



Architectural Design - Unit 1 - The Proposal

Unit Focus

The nature of this course will revolve around designing a house on a piece a property for a given client. This process will take place over two units in which they will focus on developing the proposal (Unit 1) and carrying out the proposal in creating the home design (Unit 2).

In Unit 1, students will get the experience of acting as an architect and dealing with a client in developing a proposal to meet their needs. This unit focuses on the conceptual design of residential buildings with emphasis on preliminary design development and model building. Emphasis will be placed on developing the student's ability to research, analyze, and evaluate information from the client as the design evolves. The PBA will have students prepare a conceptual design of a home for review by their given client.

Stage 1: Desired Results - Key Understandings

Standard(s)	Transfer	
<p>Connecticut Goals and Standards</p> <p>Architecture: 9</p> <ul style="list-style-type: none"> Identify how location, resources and materials influence design. (Arch.02.01) Research and identify regulations and codes that are needed to establish a legal and safe design. (Arch.03.01) Evaluate a site that takes into consideration local, state and national restrictions, zoning and codes. (Arch.03.02) Develop an understanding of the American Disability Act. (Arch.03.04) Produce preliminary designs, final sketches and presentation drawings. (Arch.05.02) Draw and sketch by hand to communicate ideas effectively. (Arch.06.02) <p>Building Construction: 12</p> <ul style="list-style-type: none"> Create ideas, proposals, and solutions to building construction problems. (BC.06.02) <p>Building Construction: 9</p> <ul style="list-style-type: none"> Compare the advantages and disadvantages of different types of home purchases, additions, renovations and repairs. (BC.01.03) Explain the sub-systems, (e.g., structural, electrical, mechanical, finish, foundations) appropriate to the architectural design and residential construction. (BC.05.09) 	<p><i>Students will be able to independently use their learning to...</i></p> <p>T1 Develop a product/solution that adheres to key parameters (e.g., cost, timeline, restrictions, available resources and audience).</p> <p>T2 Communicate effectively based on purpose, task, and audience using appropriate vocabulary.</p>	
	Meaning	
	Understanding(s)	Essential Question(s)
	<p><i>Students will understand that...</i></p> <p>U1 Scale floor plans provide a visual opportunity to see the finished home before construction begins.</p> <p>U2 Conceptual designs are influenced by several factors including historical trends, financial resources, environmental considerations, location, zoning regulations, family needs/wants, and availability of resources.</p>	<p><i>Students will keep considering...</i></p> <p>Q1 What is the purpose of creating spatially appropriate floor plans?</p> <p>Q2 What different aspects of a home make the design desirable or undesirable to a client?</p> <p>Q3 What is the difference between functional and aesthetic features?</p>
	Acquisition of Knowledge and Skill	
	Knowledge	Skill(s)
<p><i>Students will know...</i></p> <p>K1 Drawings are prepared and measured using different scales.</p> <p>K2 Field cards have detailed information on each property including a picture of the building (if applicable) and an</p>	<p><i>Students will be skilled at...</i></p> <p>S1 Calculate the yearly property taxes of a given residence.</p> <p>S2 Measure and create floor plans with different architectural scales.</p>	

Stage 1: Desired Results - Key Understandings

Technology Essential Knowledge and Skills: 12

- Present formal and informal speeches including: discussion, information requests, interpretation, and persuasive arguments. (EKS.02.05)
- Critically analyze information to determine value to the problem-solving task. (EKS.05.08)

Madison Public Schools Profile of a Graduate

- Collective Intelligence: Working respectfully and responsibly with others, exchanging and evaluating ideas to achieve a common objective. (POG.3.1)
- Self-Awareness: Examining current performance critically to identify steps/ strategies to persist. (POG.4.1)

exterior sketch of the building, references to Land Record volume and page, Developers Maps, previous owners, assessment information, assessor's maps, etc.

K3 A conceptual design outlines the form and function of the structure which incorporates the clients needs and wants into the design of a home.

K4 Home values such as appraisal, assessment and bank assessment.

K5 Architectural styles include but limited to: Victorian, Gothic, Georgian, Colonial, Federal, Tudor, Contemporary & Craftsman.

K6 The basic purpose and function of zoning is to divide a municipality into residential, commercial, and industrial districts (or zones), that are for the most part separate from one another, with the use of property within each district being reasonably uniform.

K7 A geographic information system (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present spatial or geographic data.

S3 Create a conceptual design that is spatially appropriate and meets the needs of a client.

S4 Using online resources, synthesize zoning regulations pertaining to a given property parcel as part of a conceptual design.

S5 Utilize a geographic information system (GIS) in making design decisions pertaining to a given property parcel as part of a conceptual design.