ENOREE CAREER CENTER

Building Construction

SC Architecture and Construction State Standards

Unit Title	Unit 5: Introduction to Plastic Pipe and Fittings
Unit Dates	Projected start and end dates: Weeks 21 January 20-25
State Standards Covered	SC State Standard R: Copper Tube and Fittings cover the skills and knowledge for installing copper tubing and fittings. The following accountability criteria are considered essential for students in the Construction Technology program of study.
Unit Learning Target	SWBAT: 1. Identify the various types of copper tube. 2. Identify the material properties, storage, and handling requirements of copper tube. 3. Identify the types of fittings and valves used with copper tube. 4. Identify the techniques used in hanging and supporting copper tube. 5. Properly measure, cut, and join copper tube. 6. Identify the hazards and safety precautions associated with copper tube. 7. Perform performance tasks.

Unit summary

Students will gain foundational knowledge and practical skills in installing and maintaining DWV systems, ensuring they meet industry standards and safety regulations.

Skills for the teacher to teach

- Understanding waste flow from fixtures to the environment
- Identifying major drainage system components and their functions
- Explaining different types of traps and their importance
- Recognizing code and health issues related to DWV systems

Task for students to complete

- Properly measure, cut, and join plastic pipe.
- Identify the hazards and safety precautions associated with plastic pipe.
- Troubleshooting exercises: students solve common DWV issues.
- Practical task: Install Plastic Pipe and Fittings in a controlled environment - Lab Sheet

Assessment students will complete / Product they will produce

- **Formative Assessments:** Quizzes, group presentations, and hands-on activities.
- **Summative Assessments:** Final project (DWV system installation), written exam on theory and regulations, and a practical skills test. Students will combine skills learned from units P, Q, and R to complete a full DWV system installation project.

What resources/materials/supplies will be needed, and how will they be secured?

- Hand tools, power tools, and plumbing supplies.
- DWV system components (pipes, traps, vents)
- Diagrams and models of drainage systems
- Workshop space for hands-on activities

What business partner support (guest speaker, materials, resources) is available?

- Jennings Dill scheduled in February

Will this unit include a certification? Is it an approved certification? Purchase plan?

- Plumbing is part of an overall NCCER certification. This unit is part of the total certification process.

How will students know they are making progress toward the overall learning target?

- Through Performance Assessments and Formative Assessments

How will students reflect on their learning success, challenges, and take-aways?

- Exit tickets
- Student feedback/survey - Unit 5 Student Survey

Teacher reflection notes – What may need to be modified after completing the lesson?

- Teacher reflection link