course is designed to motivate students to continue learning and improve real world relationships, connections, and life. The class environment is based on communal learning with importance placed on risk-taking. This course will teach students about computer science, computational thinking, and programming and will help students persevere in solving problems. It will also make the connection between mathematics and computer science.

The Digital Design 7 curriculum is based on activities from Code.org's Computer Science Fundamentals Express. Activities will further enhance students' computer science education while empowering students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. Students will also have the opportunity to explore Computer Science Discoveries - Web Development.

### **Anticipated student outcomes:**

**Grade 7 – Digital Design 7** (*meets every other day for a semester*)

*By the end of the two quarters, students will have been offered opportunities to engage in:*

- MYP Design Cycle
- Designing and making, not just listening, observing, and using.
- Activities that are personally meaningful and relevant.
- Interactions with others as audience, coaches, and co-creators.
- Review their creative practices.

### **Key Concepts Taught by this Course –**

#### **Computational Thinking Concepts**

- Sequence
- Loops
- Parallelism

- Events
- Conditionals
- Operators
- Data

### **Computational Thinking Practices**

- Experimenting and iterating
- Testing and debugging
- Reusing and remixing
- Events

### **Materials required or used:**

#### **7th Grade Digital Design**

- Charged Chromebook
- Small graph paper spiral/composition notebook
- Pencils and a manual sharpener
- Headphones/earbuds

### **Criteria for grading:**

Grades will be based on the following:

- Activities and Projects
- Class Participation
- Assessments
- Homework
- Online Performance

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*Outline developed by: Math Department (Colon)*

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