INTERIOR DESIGN 1
Curriculum Resource Guide

CIP Code: 500408

Course Code: 5455

Interior Design I focuses on the study of interior planning with emphasis on the basics of design. Students will develop a global view and weigh design decisions within the parameters of ecological, socio-economic, and cultural contents. Concepts are applied with hands-on learning experiences as students study career paths, design, products, materials, and professionalism. Projects are integrated throughout the course work. Computer access is strongly recommended for this course. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Credit:	1 (120 hours), 2 (240 hours), 3 (360 hours)
National Certification:	Interior Design Fundamentals American Assoc. of Family and Consumer Sciences http://aafcs.org/CredentialingCenter/interior_design_fundamentals.asp
Recommended grades:	10-12
Prerequisite:	None
Textbook Information:	http://www.mysctextbooks.com/
Employment Opportunities:	
Secondary Education:	showroom assistant, interior design assistant, furnishing sales associate
Postsecondary Education:	display designer, photo stylist, furnishing buyer, drapery/upholstery estimator, energy auditor
Postgraduate Education:	interior designer for theatrical sets, furniture designer, interior designer, equipment specialist, interior design specialty areas: healthcare, medical, elderly care, assisted living, senior health care, government design- state, county, municipal and military liturgical, ecclesiastical (church), hospitality, entertainment and recreation spas, restaurants, hotels, resorts, golf clubs, country clubs, retail design, and brand development; education: k-12 and higher education

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A. Academic Standards (to be implemented in course specific standards):

B. CAREER PATHS

B1. Analyze career paths within the interior design industry.

1. Determine the roles and functions of professionals engaged in housing, interiors, and furnishings careers.
2. Explore opportunities for employment and entrepreneurial endeavors.
3. Investigate education and training requirements.
4. Identify attributes of professional interior designers.

C. DESIGN BASICS

C1. Identify architectural styles and furniture design throughout history.

1. Identify major time periods affecting buildings and furnishings.
2. Analyze building characteristics for time, location, resources, and events.
3. Differentiate historical furnishing styles.

C2. Analyze the application of the elements and principles of design.

1. Analyze furniture, architecture, or accessories for elements and principles of design components.
2. Design a space applying color theory and lighting basics.
3. Evaluate the effects that the elements and principles of design have on aesthetics and function.
4. Determine the psychological impact that the elements and principles of design have on individuals.

C3. Create designs with various media.

1. Demonstrate sketching and free hand drawing skills.
2. Explore color media applications.
3. Critique computer-aided design programs.
4. Apply creative strategies in design.

D. PRODUCTS AND MATERIALS

D1. Evaluate interior furnishings and products in meeting specific design needs.

1. Determine specific design needs.
2. Identify the characteristics of furnishings and products for a certain design need.
3. Select appropriate products to meet the needs of green design, universal design and other special needs groups.
4. Select appropriate materials and products on the basis of the properties and performance criteria.
5. Apply measuring, estimating, and pricing skills.
6. Select appropriate manufacturers, products and materials for proper care and maintenance.
7. Recognize safety, health, and environmental issues

E. PROFESSIONALISM

E1. Analyze professional practices.

1. Demonstrate professional demeanor.
2. Employ teamwork and leadership skills to enhance work environment.
3. Describe ethical and collaborative business practices.
4. Evaluate the mission, goals and objectives of professional organizations in interior design.
5. Research emerging career specializations in interior design.
6. Discuss the upcoming trends of the profession.
7. Summarize safety regulations in professional practices.

Interior Design 1
Curriculum Guide

A. ACADEMICS

ENGLISH LANGUAGE ARTS
http://ed.sc.gov/agency/programs-services/59/documents/StateBoardApprovedFinalMay14.pdf

SC Standard A1. Reading: Understanding and Using Literary Texts The student will read and comprehend a variety of literary text in print and non-print format. **(SC E1-4.1)**

- Compare/contrast ideas within and across literary text to make inferences.
- Create responses to literary text through a variety of methods (for example written works, oral and auditory presentation, discussions, media productions, and the visual and performing arts).
- Read independently for extended periods of time for pleasure.

Common Core Alignments – Anchor Standards:
http://ed.sc.gov/agency/programs-services/190/documents/CCSSI_ELAStandards.pdf
READING STANDARDS – PAGE 35
Key Ideas and Details
1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, or ideas develop and interact over the course of a text.

Range of Reading and Level of Text Complexity
10. Read and comprehend complex literary and informational texts independently and proficiently.

WRITING STANDARDS – PAGE 41
Text Types and Purposes*
1. Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.

SPEAKING AND LISTENING – PAGE 48
Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

LANGUAGE – PAGE 51

Knowledge of Language

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

SC Standard A2. Reading: Understanding And Using Informational Text The student will read and comprehend a variety of informational texts in print and non-print. **(SC E1-4.2)**

- Compare/contrast information within and across texts to draw conclusions and make inferences.
- Create responses to informational texts through a variety of methods (for example, drawings, written works, oral and auditory presentation, discussions, and media productions)
- Read independently for extended periods of time to gain information.
- Analyze information from graphic features (charts and graphs) in informational texts.

Common Core Alignments – Anchor Standards:
http://ed.sc.gov/agency/programs-services/190/documents/CCSSI_ELAStandards.pdf
READING STANDARDS – PAGE 35

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.*

8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

WRITING STANDARDS

Text Types and Purposes*

1. Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

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5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

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SC Standard A3 Reading: Building Vocabulary The student will use word analysis and vocabulary strategies to read fluently. **(SC E1-4.3)**

- Use context clues to determine the meaning of technical terms and other unfamiliar words.

- Interpret euphemisms (the substitute of a mild and pleasant expression for a harsh and blunt one) and connotations (the implicit, rather than the explicit meaning of a word) of words to understand the meaning of a given text.

Common Core Alignments – Anchor Standards:
http://ed.sc.gov/agency/programs-services/190/documents/CCSSI_ELAStandards.pdf
READING STANDARDS – PAGE 35
Craft and Structure
4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
LANGUAGE – PAGE 51
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SC Standard A4. Writing: Developing Written Communications The student will create written work that has a clear focus, sufficient detail, coherent organization, effective use of voice, and correct use of the conventions of written Standard American English. **(SC E1-4.4)**

- Organize written works using prewriting techniques, discussions, graphic organizers, models, and outlines.

- Use complete sentences in a variety of types (including simple, compound, complex, and compound-complex).

- Use grammatical conventions of written Standard American English.

- Edit written pieces for correct use of Standard American English including reinforcement of the mechanics previously taught.

Common Core Alignments – Anchor Standards:
http://ed.sc.gov/agency/programs-services/190/documents/CCSSI_ELAStandards.pdf

WRITING STANDARDS – PAGE 41

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

LANGUAGE – PAGE 51

Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
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SC Standard A5. Writing: Producing Written Communications in a Variety Of forms

The student will write for a variety of purposes and audiences. **(SC E1-4.5)**

- Create informational pieces that use language appropriate for the specific audience.
- Create technical pieces that use clear and precise language appropriate for the purpose and audience.
- Compose effective pieces of writing to respond to prompts in "on demand" situations.
- Create descriptions for use in other modes of written works (for example, personal essays, travel writing, or restaurant reviews) that use sensory images and vivid word choice.

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WRITING STANDARDS – PAGE 41

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Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

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SC Standard A6. Researching: Applying The Skills Of Inquiry And Oral Communication

The student will access and use information from a variety of sources. **(SC E1-4.6)**

- Clarify and refine a research topic.
- Use vocabulary including Standard American English that is appropriate for the particular audience or purpose.
- Use a variety of print and electronic reference materials.
- Select appropriate graphics, in print or electronic form, to support written works, oral presentations, and visual presentations.

- Use a standardized system of documentation (including a list of sources with full publication information and the use of in-text citations) to properly credit the work of others.

- Create written works, oral and auditory presentations, and visual presentations that are designed for a specific audience and purpose.

- Design and carry out research projects by selecting a topic, constructing inquiry questions, accessing resources, evaluating credibility, and organizing information.

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Educational Technology

A7. Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. (ISTE 1)

Indicator(s):

- Apply existing knowledge to generate new ideas, products, or processes.
- Create original works as a means of personal or group expression.
- Use models and simulations to explore complex systems and issues.
- Identify trends and forecast possibilities.

A8. Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. (ISTE 2)

Indicator(s):

- Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- Develop cultural understanding and global awareness by engaging with learners of other cultures.

- Contribute to project teams to produce original works or solve problems.

A9. Students apply digital tools to gather, evaluate, and use information. (ISTE 3)
Indicator(s):

- Plan strategies to guide inquiry.
- Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- Process data and report results.

A10. Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (ISTE 4)
Indicator(s):

- Identify and define authentic problems and significant questions for investigation.
- Plan and manage activities to develop a solution or complete a project.
- Collect and analyze data to identify solutions and/or make informed decisions.
- Use multiple processes and diverse perspectives to explore alternative solutions.

A11. Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. (ISTE 5)
Indicator(s):

- Advocate and practice safe, legal, and responsible use of information and technology.
- Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- Demonstrate personal responsibility for lifelong learning.
- Exhibit leadership for digital citizenship.

A12. Students demonstrate a sound understanding of technology concepts, systems, and operations. (ISTE 6)
Indicator(s):

- Understand and use technology systems.
- Select and use applications effectively and productively.
- Troubleshoot systems and applications.
- Transfer current knowledge to learning of new technologies.

NETS for Students:

Health and Safety Education

A13. The student will comprehend concepts related to health promotion to enhance health. (HSE-1)
Indicator(s):

- Describe laws and regulations related to safety and personal injury.
- Discuss ways to reduce the risk of intentional and unintentional injuries in the home, school, community, workplace, and roadways.

A14. The student will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors. (HSE-2)
Indicator(s):

- Describe ways that environmental factors can affect the health of the community.
- Examine ways that public health policies, government regulations, and socioeconomic issues affect health promotion and disease prevention.
- Examine ways that the media, advertising, and marketing practices affect the nutrition and physical activity level of individuals.
- Analyze ways that the family, peers, culture, and the media influence the mental, emotional, and social health of individuals.
- Analyze the influence of family, peers, culture, the media, technology, and other factors on health behaviors.

A15. The student will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks. (HSE-4)

Indicator(s):

- Demonstrate ways to communicate care, consideration, and respect for him- or herself and others.

A16. The student will demonstrate the ability to use decision-making skills to enhance health. (HSE-5)

Indicator(s):

- Justify when individual or collaborative decision making is appropriate.
- Distinguish healthy from unhealthy foods on a variety of restaurant menus.
- Determine when it is necessary to seek help and/or to leave an unhealthy relationship or situation

A17. The student will demonstrate the ability to use goal-setting skills to enhance health.

Indicators

- Develop and implement a personal stress management plan.

A18. The student will demonstrate the ability to practice health-enhancing behaviors and to avoid or reduce health risks. (HSE-7)

Indicator(s):

- Demonstrate a variety of health practices and behaviors that will maintain or improve the health of him- or herself and others.
- Develop injury prevention and treatment strategies for personal and family health.
- Demonstrate strategies for solving interpersonal conflicts without harming him- or herself or others.

A19. The student will demonstrate the ability to advocate for personal, family, and consumer health. (HSE-8)

Indicator(s):

- Advocate for disaster preparedness in the home, school, and community.
- Advocate for the promotion and protection of a healthy environment.
- Examine ways to encourage others to make healthy eating choices and to increase their level of physical activity.

Elementary Algebra

A20. The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representation. (EA-1)

Indicator(s):

- Communicate a knowledge of algebraic relationships by using mathematical terminology appropriately.
- Connect algebra with other branches of mathematics.
- Apply algebraic methods to solve problems in real-world contexts.
- Judge the reasonableness of mathematical solutions.
- Demonstrate an understanding of algebraic relationships by using a variety of representations (including verbal, graphic, numerical, and symbolic).
- Understand how algebraic relationships can be represented in concrete models, pictorial models, and diagrams.
- Understand how to represent algebraic relationships by using tools such as handheld computing devices, spreadsheets, and computer algebra systems (CASs).

Common Core Alignments – MATHEMATICS | HIGH SCHOOL
http://ed.sc.gov/agency/programs-services/190/documents/CCSSI_MathStandards.pdf

- **MATHEMATICS | HIGH SCHOOL—ALGEBRA – PAGE 63**
- **Seeing Structure in Expressions**
- • Interpret the structure of expressions
- • Write expressions in equivalent forms to solve problems
- **Arithmetic with Polynomials and Rational Expressions**
- • Perform arithmetic operations on polynomials
- • Understand the relationship between zeros and factors of polynomials
- • Use polynomial identities to solve problems
- • Rewrite rational expressions
- **Creating Equations**
- • Create equations that describe numbers or relationships
- **Reasoning with Equations and Inequalities**
- • Understand solving equations as a process of reasoning and explain the reasoning
- • Solve equations and inequalities in one variable
- • Solve systems of equations
- • Represent and solve equations and inequalities graphically

A21. The student will demonstrate through the mathematical processes an understanding of relationships and functions. (EA-3)
Indicator(s):

- Carry out a procedure to evaluate a function for a given element in the domain.
- Apply proportional reasoning to solve problems.

Intermediate Algebra
A22. The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representation. (IA-1)
Indicator(s):

- Apply algebraic methods to solve problems in real-world contexts.
- Understand how to represent algebraic relationships by using tools such as handheld computing devices, spreadsheets, and computer algebra systems (CASs).
- Communicate a knowledge of algebraic relationships by using mathematical terminology appropriately.

- Apply algebraic methods to solve problems in real-world contexts.
- Demonstrate an understanding of algebraic relationships by using a variety of representations (including verbal, graphic, numerical, and symbolic).

A23. The student will demonstrate through the mathematical processes an understanding of functions, systems of equations, and systems of linear inequalities. (IA-2)

Indicator(s):

- Analyze a problem situation to determine a system of linear inequalities that models the problem situation.
- Apply a procedure to write the equation of a composition of given functions.

Common Core Alignments – MATHEMATICS | HIGH SCHOOL
http://ed.sc.gov/agency/programs-services/190/documents/CCSSI_MathStandards.pdf

- **MATHEMATICS | HIGH SCHOOL –FUNCTIONS – PAGE 67**
- **Interpreting Functions**
- • Understand the concept of a function and use function notation
- • Interpret functions that arise in applications in terms of the context
- • Analyze functions using different representations
- **Building Functions**
- • Build a function that models a relationship between two quantities
- • Build new functions from existing functions
- **Linear, Quadratic, and Exponential Models**
- • Construct and compare linear, quadratic, and exponential models and solve problems
- • Interpret expressions for functions in terms of the situation they model
- **Trigonometric Functions**
- • Extend the domain of trigonometric functions using the unit circle
- • Model periodic phenomena with trigonometric functions
- • Prove and apply trigonometric identities

A24. The student will demonstrate through the mathematical processes an understanding of quadratic equations and the complex number system. (IA-3)

Indicator(s):

- Carry out a procedure to perform operations with complex numbers (including addition, subtraction, multiplication, and division).

Common Core Alignments – MATHEMATICS | HIGH SCHOOL
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Geometry

A25. The student will understand and utilize the mathematical processes of Problem solving, reasoning and proof, communication, connections, and representation. (G-1)

Indicator(s):

- Communicate knowledge of geometric relationships by using mathematical terminology appropriately.
- Demonstrate an understanding of how geometry applies to in real-world contexts (including architecture, construction, farming, and astronomy).
- Demonstrate an understanding of geometric relationships (including constructions through investigations by using a variety of tools such as straightedge, compass, Patty Paper, dynamic geometry software, and handheld computing devices).

Common Core Alignments – MATHEMATICS | HIGH SCHOOL

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- **Seeing Structure in Expressions**
- • Interpret the structure of expressions
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- **Arithmetic with Polynomials and Rational Expressions**
- • Perform arithmetic operations on polynomials
- • Understand the relationship between zeros and factors of polynomials
- • Use polynomial identities to solve problems
- • Rewrite rational expressions
- **Creating Equations**
- • Create equations that describe numbers or relationships
- **Reasoning with Equations and Inequalities**
- • Understand solving equations as a process of reasoning and explain the reasoning
- • Solve equations and inequalities in one variable
- • Solve systems of equations
- • Represent and solve equations and inequalities graphically

A26. The student will demonstrate through the mathematical processes an understanding of the properties of basic geometric figures and the relationships between and among them. (G-2)

Indicator(s):

- Infer missing elements of visual or numerical geometric patterns (including
- triangular and rectangular numbers and the number of diagonals in polygons).
- Apply properties of parallel lines, intersecting lines, and parallel lines cut by a
- transversal to solve problems.
- Use the congruence of line segments and angles to solve problems.

- Carry out a procedure to create geometric constructions (including the midpoint of a line segment, the angle bisector, the perpendicular bisector of a line segment, the line through a given point that is parallel to a given line, and the line through a given point that is perpendicular to a given line).
- Use scale factors to solve problems involving scale drawings and models.
- Use geometric probability to solve problems.
- Use direct measurement to determine the length of a segment, degree of an angle, and distance from a point to a line.

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- **Congruence**
- • Make geometric constructions
- **Circles**
- • Understand and apply theorems about circles
- **Geometric Measurement and Dimension**
- • Explain volume formulas and use them to solve problems
- • Visualize relationships between two dimensional and three-dimensional objects
- **Modeling with Geometry**
- • Apply geometric concepts in modeling situations

A27. The student will demonstrate through the mathematical processes an understanding of the properties and special segments of triangles and the relationships between and among triangles. (G-3)

Indicator(s):

- Carry out a procedure to compute the perimeter of a triangle.
- Carry out a procedure to compute the area of a triangle.
- Analyze how changes in dimensions affect the perimeter or area of triangles.
- Apply properties of isosceles and equilateral triangles to solve problems.
- Use interior angles, exterior angles, medians, angle bisectors, altitudes, and perpendicular bisectors to solve problems.
- Apply congruence and similarity relationships among triangles to solve problems.
- Apply the triangle sum theorem to solve problems.
- Use the properties of 45-45-90 and 30-60-90 triangles to solve problems.

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A28. The student will demonstrate through the mathematical processes an understanding of the properties of quadrilaterals and other polygons and the relationships between and among them. (G-4)

Indicator(s):

- Carry out a procedure to compute the perimeter of quadrilaterals, regular polygons, and composite figures.
- Carry out a procedure to find the area of quadrilaterals, regular polygons, and composite figures.
- Apply procedures to compute measures of interior and exterior angles of polygons.
- Analyze how changes in dimensions affect the perimeter or area of quadrilaterals and regular polygons.
- Apply the properties and attributes of quadrilaterals and regular polygons and their component parts to solve problems.
- Apply congruence and similarity relationships among shapes (including quadrilaterals and polygons) to solve problems.

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A29. The student will demonstrate through the mathematical processes an understanding of the properties of circles, the lines that intersect them, and the use of their special segments. (G-5)

Indicator(s):

- Carry out a procedure to compute the circumference of circles.
- Carry out a procedure to compute the area of circles.
- Analyze how a change in the radius affects the circumference or area of a circle.
- Carry out a procedure to compute the length of an arc or the area of a sector of circle.
- Apply the properties of lines that intersect circles (including two secants, two tangents, and a secant and a tangent) to solve problems.
- Apply the properties of central angles, inscribed angles, and arcs of circles to solve problems.
- Apply the properties of the component parts of a circle (including radii, diameters, chords, sectors, arcs, and segments) to solve problems.

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A30. The student will demonstrate through the mathematical processes an understanding of transformations, coordinate geometry, and vectors. (G-6)

Indicator(s):

- Use the distance formula to solve problems.
- Use the midpoint formula to solve problems.
- Apply transformations—translation, reflection, rotation, and dilation—to figures in the coordinate plane by using sketches and coordinates.
- Apply transformations (including translation and dilation) to figures in the coordinate plane by using matrices.
- Carry out a procedure to compute the surface area of three-dimensional objects (including cones, cylinders, pyramids, prisms, spheres, and hemispheres).
- Carry out a procedure to compute the volume of three-dimensional objects (including cones, cylinders, pyramids, prisms, spheres, hemispheres, and composite objects).
- Analyze how changes in dimensions affect the volume of objects (including cylinders, prisms, and spheres).
- Apply a procedure to draw a top view, front view, and side view of a three-dimensional object.
- Apply a procedure to draw an isometric view of a three-dimensional object.

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Congruence

• Make geometric constructions

Circles

• Understand and apply theorems about circles

Geometric Measurement and Dimension

• Explain volume formulas and use them to solve problems

• Visualize relationships between two dimensional and three-dimensional objects

Modeling with Geometry

• Apply geometric concepts in modeling situations

A31. The student will demonstrate through the mathematical processes an understanding of the surface area and volume of three-dimensional objects. (G-7)

Indicator(s):

- Apply congruence and similarity relationships among geometric objects to solve problems.
- Apply a procedure to draw a top view, front view, and side view of a three dimensional object.

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Precalculus

A32. The student will understand and utilize the mathematical processes of Problem solving, reasoning and proof, communication, connections, and Representation. (PC-1)

Indicator(s):

- Apply algebraic methods to solve problems in real-world contexts.
- Judge the reasonableness of mathematical solutions.
- Demonstrate an understanding of algebraic and trigonometric relationships by using a variety of representations (including verbal, graphic, numerical, and symbolic).
- Understand how algebraic and trigonometric relationships can be represented in concrete models, pictorial models, and diagrams.
- Understand how to represent algebraic and trigonometric relationships by using tools such as handheld computing devices, spreadsheets, and computer algebra systems (CASs).

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MATHEMATICS | HIGH SCHOOL—NUMBER and QUANTITY – PAGE 59

The Real Number System

• Extend the properties of exponents to rational exponents
• Use properties of rational and irrational numbers.

Quantities

• Reason quantitatively and use units to solve problems

The Complex Number System

• Perform arithmetic operations with complex numbers
• Represent complex numbers and their operations on the complex plane
• Use complex numbers in polynomial identities and equations

Vector and Matrix Quantities

• Represent and model with vector quantities.

• Perform operations on vectors.
• Perform operations on matrices and use matrices in applications.

A33. The student will demonstrate through the mathematical processes an understanding of the behaviors of trigonometric functions. (PC-5)

Indicator(s):

- Understand how angles are measured in either degrees or radians.

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MATHEMATICS | HIGH SCHOOL—NUMBER and QUANTITY – PAGE 59

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Vector and Matrix Quantities

• Represent and model with vector quantities.
• Perform operations on vectors.
• Perform operations on matrices and use matrices in applications.

Data Analysis and Probability

A34. The student will understand and utilize the mathematical processes of Problem solving, reasoning and proof, communication, connections, and representation. (DA-1)

Indicator(s):

- Execute procedures to find measures of probability and statistics by using tools such as handheld computing devices, spreadsheets, and statistical software.
- Apply the principles of probability and statistics to solve problems in real-world contexts.
- Communicate a knowledge of data analysis and probability by using mathematical terminology appropriately.
- Judge the reasonableness of mathematical solutions on the basis of the source of the data, the design of the study, the way the data are displayed, and the way the data are analyzed.
- Compare data sets by using graphs and summary statistics.

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Congruence

• Experiment with transformations in the plane
• Understand congruence in terms of rigid motions
• Prove geometric theorems
• Make geometric constructions

Similarity, Right Triangles, and Trigonometry

• Understand similarity in terms of similarity transformations

• Prove theorems involving similarity
• Define trigonometric ratios and solve problems involving right triangles
• Apply trigonometry to general triangles

Circles

• Understand and apply theorems about circles
• Find arc lengths and areas of sectors of circles

Expressing Geometric Properties with Equations

• Translate between the geometric description and the equation for a conic section
• Use coordinates to prove simple geometric theorems algebraically

Geometric Measurement and Dimension

• Explain volume formulas and use them to solve problems
• Visualize relationships between two dimensional and three-dimensional objects

Modeling with Geometry

• Apply geometric concepts in modeling situations

A35. The student will demonstrate through the mathematical processes an understanding of the design of a statistical study. (DA-2)

Indicator(s):

- Classify a data-collection procedure as a survey, an observational study, or a controlled experiment.
- Compare various random sampling techniques (including simple, stratified, cluster, and systematic).
- Analyze a data-collection procedure to classify the technique used as either simple cluster, systematic, or convenience sampling.
- Critique data-collection methods and describe how bias can be controlled.

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MATHEMATICS | HIGH SCHOOL —STATISTICS AND PROBABILITY★-PAGE 80

Interpreting Categorical and Quantitative Data

• Summarize, represent, and interpret data on a single count or measurement variable
• Summarize, represent, and interpret data on two categorical and quantitative variables
• Interpret linear models

Making Inferences and Justifying Conclusions

• Understand and evaluate random processes underlying statistical experiments
• Make inferences and justify conclusions from sample surveys, experiments and observational studies

A36. The student will demonstrate through the mathematical processes an understanding of the methodology for collecting, organizing, displaying, and interpreting data. (DA-3)

Indicator(s):

- Use manipulatives, random number tables, and technology to collect data and conduct experiments and simulations.
- Organize and interpret data by using pictographs, bar graphs, pie charts, dot plots, histograms, time-series plots, stem-and-leaf plots, box-and-whiskers plots, and scatterplots.

- Select appropriate graphic display(s) from among pictographs, bar graphs, pie charts, dot plots, histograms, time-series plots, stem-and-leaf plots, box-and whiskers plots, and scatterplots when given a data set or problem situation.
- Represent frequency distributions by using displays such as categorical frequency distributions/Pareto charts, histograms, frequency polygons, and cumulative frequency distributions/gives

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MATHEMATICS | HIGH SCHOOL —STATISTICS AND PROBABILITY★-PAGE 80
Conditional Probability and the Rules of Probability
• Understand independence and conditional probability and use them to interpret data
• Use the rules of probability to compute probabilities of compound events in a uniform probability model
Using Probability to Make Decisions
• Calculate expected values and use them to solve problems
• Use probability to evaluate outcomes of decisions

A37. The student will demonstrate through the mathematical processes an understanding of basic statistical methods of analyzing data. (DA-4)
Indicators

- Classify a variable as either a statistic or a parameter.
- Compare descriptive and inferential statistics.
- Classify a variable as either discrete or continuous and as either categorical or quantitative.
- Use procedures and/or technology to find measures of central tendency (mean, median, and mode) for given data.

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Using Probability to Make Decisions
• Calculate expected values and use them to solve problems
• Use probability to evaluate outcomes of decisions

A38. The student will demonstrate through the mathematical processes an understanding of the basic concepts of probability. (DA-5)
Indicator(s):

- Construct a sample space for an experiment and represent it as a list, chart, picture, or tree diagram.
- Use counting techniques to determine the number of possible outcomes for an event.
- Classify events as either dependent or independent.
- Categorize two events either as mutually exclusive or as not mutually exclusive of one another.
- Use the concept of complementary sets to compute probabilities.

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Using Probability to Make Decisions

• Calculate expected values and use them to solve problems
• Use probability to evaluate outcomes of decisions

Global Studies

A39. The student will demonstrate an understanding of the effects of the economic, geographic, and political interactions that took place throughout the world during the nineteenth century. (GS-4)

Indicator(s):

- Explain the economic and cultural impact of European involvement on other continents during the era of European expansion.

United States History and the Constitution

A40. The student will demonstrate an understanding of the westward movement and the resulting regional conflicts that took place in America in the nineteenth century. (USHC-3).

Indicator(s):

- Compare economic development in different regions of the country during the early nineteenth century, including agriculture in the South, industry and finance in the North, and the development of new resources in the West.

A41. The student will demonstrate an understanding of major social, political, and economic developments that took place in the United States during the second half of the nineteenth century. (USHC-5)

Indicator(s):

- Summarize developments in business and industry, including the ascent of new industries, the rise of corporations through monopolies and corporate mergers, the role of industrial leaders such as John D. Rockefeller and Andrew Carnegie, the influence of business ideologies, and the increasing availability of consumer goods and the rising standard of living.
- Summarize the factors that influenced the economic growth of the United States and its emergence as an industrial power, including the abundance of natural resources; government support and protection in the form of tariffs, labor policies, and subsidies; and the expansion of international markets associated with industrialization.

A42. The student will demonstrate an understanding of the economic boom-and-bust in America in the 1920s and 1930s, its resultant political instability, and the subsequent worldwide response. (USHC-7)

Indicator(s):

- Explain the social, cultural, and economic effects of scientific innovation and consumer financing options in the 1920s on the United States and the world, including the advent of aviation, the expansion of mass production techniques, the invention of new home appliances, and the role of transportation in changing urban life.
- Explain cultural responses to the period of economic boom-and-bust, including the Harlem Renaissance; new trends in literature, music, and art; and the effects of radio and movies.
- Compare the first and second New Deals as responses to the economic bust of the Great Depression, including the rights of women and minorities in the workplace and the successes, controversies, and failures of recovery and reform measures such as the labor movement.

A43. The student will demonstrate an understanding of the impact of World War II on United States' foreign and domestic policies. (USHC-8)

Indicator(s):

- Explain the lasting impact of the scientific and technological developments in America after World War II, including new systems for scientific research, medical advances, improvements in agricultural technology, and resultant changes in the standard of living and demographic patterns.

Economics

44. The student will demonstrate an understanding of how scarcity and choice impact the economic activity of individuals, families, communities, and nations. (ECON-1)

Indicator(s):

- Illustrate the relationship between scarcity—limited resources and unlimited human wants—and the economic choices made by individuals, families, communities, and nations, including how families must budget their income and expenses, how people use psychological and intellectual resources to deal with scarcity, and how local political entities as well as nation-states use scarce resources to satisfy human wants.
- Explain the concept of opportunity costs and how individuals, families, communities, and nations make economic decisions on that basis, including analyzing marginal costs and marginal benefits and assessing how their choices may result in trade-offs.
- Compare the four key factors of production—land, labor, capital, and entrepreneurship—and explain how they are used, including the specialization and division of labor that permits efficient use of scarce resources.

A45. The student will demonstrate an understanding of markets and the role of supply and demand in determining price and resource allocation. (ECON-2)

Indicator(s):

- Explain the law of supply and demand, including the relationships of critical determinants (e.g., consumer income, tastes, and preferences; technology; the price of inputs) and the effects of change on equilibrium, price, and quantity.

- Explain the nature and role of competition in a market economy, including the determination of market price through competition among buyers and sellers and the conditions that make industries more or less competitive, such as the effect of domestic and international competition and the quality, quantity, and price of products.
- Explain economic incentives that lead to the efficient use of resources, including monetary and nonmonetary incentives, the ways in which people change their behavior in response to incentives, the relationship of incentives to the laws of supply and demand, and the role of private property as an incentive in conserving and improving scarce resources.
- Explain the effect of shortages and surpluses in a market economy, including the effect of price controls (ceilings and floors) in causing shortages or surpluses, changes in the price of products as a result of surplus or shortage, and market mechanisms for eliminating shortages and surpluses and achieving market equilibrium.

A46. The student will demonstrate an understanding of the sources of income and growth in a free-enterprise economy. (ECON-3)

Indicator(s):

- Compare personal income distribution and functional income distribution, including how distribution of income affects public policy.
- Explain the role of entrepreneurs in a market economy, including the costs and benefits of being an entrepreneur, the expectation of profit as the incentive for entrepreneurs to accept business risks, and the effect of changes in taxation and government regulation on entrepreneurial decisions.
- Explain the causes and effects of economic growth, including the relationship between investment in human resources and in real capital, the alleviation of poverty, the increase in standards of living, and the creation of new employment opportunities.

A47. The student will demonstrate an understanding of personal economic decision making to maximize the net benefits of personal income. (ECON-4)

Indicator(s):

- Summarize types of personal economic decisions and choices that individuals make, including determining how to budget money; establishing short- and long-term financial goals and plans related to income, saving, and spending; utilizing loans and credit cards; and considering investment options.
- Explain influences on personal economic decision making and choices, including the effect of education, career choices, and family obligations on future income; the influence of advertising on consumer choices; the risks and benefits involved in short- and long-term saving and investment strategies; and the effect of taxation and interest rates on household consumption and savings.

A48. The student will demonstrate an understanding of the various economic institutions of a market economy. (ECON-5)

Indicator(s):

- Compare the significant characteristics of a market economy with those of traditional and command economies, including differences in the roles of the government, individual firms, and households in decision making; types of economic institutions; the extent of consumer sovereignty/choice; and the role of private property rights, competition, and the profit motive.
- Analyze the roles of and relationships among economic institutions in a market economy, including the banking system and its interaction with business firms and consumers, the economic circular flow model, the function of financial and securities markets, and the impact of labor unions on the American economy.

A49. The student will demonstrate an understanding of the roles that federal, state, and local governments play in the operation of markets in the United States. (ECON-6)

Indicator(s):

- Compare the various functions and roles of the government in the United States economy, including providing public goods, defining and enforcing property rights,

correcting externalities and regulating markets, maintaining and promoting competition in the market, protecting consumers' rights, and redistributing income.

- Summarize major sources of government revenue, including taxation at the federal, state, and local levels and tax revenues from personal income and payroll taxes, sales taxes, and property taxes.

A50. The student will demonstrate an understanding of the national economy and economic policies in the United States. (ECON-7)

Indicator(s):

- Compare measures of economic health, including the gross domestic product, consumer price indexes, personal income, disposable income, rates of inflation and deflation, and unemployment rates.
- Explain the types of goods and services that are funded with government revenues, including national defense, road construction and repair, public safety, health care, payments on the national debt, and education.
- Contrast the costs and benefits of the American government's economic policies, including how policies designed to reduce unemployment may increase inflation and vice versa and how investment in factories, machinery, new technology, health education, and occupational training can raise standards of living.

A51. The student will demonstrate an understanding of the principles of trade and economic development. (ECON-8)

Indicator(s):

- Explain the basic principles of international trade, including the worldwide distribution of resources, the concept of absolute and comparative advantages that leads to specialization and trade, and the concepts of balance of trade and balance of payments that are used to measure international trade.
- Summarize the outcomes of global trade, including gains made by individuals and nations through trade, increases in consumer choice and standard of living, and gains in production efficiency.

United States Government

A52. The student will demonstrate an understanding of the United States government—its origins and its functions. (USG-1)

Indicator(s):

- Summarize arguments for the necessity and purpose of government and politics, including the idea that politics enables a group of people with diverse opinions and interests to reach collective decisions, the idea that government gives people the security they need in order to reach their full potential, and the idea that the purposes of government include enhancing economic prosperity and providing for national security.

A53. The student will demonstrate an understanding of the continuing role of the United States Constitution in the defining and shaping of American government and society. (USG-3)

Indicator(s):

- Explain the organization and responsibilities of local and state governments, including the purposes and functions of state constitutions; reserved and concurrent powers in the

states; the relationships among national, state, and local levels of government; and the structure and operation of South Carolina's government.

- Summarize the function of law in the American constitutional system, including the significance of the concept of the due process of law and the ways in which laws are intended to achieve fairness, the protection of individual rights, and the promotion of the common good.

A54. The student will demonstrate an understanding of the concept of personal and civic rights and responsibilities and the role of the citizen in American democracy. (USG-5)

Indicator(s):

- Classify the rights of United States citizens as personal, political, or economic and identify the significance and source of such rights and the conflicts that can arise when these rights are limited.

Physical Science

A55. The student will demonstrate an understanding of how scientific inquiry and technological design, including mathematical analysis, can be used appropriately to pose questions, seek answers, and develop solutions. (PS-1)

Indicator(s):

- Generate hypotheses on the basis of credible, accurate, and relevant sources of scientific information.
- Use appropriate laboratory apparatuses, technology, and techniques safely and accurately when conducting a scientific investigation.
- Use scientific instruments to record measurement data in appropriate metric units that reflect the precision and accuracy of each particular instrument.
- Design a scientific investigation with appropriate methods of control to test a hypothesis (including independent and dependent variables), and evaluate the designs of sample investigations.
- Organize and interpret the data from a controlled scientific investigation by using mathematics (including formulas and dimensional analysis), graphs, models, and/or technology.

A56. The student will demonstrate an understanding of various properties and classifications of matter. (PS-3)

Indicator(s):

- Infer the practical applications of organic and inorganic substances on the basis of their chemical and physical properties.
- Classify matter as a pure substance (either an element or a compound) or as a mixture (either homogeneous or heterogeneous) on the basis of its structure and/or composition.
- Classify various solutions as acids or bases according to their physical properties, chemical properties (including neutralization and reaction with metals), generalized formulas, and pH (using pH meters, pH paper, and litmus paper).
- Distinguish chemical properties of matter (including reactivity) from physical properties of matter (including boiling point, freezing/melting point, density [with density calculations], solubility, viscosity, and conductivity).

- Explain the effects of temperature, particle size, and agitation on the rate at which a solid dissolves in a liquid.
- Compare the properties of the four states of matter—solid, liquid, gas, and plasma—in terms of the arrangement and movement of particles.

A57. The student will demonstrate an understanding of chemical reactions and the classifications, structures, and properties of chemical compounds. (PS-4)

Indicator(s):

- Explain the role of bonding in achieving chemical stability.
- Summarize evidence (including the evolution of gas; the formation of a precipitate; and/or changes in temperature, color, and/or odor) that a chemical reaction has occurred.

A58. The student will demonstrate an understanding of the nature of forces and motion. (PS-5)

Indicator(s):

- Explain the relationship among distance, time, direction, and the velocity of an object.
- Explain how the gravitational force between two objects is affected by the mass of each object and the distance between them.

A59. The student will demonstrate an understanding of the nature, conservation, and transformation of energy. (PS-6)

Indicator(s):

- Explain how the law of conservation of energy applies to the transformation of various forms of energy (including mechanical energy, electrical energy, chemical energy, light energy, sound energy, and thermal energy).
- Explain the factors that determine potential and kinetic energy and the transformation of one to the other.
- Explain work in terms of the relationship among the force applied to an object, the displacement of the object, and the energy transferred to the object.
- Represent an electric circuit by drawing a circuit diagram that includes the symbols for a resistor, switch, and voltage source.
- Compare the functioning of simple series and parallel electrical circuits.
- Compare alternating current (AC) and direct current (DC) in terms of the production of electricity and the direction of current flow.

Biology

A60. The student will demonstrate an understanding of how scientific inquiry and technological design, including mathematical analysis, can be used appropriately to pose questions, seek answers, and develop solutions. (B-1)

Indicator(s):

- Generate hypotheses based on credible, accurate, and relevant sources of scientific information.
- Use appropriate laboratory apparatuses, technology, and techniques safely and accurately when conducting a scientific investigation.
- Use scientific instruments to record measurement data in appropriate metric units that reflect the precision and accuracy of each particular instrument.
- Design a scientific investigation with appropriate methods of control to test a hypothesis (including independent and dependent variables), and evaluate the designs of sample investigations.

- Organize and interpret the data from a controlled scientific investigation by using mathematics, graphs, models, and/or technology.
- Evaluate the results of a controlled scientific investigation in terms of whether they refute or verify the hypothesis.
- Evaluate a technological design or product on the basis of designated criteria (including cost, time, and materials).
- Compare the processes of scientific investigation and technological design.
- Use appropriate safety procedures when conducting investigations.

A61 The student will demonstrate an understanding of the structure and function of cells and their organelles. (B-2)

Indicator(s):

- Explain the factors that affect the rates of biochemical reactions (including pH, temperature, and the role of enzymes as catalysts).

A62. The student will demonstrate an understanding of the flow of energy within and between living systems. (B-3)

Indicator(s):

- Summarize the overall process by which photosynthesis converts solar energy into chemical energy and interpret the chemical equation for the process.
- Summarize the basic aerobic and anaerobic processes of cellular respiration and interpret the chemical equation for cellular respiration.
- Recognize the overall structure of adenosine triphosphate (ATP)—namely, adenine, the sugar ribose, and three phosphate groups—and summarize its function (including the ATP-ADP [adenosine diphosphate] cycle).
- Summarize how the structures of organic molecules (including proteins, carbohydrates, and fats) are related to their relative caloric values.
- Summarize the functions of proteins, carbohydrates, and fats in the human body.
- Illustrate the flow of energy through ecosystems (including food chains, food webs, energy pyramids, number pyramids, and biomass pyramids).

Chemistry

A63. The student will demonstrate an understanding of how scientific inquiry and technological design, including mathematical analysis, can be used appropriately to pose questions, seek answers, and develop solutions. (C-1)

Indicator(s):

- Organize and interpret the data from a controlled scientific investigation by using mathematics (including formulas, scientific notation, and dimensional analysis), graphs, models, and/or technology.

A64. Students will demonstrate an understanding of atomic structure and nuclear processes. (C-2)

Indicator(s):

- Apply the predictable rate of nuclear decay (half-life) to determine the age of materials.

A65. The student will demonstrate an understanding of the structures and classifications of chemical compounds. (C-3)

Indicator(s):

- Identify the basic structure of common polymers (including proteins, nucleic acids, plastics, and starches).

A66. The student will demonstrate an understanding of the nature and properties of various types of chemical solutions. (C-6)

Indicator(s):

- Summarize the process by which solutes dissolve in solvents, the dynamic equilibrium that occurs in saturated solutions, and the effects of varying pressure and temperature on solubility.
- Carry out calculations to find the concentration of solutions in terms of molarity and percent weight (mass).

Physics

A67. The student will demonstrate an understanding of how scientific inquiry and technological design, including mathematical analysis, can be used appropriately to pose questions, seek answers, and develop solutions. (P-1)

Indicator(s):

- Apply established rules for significant digits, both in reading scientific instruments and in calculating derived quantities from measurement.
- Use appropriate laboratory apparatuses, technology, and techniques safely and accurately when conducting a scientific investigation.
- Use scientific instruments to record measurement data in appropriate metric units that reflect the precision and accuracy of each particular instrument.
- Design a scientific investigation with appropriate methods of control to test a hypothesis (including independent and dependent variables), and evaluate the designs of sample investigations.
- Organize and interpret the data from a controlled scientific investigation by using (including calculations in scientific notation, formulas, and dimensional analysis), graphs, tables, models, diagrams, and/or technology.
  Evaluate the results of a controlled scientific investigation in terms of whether they refute or verify the hypothesis.
- Evaluate conclusions based on qualitative and quantitative data (including the impact of parallax, instrument malfunction, or human error) on experimental results.
- Evaluate a technological design or product on the basis of designated criteria (including cost, time, and materials).
- Communicate and defend a scientific argument or conclusion.
- Use appropriate safety procedures when conducting investigations.

A68. The student will demonstrate an understanding of the conservation, transfer, and transformation of mechanical energy. (P-3)

Indicator(s):

- Apply energy formulas to determine potential and kinetic energy and explain the transformation from one to the other.
- Apply the law of conservation of energy to the transfer of mechanical energy through work.
- Explain, both conceptually and quantitatively, how energy can transfer from one system to another (including work, power, and efficiency).
- Explain, both conceptually and quantitatively, the factors that influence periodic motion.
- Explain the factors involved in producing a change in momentum (including impulse and the law of conservation of momentum in both linear and rotary systems).

- Compare elastic and inelastic collisions in terms of conservation laws.

A69. The student will demonstrate an understanding of the properties of electricity and magnetism and the relationships between them. (P-4)

Indicator(s):

- Differentiate between alternating current (AC) and direct current (DC) in electrical circuits.
- Carry out calculations for electric power and electric energy for circuits.
- Summarize the function of electrical safety components (including fuses, surge protectors, and breakers).
- Predict the cost of operating an electrical device by determining the amount of electrical power and electrical energy in the circuit.

A70. The student will demonstrate an understanding of the properties and behaviors of sound. (P-6)

Indicator(s):

- Summarize the production of sound and its speed and transmission through various media.
- Explain how frequency and intensity affect the parts of the sonic spectrum.
- Explain pitch, loudness, and tonal quality in terms of wave characteristics that determine what is heard.
- Compare intensity and loudness.
- Apply formulas to determine the relative intensity of sound.
- Apply formulas in order to solve for resonant wavelengths in problems involving open and closed tubes.
- Explain the relationship among frequency, fundamental tones, and harmonics in producing music.
- Explain how musical instruments produce resonance and standing waves.
- Explain how the variables of length, width, tension, and density affect the resonant frequency, harmonics, and pitch of a vibrating string.

A71. The student will demonstrate an understanding of the properties and behaviors of light and optics. (P-7)

Indicator(s):

- Explain the particulate nature of light as evidenced in the photoelectric effect.
- Compare color by transmission to color by reflection.
- Compare color mixing in pigments to color mixing in light.
- Use the inverse square law to determine the change in intensity of light with distance.
- Illustrate the polarization of light.
- Summarize the operation of fiber optics in terms of total internal reflection.
- Summarize image formation in microscopes and telescopes (including reflecting and refracting).
- Summarize the production of continuous, emission, or absorption spectra.
- Illustrate the diffraction and interference of light.
- Identify the parts of the eye and explain their function in image formation.

A72. The student will demonstrate an understanding of the principles of thermodynamics. (P-10)

Indicator(s):

- Summarize the first and second laws of thermodynamics.
- Explain the relationship among internal energy, heat, and work.
- Exemplify the concept of entropy.
- Explain thermal expansion in solids, liquids, and gases in terms of kinetic theory and the unique behavior of water.
- Differentiate heat and temperature in terms of molecular motion.
- Summarize the concepts involved in phase change.
- Apply the concepts of heat capacity, specific heat, and heat exchange to solve calorimetry problems.
- Summarize the functioning of heat transfer mechanisms (including engines and refrigeration systems).

Earth Science

A73. The student will demonstrate an understanding of how scientific inquiry and technological design, including mathematical analysis, can be used appropriately to pose questions, seek answers, and develop solutions. (ES-1)

Indicator(s):

- Apply established rules for significant digits, both in reading scientific instruments and in calculating derived quantities from measurement.
- Use appropriate laboratory apparatuses, technology, and techniques safely and accurately when conducting a scientific investigation.
- Use scientific instruments to record measurement data in appropriate metric units that reflect the precision and accuracy of each particular instrument.
- Design a scientific investigation with appropriate methods of control to test a hypothesis (including independent and dependent variables), and evaluate the designs of sample investigations.
- Organize and interpret the data from a controlled scientific investigation by using mathematics (including calculations in scientific notation, formulas, and dimensional analysis), graphs, tables, models, diagrams, and/or technology.
- Evaluate the results of a controlled scientific investigation in terms of whether they refute or verify the hypothesis.
- Evaluate conclusions based on qualitative and quantitative data (including the impact of parallax, instrument malfunction, or human error) on experimental results.
- Evaluate a technological design or product on the basis of designated criteria (including cost, time, and materials).
- Communicate and defend a scientific argument or conclusion.
- Use appropriate safety procedures when conducting investigations.

A74. Students will demonstrate an understanding of the internal and external dynamics of solid Earth. (ES-3)

Indicator(s):

- Summarize the formation of ores and fossil fuels and the impact on the environment that the use of these fuels has had

B. Career Paths

SC Standard: B1. Analyze career paths within the interior design industry.

FACS Nat'l Standard: 11.1 Analyze career paths within the housing, interior design, and furnishings industries.

AAFCS Interior Design Fundamentals: Career Paths 1A: Identify education, training, credentialing requirements; 1B: Summarize the roles, functions, and occupations related to interior design; 1D: Understand the attitudes and values of interior design professionals.

Council for Interior Design Accreditation (CIDA): Standard 1: Mission, Goals, and Curriculum; Standard 2: Global Contexts for Design

Academic Alignment: ELA: A1, A2, A3, A4, A5, A6, & A7; ISTE: A7, A8, A9, A10, A11, A12; HSE: A16, A18; EA: A20, A21; IA: A22; G: A25; PC: A32; DA: A34; ECON: A44, A45, A46, A47, A48, A49, A50; PS: A55; B: A60; C: A63; P: A67; ES: A73

Essential Question(s):

1. Why is it important to understand the career paths in interior design?
2. What personal attributes do you currently possess that would lead to a career in interior design?

Indicators:

What Students Should Know:

1. Roles and functions of the profession
2. Potential opportunities for employment and entrepreneurship
3. Education and training requirements
4. Attributes of professional interior designers

What Students Should Be Able to Do:

1. Determine the roles and functions of professionals engaged in housing, interiors, and furnishings careers.
2. Explore opportunities for employment and entrepreneurial endeavors.
3. Investigate education and training requirements.
4. Identify attributes of professional interior designers.

Learning Strategies:

- Invite housing & interior professionals to present career information. Brainstorm and develop interview questions for interior design professionals.
- Interview professionals and present information on specific careers to class.
- Research and define at least 5 occupations related to Interior Design.
- Explore several sources for employment and entrepreneurship.
- Create a career brochure using technology.
- Shadow professionals in chosen field.
- Research career databases for job outlook, education, training, and salary information.
- Complete career interest surveys.

Assessments: Rubrics, student self evaluation, projects, performance to demonstrate learning, open-response questions, peer conferencing, panel discussion

FACS Student Organization – Family, Careers, and Community Leaders of America (FCCLA) http://www.fcclainc.org/

APPLICATION/ASSESSMENT THROUGH FCCLA

Career Connection: ACCESS SKILLS for Career Success; SIGN ON to the Career Connection; PROGRAM Career Steps; INTEGRATE Work and Life

Dynamic Leadership: Problem Solving for Leaders; Teamwork for Leaders; Conflict Management for Leaders

Families First: Balancing Family and Career

Leaders at Work: on-the-job entrepreneurship projects; Housing, Interiors and Furnishings leadership projects

Power of One: A Better You; Speak Out for FCCLA; Working on Working

STAR Events: Career Investigation, Entrepreneurship; Interpersonal Communications; Interior Design, Job Interview

Resources:

The Ultimate Online Resource for Interior Design
Website: designeresources.com

Habitat for Humanity International
Website: http://www.habitat.org/

Home Builders Associations of South Carolina
Website: http://www.hbaofsc.com/

South Carolina Association of Realtors
Website: http://www.screaltors.org/

South Carolina State Housing Finance and Development Authority
Website: http://www.sha.state.sc.us/

United States Department of Housing and Urban Development
Website: http://portal.hud.gov/portal/page/portal/HUD

American Society of Interior Designers (ASID)
Website: http://www.asid.org/

The International Interior Design Association (IIDA)
Website: http://www.iida.org/

Interior Design Educators Council (IDEC)
Website: http://www.idec.org/

Resources Cont'd

National Council for Interior Design Qualification
Website: http://www.ncidq.org/

American Society of Interior Designers – Carolinas
Website: http://www.asidcarolinas.org/

Careers in Interior Design
Website: www.careersininteriordesign.com

www.extension.iastate.edu/Pages/housing/aahe-links.html (American Association of Housing Educators) resources to elderly housing options and preferences, community data and assessment, and other resources

www.contractor.edu/lessonplans.html (School to Work) lesson plans for grades K-6 on housing

http://msucares.com (Mississippi State University Extension Service) links to housing topics using the ãsearchä link

www.uwex.edu/ces/flp/house/f_index.html (University of Wisconsin Extension Service) housing resources including additional links for housing topics

www.ncidq.org (National Council for Interior Design) Qualifications for professional interior designers

www.aia.org (American Institute of Architecture) news and articles related to architecture

www.manufacturedhousing.org (Manufactured Housing Institute) news, statistics related to manufactured housing

www.iccweb.com (The Internet Career Connection) career resources

C. Design Basics
SC Standard: C1. Identify architectural styles and furniture design throughout history.

FACS Nat'l Standard: 11.5 Analyze design and development of architecture, interiors, and furnishings through the ages.

AAFCS Interior Design Fundamentals: 2B: Apply knowledge of history or art, interiors, and architecture
Council for Interior Design Accreditation (CIDA): Standard 8: History
Academic Alignment: ELA: A1, A2, A3, A4, A5, A6, & A7; ISTE: A7, A8, A9, A10, A11, A12; HSE: A13, A14, A19; EA: A20; IA: A22; G: A25, A26, A27, A28, A29, A30, A31; PC: A32, A33; USHC: A41, A42, A43; ECON: A49, A50, A51; USG: A52, A53
Essential Question(s):
1. What design components would you choose for your dream home?
2. Why is design important?
3. How does culture, trends in society, and family values impact design decisions?

Indicators:

What Students Should Know:
1. Time periods
2. Architectural styles
3. Historical furnishing styles

What Students Should Be Able to Do:
1. Identify major time periods affecting buildings and furnishings.
2. Analyze building characteristics for time, location, resources, and events.
3. Differentiate historical furnishing styles.

Learning Strategies:
- Develop an illustrated timeline.
- Identify and illustrate various building styles from specific periods.
- Identify and illustrate various furniture styles from specific periods.
- Create a collection of architectural styles and furniture design incorporating Photo Story.
- Create a PowerPoint that tells a story of housing or furniture style using pictures.
- Create a video introducing a chosen house or furniture style.
- Go on a field trip/Internet quest to an older city (Savannah, Charleston, Asheville, Old Salem, etc.) to view architectural styles.

Learning Strategies:

- Develop an illustrated timeline.
- Identify and illustrate various building styles from specific periods.
- Identify and illustrate various furniture styles from specific periods.
- Create a collection of architectural styles and furniture design incorporating Photo Story.
- Create a PowerPoint that tells a story of housing or furniture style using pictures.
- Create a video introducing a chosen house or furniture style.
- Go on a field trip to an older city (Savannah, Charleston, Asheville, Old Salem, etc.) to view architectural styles.
- Go on a field trip/Internet quest to authentic antique shops and museums to see firsthand furniture designs of different periods.
- Design a brochure about the historical background, architecture, and furnishings of a local site.
- Write a fictional story about a house or furniture incorporating the history or events of that time period.
- Analyze influences on architectural and furniture design and development.
- Research how design is affected by history and culture.

Assessments: Student self evaluation, student records/reflections on their work, open-response questions, peer conferencing, rubrics

FACS Student Organization-Family, Community and Career Leaders of America (FCCLA) http://www.fcclainc.org/

APPLICATION/ASSESSMENT THROUGH FCCLA

Leaders at Work: Housing, Interiors and Furnishings leadership projects

STAR Events: Applied Technology; Entrepreneurship, Interior Design

Resources:

The Ultimate Online Resource for Interior Design
Website: designeresources.com

www.amazon.com/History-Interior-Design-Furniture-Nineteenth-Century/dp/0471286761 Amazon.com: History of Interior Design and Furniture: From Ancient Egypt to ... the reader a unique approach to the history of interior space, architectural details, and furniture.

www.arttus.com/interiors_history ·Tudor, Stuart, Georgian, Gothic Period in History, Interiors, Furniture, Design Period Interiors Furniture Design, oak paneling, staircases, architectural joinery, hand carved ...

Resources:

http://www.envyfurniture.com/symbols.htm History of Interior Design Veneers and Wood Maintenance Rug Manufacturing and Care ... When designing a home, the architect and the ...

www.icom.org/vlmp (International Council of Museums) virtual library of museums

www.highpointmarket.org (High Point International Home Furnishings) home furnishings market

www.ifda.com (International Furnishing and Design Association) information about association and links

C. Design Basics

SC Standard: C2. Analyze the application of the elements and principles of design.

FACS Nat'l Standard: 11.2 Evaluate housing and design concepts and theories, including green design, in relation to available resources and options.

AAFCS Interior Design Fundamentals: 2A: Apply elements and principles of design; 2C: Illustrate color basics and color theory; 2D: Utilize creativity in interior design projects

Council for Interior Design Accreditation (CIDA): Standard 4: Design Process; Standard 10: Color & Light

Academic Alignment: ELA: A1, A2, A3, A4, A5, A6, & A7; ISTE: A7, A8, A9, A10, A11, A12; HSE A13, A14, A16, A18, A19; EA: A20, A21; IA: A22, A23, A24; G: A25, A26, A27, A28, A29, A30, A31; PC: A32, A33; PS: A55, A56, A57, A59; B: A60; C: A63, A64; P: A67, A69, A71, A72; ES: A73

Essential Question(s):

1. What elements and principles of design are found in our classroom?
2. How does color affect your mood?

Indicators:

What Students Should Know:

1. Elements and principles of design
2. Color theory and lighting basics
3. Aesthetics and function
4. Psychological impact of design

What Students Should Be Able to Do:

1. Analyze furniture, architecture, or accessories for elements and principles of design components.
2. Design a space applying color theory and lighting basics.
3. Evaluate the effects that the elements and principles of design have on aesthetics and function.
4. Determine the psychological impact that the elements and principles of design have on individuals.

Learning Strategies:

- Analyze a picture of a room addressing the elements and principles of design.
- Compile a notebook of illustration of the elements and principles of design.
- Create a texture sample project.
    1. pencil sampling using texture rubbings around school campus
    2. swatch file of wallpaper, fabrics, and accessories with various textures
    3. texture rubbings comparison on a room drawing
- Create a design portfolio and illustrate the principles and elements.
- Create a color wheel, a value and intensity chart, and color schemes.
- Find illustrations showing examples of various color schemes, lines, textures, balance and rhythm.
- Make a color choices notebook with label, mini-wheel (with appropriate colors), and magazine pictures for light on dark, dark on light, similar, monochromatic, analogous, complementary, triad, neutral, etc.
- Research psychology of color using a variety of technology and media.
- Prepare examples of "do's and don'ts" for specific rooms like hospital rooms, classrooms, etc.
- Visit a variety of commercial settings in your community (churches, medical offices, restaurants, etc) and evaluate elements and how they relate to mood. Variation: examine pictures of above.
- Create a room depicting the psychological impact of the elements and principles of design.
- View a video on feng shui.
- View colors in natural and artificial light and discuss effects (metamerism-change of color from one light to another).
- Investigate connotations of colors in different cultures.
- Conduct a scavenger hunt in a home improvement store to document on paper for a materials list (i.e.: tile with non-slip surface, glass tile for backsplash, carpet with different pile design, textured wall paper, etc.). Also on this trip they can find a unique feature in a refrigerator, compare cooktops on a range, describe the feel and appearance of different types of countertops, etc.
- Present pictures "before and after" closet reorganization and describe feelings.
- Compare and contrast two coffee tables of different materials (wood and chrome & glass) to determine actual size versus perceived size
- Compare the effects of optical illusions (light & dark colors, variations of color, vertical and horizontal lines, patterns)

Assessments: Student self evaluation, student records/reflections on their work, open-response questions, peer conferencing, rubrics, portfolios, Venn diagram

FACS Student Organization Family, Career, and Community Leaders of America (FCCLA) http://www.fcclainc.org/

APPLICATION/ASSESSMENT THROUGH FCCLA

Community Service: affordable housing projects

Families First: Parent Practice; Balancing Family and Career

Financial Fitness: Financing Your Future

Leaders at Work: Housing, Interiors and Furnishings leadership projects

Power of One: Family Ties

STAR Events: Applied Technology; Illustrated Talk, Interior Design

Resources:

The Ultimate Online Resource for Interior Design
Website: designeresources.com

www.asid.org (American Society of Interior Designers) resources for interior design, governmental affairs, jobs and other

www.accredit-id.org (Council for Interior Design Accreditation) The accrediting body for interior design higher education in the United States and Canada.

www.idec.org (Interior Design Educators Council) association for interior design educators

www.iida.com (International Interior Design Association) information about association, definition of interior designer, and other resources

www.interiordesignsociety.org/ (Interior Design Society) association of residential interior designers

http://www.bing.com/search?q=principles+and+elements+of+design+resources&src=IE-Address&first=11&FORM=PERE

Design; Elements; Principles; Examples; Resources; Connect; Principles. The principles of design are guidelines used for putting elements together to create effective ...

desktoppub.about.com/cs/designprinciples/a/principlesintro.htm

Principles of Design: Balance, Proximity, Alignment, Repetition, Contrast, and White ... The principles of design govern that placement and structure. Graphic design encompasses the ...

www.scribd.com/doc/3224103/Principles-of-Design

My tutorial about the Principles of Design, which are: -Contrast -Balance -Scale and Proportion -Repetition and Rhythm -Unity and Variety -Directional Forces -Emphasis (Focal ...

C. Design Basics
SC Standard: C3. Create designs with various media.
FACS Nat'l Standard:
AAFCS Interior Design Fundamentals: 2A: Apply elements and principles of design; 2C: Illustrate color basics and color theory; 2D: Utilize creativity in interior design projects; 4A: Utilize appropriate interior design terminology and communication skills; 4B: Evaluate the appropriate selection and use of media and studio tools;
Council for Interior Design Accreditation (CIDA): Standard 4: Design Process; Standard 6: Communication; Standard 9: Space & Form; Standard 10: Color & Light
Academic Alignment: ELA: A1, A2, A3, A4, A5, A6, & A7; ISTE: A7, A8, A9, A10, A11, A12; EA: A20, A21; IA: A22, A24; G: A25, A26, A27, A28, A29, A30, A31; PC: A32; DA: A34; ECON: A44, A45, A47, A5; PS: A55; B: A6; C: A63; P: A67, A71; ES: A73
Essential Question(s):
1. What can be done in design with a pencil besides drawing?
2. How can you illustrate a bedroom using different types of media?
3. If you were creating a computerized program for design, what would it be able to do?

Indicators:

What Students Should Know:
1. Drawing and illustration basics
2. Color media options
3. Computer-aided design programs
4. Ways to develop the creative process

What Students Should Be Able to Do:
1. Demonstrate sketching and free hand drawing skills.
2. Explore color media applications.
3. Critique computer-aided design programs.
4. Apply creative strategies in design.

Learning Strategies:
- Identify, create, and differentiate types of design drawings.
- Develop and maintain a sketchbook.
- Practice and apply the basic drawing techniques. (MAT 4.01.d Shape Dimension and Geo Relations / VIA 4.02.a Visual Arts, Relate and Connect to Transfer)
- Make a color wheel using magazine cut-outs.
- Construct a miniature or group floral or wreath design.
- Apply varied media for color, texture, or design principles using the same elevation template.
- Create an asymmetrical design using magazine pictures on a mantle, window, or table drawing.
- Create elevation foldouts (maquettes) in a shoebox or freestanding. See bottom of http://www.artsmia.org/index.php?section_id=2&exh_id=1969 or view sample at http://www.stylewithin.co.uk/interior_designers_maquette.jpg
- Design a collage using four different color media.
- Research online computer design programs comparing the ease of use, variety of furnishings, cost, quality of product, and help available.

Learning Strategies Cont'd

- Choose an element or principle of design and create a novel way of defining that element or principle through (a) model(s) or example(s) (i.e. a game, a video, a skit, a booklet, a sculpture, etc.).
- Present a product design for the home that meets a need in the home.
- Map a different way to enter your school with one major design change.
- Create a picture wall on a 9 X 12" or 12 x 18" page demonstrating continuous line.
- Draw a picture illustrating the various types of line without picking up your pen/pencil tip.

Assessments: Teacher-student conference, Student self evaluation, student records/reflections on their work, open-response questions, peer conferencing, rubrics, portfolios, Venn diagram

FACS Student Organization Family Careers and Community Leaders of America (FCCLA) http://www.fcclainc.org/

APPLICATION/ASSESSMENT THROUGH FCCLA

Leaders at Work: Housing, Interiors and Furnishings leadership projects

STAR Events: Applied Technology, Interior Design

Resources:

The Ultimate Online Resource for Interior Design
Website: designeresources.com

www.americasmart.com (Atlanta Home Furnishings Mart)

www.cadence.com (Cadence magazine) online magazine
www.colormatters.com (Color Matters) impact of color on people
www.decoratingstudio.com/directory_of_links.htm (Decorating and Interior Design Links) links to sources of furniture, house plans, accessories, trade association and building codes and other related topics
www.decorating-your-home.com (Decorating Your Home) advice and products for home decorating
http://home.att.net/~rocq/SIHwheel.html (Home.att) An interactive color wheel from Rich Franzens
www.hgtv.com (Home & Garden Television) click on the link, ãDesign and Decoratingä for a collection of how-to articles
ww.homedesignstore.com (Artifice, Inc.) Illustrated reviews computer aided drafting design and 3D
www.living.com (Fine Living.com) resources for designing a room

Resources Cont'd

http://members.cox.net/mrsparker2/vocab.htm (Cox Theory.net) web site for color theory

www.merillat.com/planning/index.asp (Merillat) kitchen planning resources

www.realsimple.com (Real Simple Magazine) with home decorating ideas

www.sanford-artedventures.com (Sanford Corporation) links to create and study art

www.sfmart.com (San Francisco Center) home furnishings merchandise mart

www.sherwin.com/DIY/interior (Sherwin-Williams Paints) with color planning guide

www.statton.com/guidepst.htm (Statton Furniture Manufacturing Company) with furniture glossary and furniture illustrations and other resources

http://members.optusnet.com.au/~charles57/Creative/Techniques/index.html

http://www.mindtools.com/pages/article/newTED_07.htm

D. Products and Materials

SC Standard: D1. Evaluate interior furnishings and products in meeting specific design needs.

FACS Nat'l Standard: 11.6 Evaluate clients' needs goals, and resources in creating design plans for housing and residential and commercial interiors.

AAFCS Interior Design Fundamentals: 5A: Select products for residential and commercial design projects. 5D: Analyze space and furniture arrangement within universal design concepts and building codes.

Council for Interior Design Accreditation (CIDA): Standard 11: Furniture, Fixtures, Equipment, and Finish Materials

Academic Alignment: ELA: A1, A2, A3, A4, A5, A6, & A7; ISTE: A7, A8, A9, A10, A11, A12; HSE: A13, A14, A15, A18, A19; EA: A20, A21; IA: A22, A23, A24; G: A25, A26, A27, A28, A29, A30, A31; PC: A32, A33; DA: A34; GS: A39; USHC: A40, A41, A42, A43; ECON: A44, A45, A46, A47, A48, A49, A50, A51; USG: A52; PS: A55, A56, A59; B: A60; C: A63, A64; P: A67, A68; ES: A73, A74

Essential Question(s):

1. What are some specific design needs?
2. Why is it important to choose different interior furnishings for specific needs?
3. Why do some pieces of furniture cost more than others?
4. Why is it necessary to know the difference in quality of interior furnishings?
5. What is important to consider in designing a livable and comfortable space?

Indicators:

What Students Should Know:

1. Specific design needs
2. Resources for interior furnishings and products
3. Eco-friendly attributes and life cycle cost (carbon foot printing) of products
4. Furnishings characteristics, value, and quality
5. Fabrication and installation methods
6. Measuring, estimating, and pricing skills
7. Care and maintenance
8. Safety, health, environmental controls

What Students Should Be Able to Do:

1. Determine the specific design needs.
2. Identify the characteristics of furnishings and products for a certain design need.
3. Select appropriate products to meet the needs of green design, universal design and other special needs groups
4. Select appropriate materials and products on the basis of the properties and performance criteria.
5. Apply measuring, estimating, and pricing skills.
6. Select appropriate manufacturers, products and materials for proper care and maintenance.
7. Recognize safety, health, and environmental issues

Learning Strategies:

- Research product information including but not limited to floor coverings, wall coverings, textiles, window treatments, furniture, lighting fixtures, kitchen and bath fixtures and equipment, accessories, and building materials.
- Evaluate various interior furnishings, appliances, and equipment, in order to provide cost and quality choices for clients.
- Select manufacturers, products, and materials considering care, maintenance, safety, and environmental issues.
- Research energy saving materials available in the market (bamboo versus wood, thermal drapes versus cotton drapes, etc.).
- Invite manufacturers and representatives to present their products to the class. Students will write a summary of the products they have seen and how they may apply the products to a design project.
- Take a field trip to furniture stores, mills, crafts studios, markets, design centers or other appropriate venues.
- Design a specific piece of furniture (for their bedroom, hold their television, desk for their computer), and a fabric (for their bedroom draperies).
- Design a room that addresses a specific need.
- Measure the desks, windows, or doors in your classroom and compare findings with your classmates.
- Measure a window, estimate the amount of fabric needed, and calculate the cost for draperies.

Assessments: Student self evaluation, student records/reflections on their work, open-response questions, peer conferencing, rubrics, panel discussion

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APPLICATION/ASSESSMENT THROUGH FCCLA

Community Service: projects to improve school, family services, child care and other public spaces

Financial Fitness: Financing Your Future

Leaders at Work: Housing, Interiors and Furnishings leadership projects

Resources:
The Ultimate Online Resource for Interior Design
Website: designeresources.com

www.crateandbarrel.com (Crate and Barrel)

www.drexelheritage.com (Drexel Heritage)

www.ethanallen.com (Ethan Allen)

www.ikea.com (IKEA)

www.action-lane.com (Lane Home Furnishings)

www.lexington.com (Lexington Furniture)

www.overstock.com/furniture/30/store.html (Overstock.com) furniture from Overstock.com (coupon code: 121728 for 10% off)

www.restorationhardware.com (Restoration Hardware)

www.spiegel.com (Spiegel Catalog)

www.thomasville.com (Thomasville Furniture)

E. Professionalism
SC Standard: E1. Analyze professional practices.
FACS Nat'l Standard: 11.8 Analyze professional practices, procedures for business profitability and career success, and the role of ethics in the housing, interiors, and furnishings indicators.
AAFCS Interior Design Fundamentals: 1C: Describe interior design professional organizations and career development; 6B: Utilize ethical and collaborative business practices; 6C: Identify sound interior design business practices; 6D: Summarize appropriate safety regulations related to interior design
Council for Interior Design Accreditation (CIDA): Standard 3: Human Behavior; Standard 5: Collaboration; Standard 7: Professionalism and Business Practice; Standard 14: Regulations
Academic Alignment: ELA: A1, A2, A3, A4, A5, A6, & A7; ISTE: A7, A8, A9, A10, A11, A12; HSE: A14, A15, A16, A17; G: A25, A26, A27, A28, A29, A30, A31; PC: A32; DA: A35, A36, A37, A38; USHC: A41; ECON: A44, A45, A46, A47, A48, A49, A50, A51; USG: A54; PS: A55, A56, A58, A59; B: A60, A62; P: A67, A68, A69, A7, A71, A72; ES: A73
Essential Question(s):
1. What professional behaviors do you currently practice?
2. How can professional practices lead to a successful interior design career?

Indicators:

What Students Should Know:
1. Professional demeanor
2. Teamwork and leadership
3. Ethical and collaborative business practices
4. Professional organizations (ASID, IIDA, IDC, IDEC, AAFCS, etc.)
5. Emerging career specializations
6. Current trends
7. Safety regulations

What Students Should Be Able to Do:
1. Demonstrate:
   a. appropriate dress.
   b. firm handshake.
   c. proper eye contact.
   d. forthright approach.
   e. ability to act and respond appropriately.
2. Employ teamwork and leadership skills to enhance work environment.
3. Describe ethical and collaborative business practices.
4. Evaluate the mission, goals and objectives of professional organizations in interior design.
5. Research emerging career specializations in interior design.
6. Discuss the upcoming trends of the profession.

   Summarize safety regulations in professional practices

Learning Strategies:

- Simulate professional interviews and demonstrate professional demeanor.
- Conduct peer evaluations.
- Role-play ethical business practices.
- Brainstorm ideas for establishing collaborative partners for business success.
- Describe ways to demonstrate professional business practices.
- Identify successful business practices.
- Demonstrate professional business dress by having a "dress for success" day.
- Design a quad foldable showing the business practices that will influence career success.
- Create a business plan using PowerPoint which depicts the effectiveness of proper business practices.
- Organize teams to solve a design problem and demonstrate in a skit how the team resolved the problem.
- Identify and describe the different styles of leadership and teamwork skills used in business.
- Interview a person in management and report important business practices they employ in their position.
- Investigate and summarize why ethical business standards are essential to a business.
- Make a tri-fold collage of safety regulations.
- Research emerging career specializations using technology.
- Design a brochure explaining the importance of career specializations (such as Green Design, Aging Market, Multigenerational Living, and Accessibility)
- Invite a guest speaker to discuss the professional organization and their value to a designer.

Assessments: Student self evaluation, student records/reflections on their work, open-response questions, peer conferencing, rubrics, panel discussion

FACS Student Organization – Family, Careers, and Community Leaders of America (FCCLA) http://www.fcclainc.org/

APPLICATION/ASSESSMENT THROUGH FCCLA

Career Connection: LINK UP to Jobs; ACCESS SKILLS for Career Success

Financial Fitness: Making Money

Fundraising: sales; management

Leaders at Work: on-the-job entrepreneurship projects; Housing, Interiors and Furnishings leadership projects

STAR Events: Entrepreneurship; Interior Design, Job Interview

Resources:

The Ultimate Online Resource for Interior Design
Website: designeresources.com

www.ncidq.org (National Council for Interior Design) Qualifications for professional interior designers

www.aia.org (American Institute of Architecture) news and articles related to architecture

www.manufacturedhousing.org (Manufactured Housing Institute) news, statistics related to manufactured housing

www.icom.org/vlmp (International Council of Museums) virtual library of museums

www.highpointmarket.org (High Point International Home Furnishings) home furnishings market

www.ifda.com (International Furnishing and Design Association) information about association and links

www.asid.org (American Society of Interior Designers) resources for interior design, governmental affairs, jobs and other

Resources:

www.accredit-id.org (Council for Interior Design Accreditation) The accrediting body for interior design higher education in the United States and Canada.

www.idec.org (Interior Design Educators Council) association for interior design educators

www.iida.com (International Interior Design Association) information about association, definition of interior designer, and other resources

www.interiordesignsociety.org/ (Interior Design Society) association of residential interior designers