

Manufacturing Production - Plastics

Apply safety principles, practices, philosophy, and guidelines to the work environment. [STS.HS.25.1](#)

- a** Complete applicable safety assessment with 100% accuracy. [STS.HS.25.1.A](#)
- b** Employ appropriate Personal Protective Equipment (PPE) while in the lab setting. [STS.HS.25.1.B](#)
- c** Employ eye protection in compliance with Neb. Rev. Statute 79-715. [STS.HS.25.1.C](#)
- d** Employ the safe application of tools and machines. [STS.HS.25.1.D](#)
- e** Explain the main hazards that are possible in the lab setting. [STS.HS.25.1.E](#)
- f** Demonstrate proper handling and storing of materials and chemicals. [STS.HS.25.1.F](#)

Execute accurate measurements using plastics measurement and layout tools. [STS.HS.25.2](#)

- a** Identify types of plastics measurement and layout tools. [STS.HS.25.2.A](#)
- b** Categorize plastics measurement and layout tools by use. [STS.HS.25.2.B](#)
- c** Demonstrate the accurate use of measurement and layout tools to 1/16" precision. [STS.HS.25.2.C](#)

Solve math functions and formulas to complete plastics job/workplace tasks. [STS.HS.25.3](#)

- a** Identify whole numbers, decimals, fractions, and complex numbers used in the workplace. [STS.HS.25.3.A](#)
- b** Apply basic arithmetic operations used in the workplace. [STS.HS.25.3.B](#)
- c** Solve decimal and fraction conversions used in the workplace. [STS.HS.25.3.C](#)

Identify career opportunities in the plastics manufacturing industry. [STS.HS.25.4](#)

- a** Describe work behaviors needed to be employable. [STS.HS.25.4.A](#)
- b** Describe appropriate work behavior that meets or exceeds plastics manufacturing industry standards. [STS.HS.25.4.B](#)
- c** Identify the education, certification, or licensure required in plastics manufacturing careers. [STS.HS.25.4.C](#)

d Identify the value that may be added to the community by plastics manufacturing professionals. STS.HS.25.4.D

Demonstrate the use of plastic manufacturing communications. STS.HS.25.5

a Define plastic manufacturing terminology. STS.HS.25.5.A

b Estimate manufacturing timelines based on criteria. STS.HS.25.5.B

c Utilize business and interpersonal communication appropriate to the plastics manufacturing work environment. STS.HS.25.5.C

d Identify the industry standard compensation for a plastics manufacturing professional. STS.HS.25.5.D

Select the materials, tools, machines, and processes required to manufacture a plastic product. STS.HS.25.6

a Identify the origins, characteristics, and properties of various types of plastics. STS.HS.25.6.A

b Categorize fasteners by their industry standard applications. STS.HS.25.6.B

c Differentiate between various types of mechanical and chemical fasteners. STS.HS.25.6.C

d Estimate amount of materials and supplies needed for a plastic product. STS.HS.25.6.D

e Explain the operation and application of common industry finishes. STS.HS.25.6.E

f Assess potential environmental and health impacts of using specific materials or processes. STS.HS.25.6.F

g Determine the correct tools and machines needed to produce a specific plastic product. STS.HS.25.6.G

Manufacture a production level product that uses plastic as its primary material. STS.HS.25.7

a Interpret plans, drawings, and specifications to process materials. STS.HS.25.7.A

b Coordinate the standard operation and application of tools and machines along the manufacturing process. STS.HS.25.7.B

c Plan and apply the type of materials, fasteners, adhesives, and finishes required to manufacture a specific product. STS.HS.25.7.C

d Critique a finished product. STS.HS.25.7.D

e Appraise the manufacturing process for streamlining opportunities. STS.HS.25.7.E
