

# Architectural Design 1

Apply safety principles, practices, philosophy, and guidelines to the work environment. [STS.HS.6.1](#)

- a** Employ eye protection in compliance with Neb. Rev. Statute 79-715. [STS.HS.6.1.A](#)
- b** Identify office safety hazards. [STS.HS.6.1.B](#)
- c** Employ appropriate Personal Protective Equipment (PPE). [STS.HS.6.1.C](#)
- d** Employ proper ergonomics. [STS.HS.6.1.D](#)
- e** Complete applicable safety assessment with 100% accuracy. [STS.HS.6.1.E](#)

Identify architectural career opportunities. [STS.HS.6.2](#)

- a** Identify the primary duties and attributes of an architect or architectural technician. [STS.HS.6.2.A](#)
- b** Describe the various careers within the architectural profession (i.e., drafting technician, designer, project manager, architect, landscape architect, and interior designer) and the training and certification needed for each. [STS.HS.6.2.B](#)
- c** Identify the relationships between all stakeholders involved in a construction project. [STS.HS.6.2.C](#)
- d** Identify positive work behaviors and personal qualities needed to be employable. [STS.HS.6.2.D](#)

Apply math terminology, functions, and formulas to architectural design. [STS.HS.6.3](#)

- a** Identify whole numbers, decimals, fractions, and complex numbers. [STS.HS.6.3.A](#)
- b** Apply arithmetic operations. [STS.HS.6.3.B](#)
- c** Solve decimal/fraction conversions. [STS.HS.6.3.C](#)
- d** Apply algebraic skills to solve problems involving area, volume, and angles. [STS.HS.6.3.D](#)
- e** Explain scale using architect or engineer scales. [STS.HS.6.3.E](#)

Utilize drafting and design technology. [STS.HS.6.4](#)

- a** Employ the appropriate technology tools (i.e., CAD, SolidWorks, Fusion 360, Inventor, etc.) for conveying information, solving problems, and expediting workplace processes. [STS.HS.6.4.A](#)
- b** Employ basic computer and information technology skills used in the drafting industry. [STS.HS.6.4.B](#)

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**c** Employ ethical digital citizenship. STS.HS.6.4.C

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**Analyze architectural styles across time.** STS.HS.6.5

**a** Identify design principles, elements, and architectural styles. STS.HS.6.5.A

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**b** Identify the building materials, locations, and design that have historically influenced architecture. STS.HS.6.5.B

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**c** Identify the influence that historical buildings have on today's architecture. STS.HS.6.5.C

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**Identify typical building design and construction methods and practices.** STS.HS.6.6

**a** Identify terms and definitions commonly used in the architectural profession. STS.HS.6.6.A

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**b** Identify various digital drafting and modeling options (i.e., CAD/BIM). STS.HS.6.6.B

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**c** Identify the types of materials, their properties, and applications used in building construction. STS.HS.6.6.C

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**d** Identify different types of fasteners, adhesives, and finishes. STS.HS.6.6.D

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**Communicate design solutions.** STS.HS.6.7

**a** Identify common line types, symbols, and components that comprise architectural construction working drawings. STS.HS.6.7.A

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**b** Identify dimensions on working drawing. STS.HS.6.7.B

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**c** Create multi-page working drawings. STS.HS.6.7.C

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**d** Employ correct annotation of line type, section line labels, and dimensions. STS.HS.6.7.D

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**e** Create shaded and rendered presentation drawings. STS.HS.6.7.E

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