

Wallenpaupack Area School District

Wallenpaupack Area Middle School

Course Title: Technology Education 6th & 7th Grade

Length of Course: 22 ½ days

District Policies:

Academic Integrity:

Academic integrity is essential to the success of an educational community. Students are responsible for learning and upholding professional standards of research, writing, assessment, and ethics in their areas of study. Written or other work which students submit must be the product of their own efforts and must be consistent with appropriate standards of professional ethics. Academic dishonesty, which includes cheating, plagiarism, multiple submissions and other forms of dishonest or unethical behavior, is prohibited.

Assessment:

The goal of grading is to report student progress and achievement to the parents to strengthen the home-school connection. The grade should accurately reflect the student's performance in mastering the PA Standards and the WASD curriculum.

Attendance:

Regular school attendance is vitally important to academic success. Not only does attendance reinforce and enrich the learning process; it also establishes patterns and attitudes that will carry forward into adult work habits. Regular, consistent attendance is a prerequisite to successful school life. Children should be absent only in cases of illness or emergency.

Special Education:

Our commitment to each student is to ensure a free appropriate public education which begins with the general education setting, with the use of Supplementary Aids and Services. Inclusive education describes the successful education of all students with the appropriate supports and services to participate in and benefit from the general classroom settings and other educational environments.

Course Description:

The 6th & 7th grade Technology Education course introduces students to the basics of S.T.E.M. (Science, Technology, Engineering, and Mathematics) education through the use of robotics. Students will demonstrate their knowledge of problem solving, process planning, and programming.

Pennsylvania State Standards: All WAMS courses are aligned to the PA State Standards and Common Core Standards, where applicable.

Course Objectives:

Student will demonstrate the ability to:

1. Students will **demonstrate** an understanding of the attributes of engineering and design.
2. Students will **demonstrate** an understanding of the role of troubleshooting, research and development invention, and experimentation in problem solving.
3. Students will **demonstrate** the ability to use and maintain technological products and systems.
4. Students will **demonstrate** the ability to assess the impact of products and systems.
5. Students will **demonstrate** the ability to implement and utilize robots to solve simple problems.

6. Students will **demonstrate** an understanding of and be able to select and use energy and power technologies.
7. Students will **demonstrate** the ability to develop and be able to select and use transportation technologies.

Student Responsibilities:

Attendance expectations: Attendance is essential to reaching your full potential in understanding Technology Education concepts.

Homework expectations: Assigned homework is expected to be completed to reinforce skills and concepts taught.

Make-up work: Course is only 22 ½ days long. Make up work must be in before the end of the course duration.

Late work: Any completed late work handed in the next class period will receive half credit.

Assessment:

Grading components:

Journal	40%
Quizzes	30%
Project	20%
Final Exam	10%

Content Pacing Guide: The following pacing guide is a general guideline and the instructional content/timeframe may vary.

Topic	Major Assignments	Estimated Timeframe (Classes)
Introduction to Robotics/Robot Assembly	Robot Completion	2 classes
Full Speed Ahead	Completion of lesson worksheet and Lesson Quiz	1 class
Wheel and Distance	Completion of lesson worksheet and Lesson Quiz	2 classes
Right Face	Completion of lesson worksheet and Lesson Quiz	1 class
Measured Turns	Completion of lesson worksheet and Lesson Quiz	2 classes
Clap on Clap Off	Completion of lesson worksheet and Lesson Quiz	1 class
Frequency and Amplitude	Completion of lesson worksheet and Lesson Quiz	2 classes
Follow the Guidelines	Completion of lesson worksheet and Lesson Quiz	1 class
Fast Line Tracking	Completion of lesson worksheet and Lesson Quiz	2 classes
Obstacle Detection	Completion of lesson worksheet and Lesson Quiz	1 class
Field of View	Completion of lesson worksheet and Lesson Quiz	2 classes
Get in Gear	Completion of lesson worksheet and Lesson Quiz	1 class
Gears and Speed	Completion of lesson worksheet and Lesson Quiz	2 classes
Final	Completion of the FINAL challenge course	1 class

