

Malone Template

Content Area: **Generic Content Area**
Course(s): **Generic Course, Level 1 Engineering Drawing**
Time Period: **Generic Time Period**
Length: **3 weeks**
Status: **Published**

Unit Introduction

Standards

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|-----------------|--|
| 9.3.12.AC.1 | Use vocabulary, symbols and formulas common to architecture and construction. |
| 9.3.12.AC.2 | Use architecture and construction skills to create and manage a project. |
| 9.3.12.AC.6 | Read, interpret and use technical drawings, documents and specifications to plan a project. |
| 9.3.12.AC.7 | Describe career opportunities and means to achieve those opportunities in each of the Architecture & Construction Career Pathways. |
| 9.3.12.AC-CST.2 | Describe the approval procedures required for successful completion of a construction project. |
| 9.3.12.AC-CST.7 | Compare and contrast the building systems and components required for a construction project. |
| 9.3.12.AC-CST.9 | Safely use and maintain appropriate tools, machinery, equipment and resources to accomplish construction project goals. |
| 9.3.12.AC-DES.1 | Justify design solutions through the use of research documentation and analysis of data. |
| 9.3.12.AC-DES.3 | Describe the requirements of the integral systems that impact the design of buildings. |
| 9.3.12.AC-DES.4 | Apply building codes, laws and rules in the project design. |
| 9.3.12.AC-DES.6 | Apply the techniques and skills of modern drafting, design, engineering and construction to projects. |
| 9.3.12.AC-DES.8 | Apply standards, applications and restrictions pertaining to the selection and use of construction materials, components and assemblies in the project design. |
| 9.3.12.AC-MO.4 | Determine work required to repair or renovate an existing building. |
| 12.9.3.ST.2 | Use technology to acquire, manipulate, analyze and report data. |
| 12.9.3.ST.6 | Demonstrate technical skills needed in a chosen STEM field. |
| 12.9.3.ST-ET.3 | Apply processes and concepts for the use of technological tools in STEM. |
| 12.9.3.ST-ET.4 | Apply the elements of the design process. |
| 12.9.3.ST-ET.5 | Apply the knowledge learned in STEM to solve problems. |
| 12.9.3.ST-SM.2 | Apply science and mathematics concepts to the development of plans, processes and projects that address real world problems. |

Essential Questions

1. How does the world/societies/cultures/environments impact/influence Architecture past, present and

future?

2. What is the role the "Design Process" in good Architecture?

Content / Skills

Textbooks:

Basic Technical Drawing - Spencer, Dygdon, Novak, 8th edition, 2004

Engineering Drawing & Design - D.A. Madsen, D.P. Madsen, 6th edition, 2017

Architectural Drafting & Design – A. Jefferis, D.A. Madsen, D.P. Madsen, 7th edition, 2017

Skills: See Below

| | |
|------------------------------|---|
| • Layout | . |
| • Plotting Drawings to Scale | . |
| • math operations | . |
| • measurement | . |
| • mechanical drawing | . |
| • safety | . |
| • sketching | . |
| • teamwork | . |
| • using CAD | . |
| • visualization | . |