

## **Course Descriptions**

### **Studio in Art 8**

The Studio in Art 8 curriculum explores and builds upon knowledge and application of vocabulary, strategies, skills and experiences introduced in Art 7. This eighth grade course of study will meet every day for the entire school year and will satisfy NY State's high school credit requirement in The Arts.

The purpose of this course is to continue to provide a comprehensive, personalized art making experience for students while exploring different genres and media. Studio students will learn, apply and experience how to effectively and consciously employ The Elements of Art and Principles of Design.

### **Studio Music 8**

Students in the Studio Music compose their own musical pieces while learning basic skills of playing the piano keyboard and guitar. In order to accomplish this, they learn or reinforce their knowledge of the basic elements of music (rhythm, melody, harmony, texture, form, and timbre) and musical notation, utilizing analogue and digital tools. In keeping with both New York State Standards and the Middle Years Programme, students think critically about and reflect on their creative process. They develop musical and aesthetic vocabulary and hone their language skills by writing about their work and their process.

### **Food Science and Nutrition 8**

Food Science and Nutrition is designed to reinforce and enhance the student's knowledge of scientific principles and processes through the study of foods and nutrition. This course meets every other day for the entire school year. An in-depth understanding of science as it applies to foods will assist students with interest in career and technical education, to understand the food industry as well as food preparation in their daily lives. Whenever possible, students should be involved in hands-on laboratory activities which verify the scientific concepts presented. The purpose of this content topic is to explore and understand factors connecting food science to all other relevant sciences while providing the historical and scientific developments of foods in a global society. This content topic will provide opportunities for students to apply communication, leadership, management, and thinking skills to the study of Food Science and Nutrition.

### **Technology 8**

This course is an extension of Technology 7 with an emphasis on Computer Aided Design and Computer Aided Manufacturing. Students will gain an understanding of

professional level drawing, as well as the process which CAD has revolutionized. Students will be engaged in hands-on projects that involve both design and construction. Machines include: 3D Printers, Vinyl Cutting, CNC Machine, and a traditional workshop. Projects include: decals, 3D printed objects, furniture, multi-use tools, and a catapult.

## **Computer Science**

Computer Science focuses on coding in Python. Python is a text based coding platform that is used in a large variety of industries. In this course students will be working individually on a computer through a platform called KidOYO. Students will complete a variety of computer-based challenges at their own pace. Grades will be based upon the tests, quizzes, and activities that you complete on the KidOYO platform.

## **Robotics**

This course is a continuation of the 7th grade robotics unit of Exploratory. In this course students will be tasked with finding solutions to various engineering challenges. They will have to design and create structural components, while using gearing to increase motor strength. Students will design a class-sized "Rube Goldberg" machine. Lastly there will be a heavy focus on the programming of sensors and gathering data/information from the real world.