Northern York County School District

Curriculum Overview

Course: Introduction to Home Repair	
Grade Level: 9-12	
Approval Date: March 2023	**Length of Time: 180 days / 1 credit**

Course Description:

This is a full year stand-alone course.

This course provides students the opportunity to develop skills necessary to fix basic problems most commonly found around a house. The course is an excellent basis for personal home repair skills or future employment in several skilled trades. Students will learn the basics of home safety, measurement, tool selection and care, residential wiring, PVS and copper plumbing, drywall repair and HVAC. Students will demonstrate proper safety techniques in a variety of home repair situations.

Course Objectives:

- Students will know, understand, and apply safety rules, regulations & techniques.
- Students will know and use non-fiction reading strategies to improve their technical reading ability.
- Students will learn accurate measuring techniques.
- Students will appropriately select, use, and manage a variety of hand tools.
- Students will understand and use basic electrical terms & techniques.
- Students will understand and use basic plumbing terms & techniques.
- Students will understand and use basic drywall terms & techniques.
- Students will understand and use basic HVAC terms & techniques.

Related Standards:

Pennsylvania State Standards:

- Explore the use of basic tools, simple materials and techniques to safely solve problems
- Describe the safe and appropriate use of tools, materials and techniques to answer questions and solve problems
- Use appropriate instruments and apparatus to study materials
- Identify and safely use a variety of tools, basic machines, materials and techniques to solve problems and answer questions

Pa Technology & Engineering Standards:

Design & Technology

- Apply a broad range of design skills to a design thinking process
- Implement and critique principles, elements, and factors of design
- Optimize a design by addressing desired qualities within criteria and constraints while considering trade-offs

Standards for Technological and Engineering Literacy:

- Diagnose a flawed system embedded within a larger technological, social, or environmental system

Units:

1. Safety & Measurement
2. Introduction to electrical terms and techniques
3. Introduction to plumbing terms and techniques
4. Introduction to drywall terms and techniques
5. Introduction to HVAC terms and techniques

Concepts:

- Tool & equipment safety
- Reading a ruler & tape measure
- Residential wiring
- Residential plumbing
- Drywall replacement & repair
- HVAC

Competencies:

- Identify and correctly use Romex Wire & Gauges (12-2, 12,3, 14-2 & 14-3)
- Understand Volts, Amps, Resistance
- Select and use PVC adhesives: Primer & Glue
- Apply Copper Fusion techniques (Flux & Solder)
- Identify and use Drywall Materials such as seam tape & spackle
- Identify and use Drywall Tools such as Mud Pan, Puddy Knife, Utility Knife, Drywall Jab Saw, Sandpaper, Rotary saw, Corner Trowel
- Understand Electrical Wiring Schematics
- Students will employ non-fiction reading strategies including: using external text features, identifying key concepts, recognizing text organization, previewing, monitoring comprehension and summarizing

Learning Activities:

- Individual classwork
- Individual projects
- Peer teaching
- Teacher demonstration
- Instructional videos

Performance Tasks:

A variety of performance tasks will be employed throughout the year based on the student's current levels of achievement. A selection of potential performance tasks is provided below:

- Safety quizzes
- Employing safety practices
- Reading and articulating a tape measure.
- Replacing wire switches, outlets & fans/lights
- Connecting & gluing PVC plumbing & components
- Connecting & soldering copper plumbing & components
- Replacing, repairing, spackling & finishing drywall.
- Demonstrating understanding of HVAC

Other Assessment Measures:

- Student self-evaluation.
- Student peer evaluation.
- Teacher feedback.

Textbook/Primary Resource:

- NEC Code Book

Supplemental Resource Materials:

- YouTube
- Teacher Generated Materials