

Essential Learning Goals for:

Introduction to Industrial Arts

Students will...

- identify causes of accidents and the impact of accident costs.
- follow safe behavior procedures on and around ladders, scaffolds and stairs.
- follow safe behavior procedures around electrical hazards.
- demonstrate the use, care and inspection of appropriate personal protective equipment (PPE)
- explain the importance of hazard communications (HazCom) and material safety data sheets (MSDSs).
- respond to hazardous-materials and hazardous-waste emergency situations in accordance with regulatory requirements.
- follow safety procedures required for lifting heavy objects.
- demonstrate a working knowledge of safety education, environment, and enforcement for life and work.
- apply safe practices while using tools and equipment.
- apply safe practices for house keeping, dress, fire, chemicals & personal protection while working in a shop.
- describe fire prevention and firefighting techniques.
- explain the purpose of OSHA and how it promotes safety on the job.
- add, subtract, multiply, and divide whole numbers, fractions, decimals and percentages.
- use a standard ruler, a metric ruler, and a measuring tape to measure.
- demonstrate conversion skills for decimals and fractions.
- recognize and perform calculations using metric units of length, weight, volume and temperature.

- recognize and identify some of the basic hand tools and their proper uses in industrial trades.
- demonstrate the safe use of common hand tools.
- recognize and identify some of the basic power tools and their proper uses in the industrial trades.
- demonstrate the safe use of common power tools.
- perform preventive maintenance on basic power tools used in the industrial trades.
- perform the drafting principles needed to draw the basic geometric shapes.
- develop a pictorial sketch of an object.
- develop a multi-view drawing.
- identify basic symbols used in blueprints.
- identify various types of blueprint views used in Architecture, Construction, Manufacturing and Engineering.
- interpret information and follow instructions presented in both verbal and written form.
- communicate effectively in on-the-job situations using verbal and written skills in various delivery modes (face-to-face, paper, & electronic).
- create and complete various written documents used in industrial trades.
- demonstrate knowledge and use of computer systems and word processing software in effective communication.
- create and utilize employment documents including a resume and portfolio.
- demonstrate job seeking and interview skills.
- understand and respond to performance reviews.
- demonstrate critical thinking skills and the ability to solve problems using those skills.
- define effective relationship skills.

- demonstrate a working knowledge of workplace issues such as sexual harassment, stress, and substance abuse.
- demonstrate the ability to achieve common goals through teamwork.
- verify that health, safety, environmental and government regulations are met.
- recognize hazards and follow safety procedures required for materials handling.
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