

Design a House

Math Unit

Duration: 9 Weeks

Learner Objectives:

By the end of this unit, students will be able to:

- Gather, analyze, and apply information about designing a home including the following topics: calculating area, calculating linear measurement, drawing to scale, costs of home construction and furnishings, calculate mortgages, and building codes.
- Apply math problem solving strategies to real-life situations.
- Communicate in writing, verbally and visually about house design and costs.
- Work responsibly as an individual, group member, and leader when analyzing problems associated with the costs of the home design.
- Apply and analyze appropriate research skills when investigating the types and costs of different building codes.

Show-Me Standards

Knowledge Standards:

Math 1	addition, subtraction, multiplication and division; other number sense, including numeration and estimation; and the application of these operations and concepts in the workplace and other situations
Math 2	geometric and spatial sense involving measurement (including length, area, volume), trigonometry, and similarity and transformations of shapes
CA 1	speaking and writing standard English (including grammar, usage, punctuation, spelling, capitalization)
CA 3	reading and evaluating nonfiction works and material (such as biographies, newspapers, technical manuals)
CA6	participating in formal and informal presentations and discussions of issues and ideas
SS 5	the major elements of geographical study and analysis (such as location, place, movement, regions) and their relationships to changes in society and environment

Performance Standards:

Goal 1.4	use technological tools and other resources to locate, select and organize information
Goal 1.8	organize data, information and ideas into useful forms (including charts, graphs, outlines) for analysis or presentation
Goal 1.10	apply acquired information, ideas and skills to different contexts as students, workers, citizens and consumers
Goal 2.1	plan and make written, oral and visual presentations for a variety of purposes and audiences
Goal 2.3	exchange information, questions and ideas while recognizing the perspectives of others
Goal 2.4	present perceptions and ideas regarding works of the arts, humanities and sciences
Goal 2.5	perform or produce works in the fine and practical arts
Goal 3.1	identify problems and define their scope and elements
Goal 3.2	develop and apply strategies based on ways others have prevented or solved problems
Goal 3.4	evaluate the processes used in recognizing and solving problems
Goal 3.6	examine problems and proposed solutions from multiple perspectives
Goal 3.8	assess costs, benefits and other consequences of proposed solutions
Goal 4.1	explain reasoning and identify information used to support decisions
Goal 4.4	recognize and practice honesty and integrity in academic work and in the workplace
Goal 4.5	develop, monitor and revise plans of action to meet deadlines and accomplish goals
Goal 4.6	identify tasks that require a coordinated effort and work with others to complete those tasks