

Unit 2: House Design Unit 1

Content Area: **Technology**
Course(s):
Time Period: **Full Year**
Length: **Type Length of Unit**
Status: **Published**

General Overview, Course Description or Course Philosophy

This first-year course is designed to teach students important information in the field of Architecture. Students will learn the fundamental skills and concepts necessary for architectural planning, design, and drawing. Students will learn about the hard work that goes into designing a house and the problems that arise during that task. Students will be required to use his/her/their creative abilities to complete an individual yearlong project

OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

Students will understand:

- Architectural design is process-oriented requiring the subjective interpretation of objective guidelines
- The basic layout of a house
- Form Follows Function

CONTENT AREA STANDARDS

9.3.12.AC.1	Use vocabulary, symbols and formulas common to architecture and construction.
9.3.12.AC.6	Read, interpret and use technical drawings, documents and specifications to plan a project.
12.9.3.MN-HSE.1	Demonstrate the safe use of manufacturing equipment.
12.9.3.ST-ET.1	Use STEM concepts and processes to solve problems involving design and/or production.
12.9.3.ST-ET.2	Display and communicate STEM information.
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.

RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)

LA.RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking
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measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

LA.RST.11-12.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.
LA.WHST.11-12.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.
LA.WHST.9-10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.
LA.WHST.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
LA.WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
LA.WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

STUDENT LEARNING TARGETS

Students should be able to identify the proper use of each tool/machine, which tool/machine should be used for a specific task, how to safely operate and adjust each machine or tool.

Declarative Knowledge

- - The basic layout of a house
 - Different areas of a home-living, sleeping, service/utility
 - Different housing zones--public/private
 - Basic measurements and characteristics of each area-FHA Standards and basic building code
 - Form Follows Function

Procedural Knowledge

- - Produce a house that meets requirements with a working area, living area, sleeping area, and utility area
 - Learn the design process

- Students will utilize sketching, hand drawing, and computer drafting techniques

EVIDENCE OF LEARNING

Formative Assessments

Individual area code quizzes, sketches, layout practice

Summative Assessments

student-created areas and rooms

RESOURCES (Instructional, Supplemental, Intervention Materials)

Teacher notes and quizzes are available through Google Classroom/Drive.

Tutorial found within computer program and/or teacher-generated

INTERDISCIPLINARY CONNECTIONS

Educational Technology: Use of Google resources

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.

