Construction Finishing and Interior Systems

Construction Finishing and Interior Systems is a one-credit course designed to facilitate student understanding of the finishing phase of a structure. Students become familiar with the exterior and interior finishing of a structure. Topics include career opportunities, safety, windows, doors, plumbing, electrical wiring, insulation, wall coverings, storage, and finishes.

Content standards for this course are not intended to serve as the entire curriculum. Teachers are encouraged to expand the curriculum beyond the limits of these content standards to accommodate specific community interests and utilize local resources. This course encourages critical thinking, use of the scientific method, integration of technology, development of student leadership skills, and application of knowledge and skills related to practical questions and problems. Safety concepts are integrated into instruction to the maximum extent possible.

Career and technical student organizations are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Career Opportunities

Student will:

1. Describe career opportunities associated with construction finishing.
   Examples: construction foreman, painter, carpenter, plumber, electrician

Safety

2. Demonstrate job site safety in the finishing phase of construction.

Windows and Doors

3. Demonstrate the installation of a window in a structure.
   - Identifying various types of windows
     Examples: casement, storm, fixed, sliding, double-hung

4. Demonstrate the installation of a door in a structure.
   - Identifying various types of materials used for door construction
     Examples: wood, metal, fiberglass
   - Identifying types of doors
     Examples: interior, exterior, bi-fold, swinging, sliding
   - Identifying types of thresholds used with exterior doors
   - Installing door hardware
     Examples: hinges, locksets, dead bolt locks
Plumbing

5. Design water supply and sewage drainage systems for a structure.
   • Identifying tools used in plumbing
      Examples: pipe cutter, pipe wrench, torch, tubing cutter
   • Explaining the selection of specific types of pipe used in plumbing
      Examples: steel, copper, polyvinyl chloride (PVC), chlorinated polyvinyl
      chloride (CPVC), acrylonitrile butadiene styrene (ABS)
   • Explaining the selection of proper fittings for joining various kinds of pipe

Electrical

6. Analyze components needed for wiring a structure.
   Examples: power source, wire, connector, circuit breaker, switch, receptacle
   • Identifying tools used for electrical wiring
      Examples: wire strippers, wire cutters, lineman’s pliers, screwdrivers, test meter
   • Describing how national and local electrical codes affect the wiring of structures
   • Illustrating the use of electrical terms and symbols in electrical diagrams
      Examples: alternating current (AC), direct current (DC), voltage, amperage,
      switch, receptacle, light

7. Demonstrate techniques for making electrical splices and connections for a single-pole switch
   with light, three-way switch with light, and a duplex receptacle.
   • Utilizing ground fault circuit interrupters where required by code

Insulation

8. Identify criteria for selecting insulating materials for structures.
   Examples: resistance-value (R-value), cost, durability

9. Describe procedures for installing various insulating materials for structures.

Exterior and Interior Wall Coverings

10. Demonstrate the installation of exterior and interior wall coverings for structures.
    • Differentiating among types of exterior wall coverings for structures
       Examples: wood, vinyl, masonry, metal
    • Differentiating among types of interior wall coverings for structures
       Examples: wood, drywall, paneling
Interior Storage

11. Identify materials, hardware, and fasteners used in cabinet construction.

12. Demonstrate the construction of storage units in structures.
   - Designing base- and wall-hung storage units
   - Determining countertop materials for storage units
   - Installing plumbing fixtures
   - Installing shelving

Finishes

13. Identify various finishes for exterior surfaces.

14. Apply finishes to interior surfaces.
   Examples: paints, lacquers, varnishes, stains, preservatives
   - Preparing interior surfaces for finishing
   - Identifying types of application methods for finishes
     Examples: pneumatic application, natural bristle brushes, synthetic bristle brushes