Upper Merion Area School District
Middle School Technology and Engineering Education
Curriculum Revision/Update
Technology and Engineering Education
6th Grade – Exploring Technology

Philosophy –
The Technology and Engineering Education program focuses on developing technology problem solving skills, technological literacy, and 21st century skills through hands-on activities integrating Science, Technology, Engineering, and Mathematics (STEM).

Mission
Technology and Engineering Education is committed to preparing students for post secondary success, citizenship, and life long learning by teaching technological literacy.

Goals
All students will be able to successfully contribute and function in a technological society.
All students will have basic skills in technological problem solving.
All students will develop technological literacy to be successful in life.
Create the innovative thinkers and doers of the 21st century.

Core Values
Be Honest
Be Fair
Keep our Commitments
Respect Individuals
Encourage Intellectual Integrity
Community of Character – Character Education

Grade 6 - Exploring Technology –
Exploring Technology is an activity-based course that introduces students to technology by exploring Systems of Technology, Design, and Engineering using an integrated Science, Technology, Engineering, and Mathematics (STEM) approach to instruction. Students will study the technological problem solving method, engineering design process, energy, graphic communication, aerospace engineering, system control, and robotics. Students will work in teams and individually to complete required classroom and lab assignments.

Instructional Time
22 cycles, 1 period/4 day cycle, 22 - 43 minute classes, 15 hours of instruction, 22 days out of 90

1 semester in Design and Engineering Lab – problem solving, tech drawing, computer aided design, robotics, system control, design and engineering, and 21st century skills

Enrollment
- Approximately 2/3 of the 6th grade class is enrolled in this course – 30 /class, 120 students