

Brandywine Heights Area School District
200 West Weis Street, Tipton, PA

8th Grade EXPLORE

Overview:

This course is designed to provide students with a hands-on learning experience that will help develop and enhance their communication, creativity, critical thinking, and collaboration skills. Students will work in teams to research, design, and build projects to solve both basic and complex tasks. They will learn how to do basic 3D cad design and create and print a 3D project. Students will also learn how to build and program LEGO robots. Students will also complete a STEM careers project.

Textbook(s) and other resources used:

Students will complete all work on their school-issued laptop. There is no textbook for this course.

Outline of Content:

EXPLORE class is 3 days out of the 6 day cycle for 2 marking periods. When students have class, this is what will be covered:

First and Third Quarter:

- Students will learn and focus on the 4 C's which are communication, collaboration, creativity, and creative thinking.
- Students will work collaboratively in groups to complete hands-on tasks and challenges.
- Students will begin to learn basic coding skills by completing online challenges.
- Students will learn basic 3D CAD design and create and print a 3D project.

Second and Fourth Quarter:

- Students will continue incorporating the 4 C's into each activity.
- Students will continue to work collaboratively in groups to complete hands-on tasks.
- Students will continue to learn basic coding skills by completing online challenges.
- Students will apply coding to LEGO robotics and complete new challenges.
- Students will be asked to complete a STEM Careers project that includes research, development, and design of a prototype to solve a real problem or to enhance a current invention.

Grading Policy

- All district gradebooks will utilize a weighted scale. Summative assessments will comprise 60% of a student's quarterly grade, and formative assessments will comprise 40%.
 - Summative assessments = a measure of student learning at the end of an instructional unit (i.e. - Tests, Quizzes, etc.)

- Formative assessments = an ongoing measure of student learning used by the teacher to guide instruction (i.e. - Classwork, Homework, etc.)