Connecticut CTE

Architecture Technology (Grades 9-12)

Architecture Technology

I **Architecture Technology** ARCH

a Identify significant historical events and trends that have impacted architecture. ARCH.01

1 Discuss current trends in commercial and residential architecture ARCH.01.01

2 Research and differentiate between design periods that shaped todays structures. ARCH.01.02

b Demonstrate an understanding of socio-cultural and environmental impacts on architectural design. ARCH.02

1 Identify how location, resources and materials influence design. ARCH.02.01

2 Differentiate between human wants and needs. ARCH.02.02

3 Apply "Green" building practices to project design. ARCH.02.03

4 Apply culture, community and diversity needs to project design ARCH.02.04

c Demonstrate an understanding of regulations in architectural design. ARCH.03

1 Research and identify regulations and codes that are needed to establish a legal and safe design. ARCH.03.01

2 Evaluate a site that takes into consideration local, state and national restrictions, zoning and codes. ARCH.03.02

3 Differentiate between residential and commercial building codes/standards. ARCH.03.03

4 Develop an understanding of the American Disability Act. ARCH.03.04

d Apply principles of physics in selecting and working with materials and load applications ARCH.04

1 Explain various forces that bear on, and within, structures. ARCH.04.01

2 Analyze architectural physics of soil mechanics, foundation design, and engineering material as they relate to structural design. ARCH.04.02

3 Demonstrate an understanding of static and dynamic loads as they relate to a structure. ARCH.04.03

4 Develop and communicate an assigned building design. ARCH.04.04

Skip to main content

e Research, plan and design functional structure. ARCH.05

1 Apply prior knowledge to discuss daily needs and influences identified in their environment. ARCH.05.01

2 Produce preliminary designs, final sketches and presentation drawings. ARCH.05.02

3 Utilize commercial and residential suggestions and specifications to create functional floor plans. ARCH.05.03

4 Utilize an architectural drawing to estimate the cost and the materials necessary for a project. ARCH.05.04

f Develop technical drawings drafted by hand and computer aided drafting and design (CADD). ARCH.06

1 Identify, research, develop and explain architectural and construction plans, drawings, diagrams and specifications. ARCH.06.01

2 Draw and sketch by hand to communicate ideas effectively. ARCH.06.02

3 Utilize CADD software to produce technical drawings and architectural proposals. ARCH.06.03

g Employ appropriate media to communicate concepts and design. ARCH.07

1 Convey information using multi-dimensional drawings. ARCH.07.01

2 Create effective working drawings, and presentation drawing. ARCH.07.02

3 Employ basic model building techniques. ARCH.07.03

h Maintain a portfolio to document knowledge, skills and experience in architecture. ARCH.08

1 Research and Collect data that relates to architectural drafting and design ARCH.08.01

2 Select and organize appropriate examples that demonstrate knowledge, skills and experience. ARCH.08.02

3 Prepare and conduct effective oral presentation. ARCH.08.03