Unit 5: Interior Design

Content Area: **Applied Technology**
Course(s):
Time Period: **Marking Period 2**
Length: **3 weeks**
Status: **Published**

Summary

Interior design topics will be introduced throughout the semester. Initially, students will place elements in drawings for function, scale, and context. Students will bring focus to all the elements when they design the furniture layout for a house. Explorations aesthetic and functional placement of elements such as the arrangement of a living room or a kitchen, as well as considerations related to climate and building impact.

Revision Date: July 2024

Essential Questions/Enduring Understandings

Essential Questions:

How do interior designers use the design loop to solve problems?

What is interior design?

What are the tools interior designers use?

Enduring Understandings:

Interior designers use the design loop to solve problems

Interior designers design the inside of homes and commercial spaces.

Interior designers shape light, furnishings, and space to create spaces.

Objectives

Students will know:

key vocabulary including but not limited to space planning, scale, interior elevation, finish schedule, systems furniture, and kitchen cabinet systems.

interior designers design interior spaces to be functional and safe.

Interior designers design interior spaces to be aesthetically pleasing.

interior designers design office, residential, and commercial interiors.

interior designers go to college for four years and also require certifications.

architects can but often do not perform many aspects of the work interior designers perform.

Students will be skilled at:

How to use the design loop to develop better solutions.

how to make detailed interior design drawings.

use light, shape, and furnishings to create spaces.

Learning Plan

Preview the essential questions and connect to learning throughout the unit.

Teacher will provide formative and summative assessments of skills attainment.

Suggested activity: create a detailed scale plan of a room with special requirements, like a media room, a music room, a library, and a dining room. Include in the drawing elements including furniture, seating, lighting, outlets, and other required elements.

Suggested activity: create a detailed scale plan and interior elevation drawings of a kitchen from a previous project. Include in the drawings elements including cabinet placement, lighting placement, appliance and fixture placement, window placement, furniture placement, and floor and wall materials.

Suggested activity: create a detailed scale plan and interior elevation drawings of a bathroom in a previous project. Include and specify in the drawings elements including cabinet placement, lighting placement fixture placement, window placement, furniture placement, as well as floor and wall finishes.

Assessment

Formative assessment:

analyze the classroom: what tools are used to create space?

provide two floor plans for students to place furniture.

exit tickets

sketchbook

demonstrate knowledge and understanding of vocabulary through correct usage.

evaluate online tools in AutoCAD.

Summative assessment:

answer the essential questions.

students will develop a solution to an interior design problem, i.e. The design of a kitchen, an entire house, or a room with special requirements. The project will be assessed using rubrics.

complete writing prompts: Example: Interior designers have a lot of freedom in design. Provide examples of work they can and cannot perform. Example: What do systems furniture and kitchen cabinets have in common? Example: what is the career path to becoming an interior designer?

Benchmark assessment:

Final exam

Alternate Assessment

research and presentation on the use of the design loop to design a particular interior space

Materials

AutoCAD/CAD computer lab

Architectural graphic standards by Ramsey/Sleeper

INTERNET

core book list

Standards

ELA.K-12.1	Developing Responsibility for Learning: Cultivating independence, self-reflection, and responsibility for one's own learning.
ELA.K-12.2	Adapting Communication: Adapting communication in response to the varying demands of audience, task, purpose, and discipline.
ELA.K-12.3	Valuing Evidence in Argumentation: Constructing viable claims and evaluating, defending,

	challenging, and qualifying the arguments of others.
ELA.K-12.4	Building Knowledge: Building strong content knowledge and connecting ideas across disciplines using a variety of text resources and media.
ELA.K-12.5	Leveraging Technology: Employing technology and digital media thoughtfully, strategically and capably to enhance reading, writing, speaking, listening, and language use.
ELA.K-12.6	Understanding Self and Others: Using literacy as a vehicle to affirm all the aspects of one's own identity, as well as understand, connect to and respect other perspectives and cultures.
	Key Ideas and Details
TECH.K-12.1.4	Innovative Designer
	Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
TECH.K-12.1.4.a	know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
TECH.K-12.1.4.b	select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
TECH.K-12.1.4.c	develop, test and refine prototypes as part of a cyclical design process.
TECH.K-12.1.4.d	exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.
TECH.K-12.1.6	Creative Communicator
	Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.
TECH.K-12.1.6.a	choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
TECH.K-12.1.6.b	create original works or responsibly repurpose or remix digital resources into new creations.
TECH.K-12.1.6.c	communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.
TECH.K-12.1.6.d	publish or present content that customizes the message and medium for their intended audiences.
SCI.HS-ESS3	Earth and Human Activity
SCI.HS-ESS3-5	Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems.
SCI.HS.ESS3.D	Global Climate Change
	Though the magnitudes of human impacts are greater than they have ever been, so too are human abilities to model, predict, and manage current and future impacts.
SCI.HS-ETS1	Engineering Design
SCI.HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
SCI.HS.ETS1.B	Developing Possible Solutions
	Both physical models and computers can be used in various ways to aid in the engineering design process. Computers are useful for a variety of purposes, such as running simulations to test different ways of solving a problem or to see which one is most efficient or economical; and in making a persuasive presentation to a client about how a given design will meet his or her needs.

CS.9-12.8.2.12.ED.1	Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers.
CS.9-12.8.2.12.ED.2	Create scaled engineering drawings for a new product or system and make modification to increase optimization based on feedback.
CS.9-12.8.2.12.ED.4	Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience.
CS.9-12.ED	Engineering Design
WRK.9.2.12.CAP	Career Awareness and Planning
WRK.9.2.12.CAP.4	Evaluate different careers and develop various plans (e.g., costs of public, private, training schools) and timetables for achieving them, including educational/training requirements, costs, loans, and debt repayment.
WRK.9.2.12.CAP.5	Assess and modify a personal plan to support current interests and post-secondary plans.
WRK.9.2.12.CAP.6	Identify transferable skills in career choices and design alternative career plans based on those skills.
WRK.9.2.12.CAP.7	Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.
WRK.9.2.12.CAP.8	Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.
WRK.9.2.12.CAP.12	Explain how compulsory government programs (e.g., Social Security, Medicare) provide insurance against some loss of income and benefits to eligible recipients.
WRK.9.2.12.CAP.13	Analyze how the economic, social, and political conditions of a time period can affect the labor market.
TECH.9.4.12.CI	Creativity and Innovation
TECH.9.4.12.CI.1	Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a).
TECH.9.4.12.CI.2	Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8).
TECH.9.4.12.CI.3	Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).
TECH.9.4.12.CT	Critical Thinking and Problem-solving
TECH.9.4.12.CT.1	Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).
TECH.9.4.12.CT.2	Explain the potential benefits of collaborating to enhance critical thinking and problem solving (e.g., 1.3E.12profCR3.a).
TECH.9.4.12.CT.3	Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue (e.g., environmental justice).
TECH.9.4.12.CT.4	Participate in online strategy and planning sessions for course-based, school-based, or other project and determine the strategies that contribute to effective outcomes.
TECH.9.4.12.TL	Technology Literacy
TECH.K-12.P.4	Demonstrate creativity and innovation.
TECH.K-12.P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
TECH.K-12.P.6	Model integrity, ethical leadership and effective management.
TECH.K-12.P.7	Plan education and career paths aligned to personal goals.

TECH.K-12.P.8	Use technology to enhance productivity increase collaboration and communicate effectively. Collaboration with individuals with diverse experiences can aid in the problem-solving process, particularly for global issues where diverse solutions are needed. An individual's income and benefit needs and financial plan can change over time. Career planning requires purposeful planning based on research, self-knowledge, and informed choices. With a growth mindset, failure is an important part of success. Engineering design is a complex process in which creativity, content knowledge, research, and analysis are used to address local and global problems. Decisions on trade-offs involve systematic comparisons of all costs and benefits, and final steps that may involve redesigning for optimization. Innovative ideas or innovation can lead to career opportunities. Digital tools such as artificial intelligence, image enhancement and analysis, and sophisticated computer modeling and simulation create new types of information that may have profound effects on society. These new types of information must be evaluated carefully. Engineering design evaluation, a process for determining how well a solution meets requirements, involves systematic comparisons between requirements, specifications, and constraints.

Integrated Accommodation and modifications...

Integrated Accommodation and Modifications, Special Education students, English Language Learners, At-Risk students, Gifted and Talented students, Career Education and those with 504s.