2007 Mississippi Curriculum Framework

Secondary Design Technology for Fashion and Interiors
(Program CIP: 19.0901 – Apparel and Textiles, General)

Acknowledgments

Standards in this document are based on information from the following organizations:

National Standards for Family and Consumer Sciences	National Standards for Family and Consumer Sciences from the Vocational-Technical Education Consortium of States, V-TECS, Southern Association of Colleges & Schools materials used with permission.
Academic Standards	Mississippi Department of Education Subject Area Testing Program.
21st Century Skills	Reproduced with permission of the Partnership for 21st Century Skills. Further information may be found at www.21stcenturyskills.org

Preface

Secondary Design Technology for Fashion and Interiors **Research Synopsis**

This curriculum framework was originally the Occupational Clothing, Apparel and Textile Workers curriculum. Based on economic research and employment data indicating a reduction in the number of employment opportunities in the garment industry, the original occupational clothing program was converted to a new and innovative program entitled *Design Technology for Fashion and Interiors.* This new program was introduced as a pilot to students in fifteen districts in the 2005-2006 school year.

An advisory team of professionals from the clothing, interior design, and merchandising industries was created to guide the process of converting the curriculum. Advisory team members also included faculty from secondary schools, junior/community colleges, and institutions of higher learning. These advisory team members provided input related to the competencies and objectives of the program, equipment required, and necessary teacher training. The advisory team identified occupation-specific skills required in the profession of fashion and interior design to include career investigation, certification requirements, fundamentals of design, drawing techniques, basic sewing skills, textiles, equipment, lighting and space planning, furnishings and background elements, and the use of technology to create designs. Advisory team members stressed the need to incorporate the skills required to take a project from design to creation.

Instructors from schools throughout the state were also asked to give input on changes to be made to the curriculum framework. Changes suggested for the curriculum included more time for sewing, more time for each unit, and less time on technology.

Articles, books, Web sites, and other materials listed at the end of each unit were considered during the revision process. *AutoCAD® for the Apparel Industry* and *Beginnings of Interior Environments* were especially useful in providing insight into trends and issues in the field. These references are suggested for use by instructors and students during the study of the topics outlined.

Curriculum
The following state/national standards were referenced in each course of the curriculum:
- *Mississippi Department of Education Subject Area Testing Program Academic Standards*
- *21st Century Skills*
- *National Standards for Family and Consumer Sciences*

Industry and instructor comments, along with current research, were considered by the curriculum conversion team during the conversion process; and changes were made as needed and appropriate. The original clothing curriculum was totally rewritten to provide for the innovative changes. This included modifications/deletions/additions in all units of study. Specific modifications included timelines, equipment, competencies, objectives, teaching strategies, assessment strategies, references and resources, standards, and four intensive content-specific teacher professional development sessions held over a two-year period. Topics for the

professional development sessions included principles and elements of design, basic fashion design, basic fashion merchandising, basic computer skills, teaching strategy examples, basic fashion design, AutoCAD® essentials, ApparelCAD® essentials, and computerized patternmaking.

Assessment
Students will be assessed using the *Design Technology for Fashion and Interiors MS-CPAS test.*

Professional Learning
It is suggested that instructors participate in follow-up learning activities related to the following concepts:

- Web page design, including accessibility standards, Dreamweaver, and GoLive - For the latest in online and yearly Connect training provided by the RCU, please go to http://info.rcu.msstate.edu/.
- Multimedia presentations, including Director, HyperStudio, and Flash - For information on using Flash in the curriculum, visit the online website http://www.adobe.com/support/flash/tutorial_index.html
- Differentiated instruction – To learn more about differentiated instruction, go to http://www.paec.org/teacher2teacher/additional_subjects.html and click on Differentiated Instruction. Work through this online course and review the additional resources.

Foreword

Secondary vocational-technical education programs in Mississippi are faced with many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing true learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, Mississippi Code of 1972, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, ch. 487, §14; Laws, 1991, ch. 423, §1; Laws, 1992, ch. 519, §4 eff. from and after July 1, 1992; Carl D. Perkins Vocational Education Act III, 1998; and No Child Left Behind Act of 2001).

Each secondary vocational-technical course consists of a series of instructional units which focus on a common theme. All units have been written using a common format which includes the following components:

- Unit Number and Title
- Suggested Time on Task - An estimated number of clock hours of instruction that should be required to teach the competencies and objectives of the unit. A minimum of 140 hours of instruction is required for each Carnegie unit credit. The curriculum framework should account for approximately 75-80 percent of the time in the course.
- Competencies and Suggested Objectives
  - A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students will be expected to receive instruction on all competencies.
  - The suggested objectives represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level.
- Suggested Teaching Strategies - This section of each unit indicates strategies that can be used to enable students to master each competency. Emphasis has been placed on strategies which reflect active learning methodologies. Teachers should feel free to modify or enhance these suggestions based on needs of their students and resources available in order to provide optimum learning experiences for their students.
- Suggested Assessment Strategies - This section indicates strategies that can be used to measure student mastery. Examples of suggested strategies could include rubrics, class participation, reflection, and journaling. Again, teachers should feel free to modify or enhance these suggested assessment strategies based on local needs and resources.

- <u>Integrated Academic Topics, Workplace Skills, Technology Standards, and Occupational Standards</u> - This section identifies related academic topics as required in the Subject Area Assessment Program (SATP) in Algebra I, Biology I, English II, and U. S. History from 1877, which are integrated into the content of the unit. It also identifies the 21st Century Skills, which were developed by the Partnership for 21st Century Skills, a group of business and education organizations concerned about the gap between the knowledge and skills learned in school and those needed in communities and the workplace. A portion of the 21st Century Skills addresses learning skills needed in the 21st century, including information and communication skills, thinking and problem-solving skills, and interpersonal and self-directional skills. The need for these types of skills has been recognized for some time and the 21st Century Skills are adapted in part from the 1991 report from the U.S. Secretary of Labor's Commission on Achieving Necessary Skills (SCANS). Another important aspect of learning and working in the 21st century involves technology skills, and the International Society for Technology in Education, developers of the National Educational Technology Standards (NETS), were strategic partners in the Partnership for 21st Century Skills.
- <u>References</u> - A list of suggested references is provided for each unit. The list includes some of the primary instructional resources that may be used to teach the competencies and suggested objectives. Again, these resources are suggested and the list may be modified or enhanced based on needs and abilities of students and on available resources.

Table of Contents

Program Description

The Secondary Design Technology for Fashion and Interiors program is designed to prepare students for employment or postsecondary course work in the field of design with emphasis on fashion and interiors. For students interested in fashion and interior design, this program will provide basic occupational skills necessary for continuing education or careers in fashion and interiors to include fashion design, buyers for retail fashion, fashion merchandising and sales, home and home furnishing design, home furnishing manufacturing and sales, and textile or fabric design and sales. Although this program focuses on fashion and interior design, the fundamentals taught can be applied to many other areas and occupations. The basic principles and elements of design are embedded throughout the curriculum. Once a student captures the basic principles and elements of design, that knowledge can be applied to other occupations including furniture, floral, landscaping, architecture, and photography.

In addition to technical skills, students will also develop advanced skills in critical thinking, career development, applied academics, basic business practices, and leadership, life and employability skills.

This program is innovative and integrates with vocational programs such as, marketing, business, technology, drafting, and computer graphics. In addition, the curriculum includes academic standards, National Standards for Family and Consumer Sciences, and 21st Century skills. The course will provide opportunities for articulation and coordination with postsecondary Fashion, Interior Design, and Merchandising programs.

Course Outline

Design Technology for Fashion and Interiors I
Course CIP Code: 20.0301

Course Description: This course is the first year of training to prepare an individual for employment or continued education in the fashion or interior design industry. (2 – 2 ½ Carnegie units, depending upon time spent in the course).

Unit	Title	Hours
1	Orientation	5
2	Introduction to Technology for Design	5
3	The Design Profession	5
4	The Fashion Design Industry	20
5	Principles and Elements of Design	40
6	Textiles, Fibers, and Fabrics	10
7	Fashion Design Fundamentals	40
8	Equipment for Construction	5
9	Basic Construction Techniques	75
10	Fashion Merchandising	20

Design Technology for Fashion and Interiors II
Course CIP Code: 20.0390

Course Description: This course is the second year of training to prepare an individual for employment or continued education in the fashion or interior design industry. (2 – 2 ½ Carnegie units, depending upon time spent in the course).

Unit	Title	Hours
1	Orientation	3
2	Introduction to Interior Environments	20
3	The Profession of Interior Design	5
4	Interior Design Fundamentals	35
5	Lighting and Space Planning	20
6	Furnishings, Fabrics, and Background Elements	30
7	Using Technology to Create Designs and Patterns	77
8	Construction of Basic Designs	35

Design Technology for Fashion and Interiors I
Unit 1: Orientation (5 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies
1. Discuss local school policies, rules, and procedures. a. Identify school and classroom policies, rules, and procedures.	**Teaching:** • Describe key school and program policies, rules, and procedures to the class (may use the school handbook and any program-specific information). • Divide students into groups and assign each group a specific set of policies, rules, and procedures to review from the handbook/information. • Have each group construct a poster outlining the school and program policies and procedures related to the assigned topic. • Have each student read the school handbook, as well as any program-specific information, and write a report about what is expected in relation to school and program policies and procedures. • Have students take the school policies and rules home to be signed by parents and returned. **Assessment:** • Monitor group work using the Group Work Assessment Rubric located in Appendix D. • Evaluate the poster using the Poster Assessment Rubric located in Appendix D. • Evaluate each student's report using the Written Report Assessment Rubric located in Appendix D. • Assess each student for mastery of policies and procedures using a written test and file the test for documentation.
2. Describe the Design Technology for Fashion and Interiors program. a. Describe the goals of the program. b. Identify the program topics to include fashion design, interior design, merchandising, and computer technology.	**Teaching:** • Discuss and identify the goals of the program. Include fashion design, interior design, merchandising, and computer technology as related to this program. • Pass tissue paper around and have each student choose any number of sheets. On

	each sheet have students write their goals for the class, describe their major interests in design, and indicate career interests. • Using the tissue paper as their outline, have each student write a one page paper identifying their goals for this class. **Assessment:** • Monitor for participation in the tissue paper activity. • Using the Written Report Assessment Rubric located in Appendix D, evaluate each paper.
3. Examine leadership opportunities in Design Technology for Fashion and Interiors. a. Identify leadership opportunities available from student youth organizations in the school and community, including Family, Career, and Community Leaders of America (FCCLA). b. Develop a plan of work for FCCLA activities. c. Describe the personal characteristics of an effective leader. d. Identify leadership and management styles.	**Teaching:** • Describe the vocational student organization associated with the program (FCCLA), and provide an overview of opportunities to participate in leadership activities, community service projects, and competitive events. Discuss the personal characteristics of an effective leader and identify leadership and management styles. • Have students work in pairs to explore the FCCLA Web site and develop a presentation that includes the motto, creed, emblem, colors, theme, and history of the organization. • Have students participate in local officer elections modeled after the election process. Have officers campaign and prepare posters and a speech. Have members vote by secret ballot. • Have students plan a ceremony to install officers and induct members. • Have students work in teams to develop a plan of work for the year. • Have each student select and participate in a competitive event appropriate to his or her skills, aptitudes, and abilities. **Assessment:** • Monitor group work by using the Group Work Assessment Rubric found in Appendix D. • Evaluate the FCCLA presentation using the Computerized Presentation Assessment Rubric located in Appendix

	D.
	• Evaluate the plan of work for accuracy, grammar, neatness, and content.
	• Evaluate entry into competitive events by using the student organization criteria.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

1.2 Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

11.4 Demonstrate computer-aided drafting design, blueprint reading, and space planning skills required for the housing, interiors, and furnishings industry.

11.7 Demonstrate design ideas through visual presentation.

11.8 Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

13.3 Demonstrate communication skills that contribute to positive relationships.

13.4 Evaluate effective conflict prevention and management techniques.

13.5 Demonstrate teamwork and leadership skills in the family, workplace, and community.

13.6 Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.

16.5 Evaluate elements of textiles and apparel merchandising.

16.7 Demonstrate general operational procedures required for business profitability and career success.

Academic Standards

E1 Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

E2 Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

Secondary Design Technology for Fashion and Interiors

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

SUGGESTED REFERENCES

Bridges Transitions. (2005). *Choices 2005* [Computer software]. Oroville, WA: Author.

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Design Technology for Fashion and Interiors I
Unit 2: Introduction to Technology for Design (5 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Identify computer technology used in Design Technology for Fashion and Interiors.
  a. Describe the use of technology in design.
  b. Discuss the use of the personal computer, software, printers, plotter, and cameras.
  c. Demonstrate the proper use and care of technology equipment.
	Teaching:
	• Describe the use of technology in design. Have students use a word processing program to define and illustrate terms related to technology and design.
	• Divide the students into small groups and have each group research to determine the technology currently being used in the design industry. Have groups identify the technology by making a list on the board.
	• Discuss and identify the technology to be used in the classroom. Include the computer, printer, plotter, and cameras. Demonstrate how to use each piece of equipment. Include maintenance and care.
	• Discuss the use of the personal computer. Review parts of the computer, software, printer, etc. and explain how it will be used.
	• Explain the input, processing, storage, and output cycle. Have students create analogies related to the cycle.
	• Discuss the practice of backing up designs or work on the computer.
	• Have the students complete a computer literacy checklist to ensure that each student is proficient. Include basic operations, Internet, email, presentation, and spreadsheet software.
	• Invite a computer tech from the school to demonstrate the appropriate care and safety practices to use on equipment.
	• Have students investigate the reason that food or liquids should not be near the computer.
	• Demonstrate how canned air is used to clean the keyboard and the back of the computer where the fan is located.
	• Have students demonstrate proper care of the computer by using the proper wipes to clean the monitor, keyboard, and back of the PCU.

	Assessment: • Evaluate each student on the use of each piece of technology using a computer literacy checklist.

2. Explain the use of computer-aided design in Design Technology for Fashion and Interiors.
  a. Identify software technology available.
  b. Discuss the advantages of computer-aided design software in design.
	Teaching:
	• Discuss the use of CAD in design. Identify the software and provide examples of designs and patterns. Discuss how CAD is being used in the industry and the advantages and disadvantages.
	• Have each student research to determine the advantages of CAD in design and write a one page paper outlining their findings.
	Assessment:
	• Evaluate the reports using the Written Report Assessment Rubric located in Appendix D.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.
    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.
    11.4   Demonstrate computer-aided drafting design, blueprint reading, and space planning skills required for the housing, interiors, and furnishings industry.
    11.7   Demonstrate design ideas through visual presentation.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.
    13.3   Demonstrate communication skills that contribute to positive relationships.
    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.
    16.5   Evaluate elements of textiles and apparel merchandising.

Academic Standards

E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

SUGGESTED REFERENCES

Burns, L., & Bryant, N. (2004). *The business of fashion: Designing, manufacturing, and marketing.* New York: Fairchild.

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Secondary Design Technology for Fashion and Interiors

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Design Technology for Fashion and Interiors I
Unit 3: The Design Profession (5 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Examine career opportunities in the field of design.
   a. Identify careers in the field of design.
   b. Identify employment outlook, wages, and working conditions.
   c. Identify skills, education, and technology skills required for employment.
	Teaching:
	• Have students use career software and Internet resources to measure their aptitudes and abilities for particular careers.
	• Have students work in groups and use the Internet, college catalogs, industry publications, and other information to research a list of careers for which they will be qualified upon program completion of the program. Have each group orally present their findings to the class.
	• Discuss postsecondary educational opportunities available to them.
	• Have each student select a career in a field related to design and use the Occupational Outlook Handbook (book or Web site), Internet, and other resources to research job titles, educational and skill requirements, expected job growth, and entry level salaries. Have students to include current technology used in the field. Have each student report their findings in a two-page report.
	Assessment:
	• Evaluate the oral presentations using the Presentation Assessment Rubric located in Appendix D.
	• Have students submit a list of possible careers based on the measurement of their aptitudes and abilities. Provide a grade based on completion of the activity.
	• Monitor group work throughout the unit to ensure that each member participates. Evaluate the oral presentation using the Presentation Assessment Rubric located in Appendix D.
	• Evaluate the report using the Written Report Assessment Rubric located in Appendix D.

2. Discuss employability skills.
   a. Discuss work ethics, interpersonal behaviors, communication.
   b. Discuss employer expectations.
	Teaching:
	• Identify and discuss the importance of employability skills. Have students define, illustrate, and discuss ethics, interpersonal skills, and communication, as well as related terms, and discuss their importance in the workplace. Include honesty, confidentiality, integrity, punctuality, commitment, accountability, dependability, cooperation, willingness to learn, and proper notice or notice of resignation.
	• Describe human relations skills in the workplace, including attitude, behaviors, common manners and courtesies, and accepting criticism.
	• Have students role play to identify improper human relations skills, including attitudes, behaviors, manners and courtesies, and ways of handling criticism.
	• Have each student research and complete a written report on unethical activities performed recently by large companies and the impact on employees and customers.
	Assessment:
	• Monitor for participation in role play activity using the Role-Play rubric located in Appendix D.
	• Evaluate the report on unethical behaviors using the Written Report rubric located in Appendix D.
	• Continue to assess each student's employability skills throughout the year.

3. Discuss job-seeking skills.
   a. Complete job applications and resume.
   b. Practice interview skills.
   c. Explain the purpose and importance of a design portfolio.
	Teaching:
	• Discuss how to locate a job.
	• Have students locate current positions available in the state and region. Students may use the resources at the Career Center or search newspapers, professional journals, the Internet, and other relevant publications.
	• Explain the importance of the application process, and identify the differences in a job application and a resume. Discuss the

	importance of completing a job application and resume correctly. Include neatness, spelling, grammar, punctuation, and hand-written versus typed.
	• Have students complete a job application and develop a resume.
	• Discuss the importance of the job interview and describe appropriate and non-appropriate interview techniques.
	• Divide students into teams of two and have them complete a mock interview with one team member as the interviewer and the other as the interviewee, or ask Advisory Committee members to interview students.
	• Discuss the parts of a resume and cover letter, and provide each student a written sample.
	• Have each student use the Internet or newspapers to choose a job for which they are qualified and prepare a resume and cover letter that can be used to apply for the selected job.
	• Discuss the importance and purpose of a design portfolio when seeking a position in the field. Include types of portfolios, layout, and content. Provide illustrations of portfolios.
	• Have each student begin the process of developing a portfolio. This can be used for the entire program.
	Assessment:
	• Evaluate the job opportunities list for accuracy of content.
	• Evaluate the job application, resume, and cover letter for content and neatness.
	• Evaluate the interview process using the Interview Assessment Rubric located in Appendix D.
	• Evaluate the design of the portfolio using the Portfolio Assessment Rubric located in Appendix D.

STANDARDS

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FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

    11.1   Analyze career paths within the housing, interiors, and furnishings industry.
    11.8   Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

    13.1   Analyze functions and expectations of various types of relationships.
    13.2   Analyze personal needs and characteristics and their impact on interpersonal relationships.
    13.3   Demonstrate communication skills that contribute to positive relationships.
    13.4   Evaluate effective conflict prevention and management techniques.
    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.

    16.1   Analyze career paths within the textiles and apparel design industry.
    16.7   Demonstrate general operational procedures required for business profitability and career success.

Academic Standards

E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness

CS2   Financial, Economic, and Business Literacy

CS3   Civic Literacy

CS4   Information and Communication Skills

CS5   Thinking and Problem-Solving Skills

CS6   Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors I
Unit 4: The Fashion Design Industry   **(20 hours)**

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Describe fashion and the fashion industry.
  a. Define fashion.
  b. Describe the fashion cycle.
  c. Identify terms associated with the fashion industry to include the following: fad, fashion, fashion babies, classic, trends, avant-garde, retro, croquis, couture, haute couture, flat (sketch), mood board, presentation board, attire, vintage, ready-to-wear, collections prêt-a-porter.
  d. Discuss factors that affect fashion.
  e. Discuss how the Industrial Revolution influenced fashion to include the invention of the sewing machine and the cotton gin, piece-work, mass production, and ready to wear.
  f. Identify current trade magazines.
	Teaching:
	• Define fashion and discuss how current technology is influencing fashion.
	• Explain the fashion cycle and the purpose of fashion babies. Discuss the origins of fashion babies and how they were used in the industry.
	• Define and correctly pronounce the terms associated with the fashion industry.
	• Provide an illustration of a mood board and discuss its purpose in the design process.
	• Have students practice pronouncing the terms correctly.
	• Discuss the factors that affect fashion to include the economy, war, religion, and technology.
	• Using the Internet, have students work in groups to research how fashion has been influenced by trade, war, and technology over the centuries. Have students present their findings to the class using computer technology.
	• Discuss the Industrial Revolution and its influence on fashion.
	• Have students compare the production of fabric and clothing after the Industrial Revolution and discuss in class.
	• Have students research on the Internet and explain the contribution each of the following made toward the development of the garment industry: Elias Howe, Isaac Singer, Ebenezer Butterick, and James McCall.
	• Discuss the importance and identify current trade magazines.
	• Have students locate current trade magazines and select an article to read and summarize by writing a one page report.
	Assessment:
	• Evaluate the presentation using the

	Presentation Assessment Rubric located in Appendix D. • Monitor for participation using the Group Work Assessment Rubric located in Appendix D. • Evaluate oral presentation on the research findings using the Computerized Presentation Assessment Rubric located in Appendix D. • Evaluate the one page report using the Written Report Assessment Rubric located in Appendix D.

2. Discuss today's fashion industry.
   a. Identify the types of fashion designers.
   b. Compare haute couture production and prêt-a-porter production.
   c. Identify leading designers.
	Teaching:
	• Identify and discuss the types of fashion designers. Identify current leading designers by name and type.
	• Have students locate different types of designers using the resources on the Internet. Have students make a bulletin board of their favorite designers using colorful illustrations.
	• Explain and define haute couture and prêt-a-porter production and provide illustrations of each. Discuss how these production methods are used in the industry.
	• Using the Internet, have students research a designer, and make an oral presentation to the class.
	Assessment:
	• Evaluate the bulletin board for content and accuracy using the Bulletin Board/Visual Display Assessment Rubric located in Appendix D.
	• Evaluate the research and oral presentations using the Presentation Assessment Rubric located in Appendix D.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

Secondary Design Technology for Fashion and Interiors

1.2 Demonstrate transferable and employability skills in community and workplace settings.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.
13.3 Demonstrate communication skills that contribute to positive relationships.
13.5 Demonstrate teamwork and leadership skills in the family, workplace, and community.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.
16.1 Analyze career paths within the textiles and apparel design industry.
16.5 Evaluate elements of textiles and apparel merchandising.

Academic Standards

E1 Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2 Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3 Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4 Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.
E5 Complete oral and written presentations which exhibit interaction and consensus within a group.
E9 Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.
E10 Use language and critical thinking strategies to serve as tools for learning.
H1 Explain how geography, economics, and politics have influenced the historical development of the United States in the global community.
H2 Describe the impact of science and technology on the historical development of the United States in the global community.
H3 Describe the relationship of people, places, and environments through time.
H4 Demonstrate the ability to use social studies tools (e.g., timelines, maps, globes, resources, graphs, a compass, technology, etc.).

21st Century Skills

CS1 Global Awareness
CS2 Financial, Economic, and Business Literacy
CS3 Civic Literacy
CS4 Information and Communication Skills
CS5 Thinking and Problem-Solving Skills

CS6   Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors I
Unit 5: Principles and Elements of Design (40 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Discuss the elements of design.
   a. Identify the elements of design to include color, shape, line, texture, and space.
   b. Demonstrate the use of the elements of design.
	Teaching:
	• Define, discuss, and identify the elements of design to include line, shape, space, texture, and color. Provide illustrations of each element. Explain that designers use these elements to create designs.
	• Divide the class into five groups. Each group will represent one of the design elements: color, shape, line, texture, and space. Have the students in each group locate examples of their design element. Have the students use magazines and the Internet. Have each group discuss the use of the element in the illustration.
	• Have each student develop an oral presentation using examples of the elements. Have each student orally define the elements and explain to the class how why it is important in creating a good design.
	Assessment:
	• Evaluate each group on the examples of the assigned element. Use the Group Work Assessment Rubric located in Appendix D to evaluate the group.
	• Evaluate the oral presentation for content and accuracy of elements and use the Presentation Assessment Rubric located in Appendix D to evaluate the presentation.

2. Discuss the principles of design.
   a. Identify the principles of design to include balance, proportion, emphasis, and harmony.
   b. Demonstrate the use of the principles of design.
	• Define, discuss and identify the principles of design to include balance, proportion, emphasis, rhythm, and harmony. Explain that designers use these principles to create designs.
	• Divide the class into five groups. Each group will represent one of the design principles: balance, proportion, emphasis, and harmony. Have the students in each group to locate examples of their design principle. Have the students use magazines and the Internet. Have each group to discuss the use of the principle in

	the illustration.
	• Have each student develop an oral presentation using examples of the principles. Have each student orally define the principles and explain to the class why it is important in creating a good design.
	Assessment:
	• Evaluate each group on the examples of the assigned principle. Use the Group Work Assessment Rubric located in Appendix D to evaluate the group.
	• Evaluate the oral presentation for content and accuracy of elements and use the Presentation Assessment Rubric located in Appendix D to evaluate the presentation.

3. Discuss the impact of color in design.
   a. Identify the color principles.
   b. Identify hue, value, and intensity
   c. Identify primary and secondary colors.
   d. Identify warm and cool colors.
   e. Identify tint and shade.
   f. Label the color wheel.
   g. Identify the color schemes.
	Teaching:
	• Discuss the impact of color in design and identify the principles of color. Explain all the different ways that color is used to include symbols, temperature, movement, and mood.
	• Discuss and illustrate hue, intensity, value, primary, secondary, warm, cool, tint, and shades of color.
	• Have students analyze the garments that they are wearing for hue, intensity, value, primary, secondary, warm, cool, tint and shades of color.
	• Display and discuss the color wheel.
	• Hand out a blank color wheel and have students complete it with crayons, colored pencils, or paints. This same color wheel can be used as a reference when choosing or creating their color schemes for design.
	• Have students complete a matching color terms activity sheet.
	• Discuss and provide illustrations of the different color schemes.
	• Ask each student to describe in writing how they would accentuate or minimize areas of their body using illusions created by color.
	Assessment:
	• Evaluate the color wheel for accuracy.

	• Evaluate the terms activity sheet for accuracy. • Evaluate the body exercise based on accuracy.

4. Illustrate color principles in design.
    a. Explain the principles of color.
    b. Explain the color schemes.
    c. Discuss monochromatic, analogous, complementary, split-complementary, triad, and accented neutral colors.
    d. Develop a visual illustration of a color scheme.
	Teaching:
	• Discuss and explain the color principles as applied to design. Identify and describe the five color schemes.
	• Have students use scraps of fabric to create an illustration of a color scheme. Have students label their illustration to indicate the color scheme used.
	• Have students make a visual display of a color scheme for a garment.
	Assessment:
	• Evaluate the fabric activity for accuracy.
	• Evaluate the color scheme activity for accuracy.
	• Evaluate the visual display for content and accuracy using the Poster Assessment Rubric located in Appendix D.

5. Describe the design equation.
    a. Explain the design equation.
    b. Illustrate the design equation.
	Teaching:
	• Explain and illustrate the design equation. Explain that a good designer will use each of the elements and principles to develop a design.
	• Have students locate an illustration of a harmonious outfit and describe how each of the design elements and principles work together to create a good design.
	• Have students collect illustrations of clothes that have vertical, horizontal, diagonal, and curved lines. Have students use felt-tipped pens to highlight the dominant lines.
	Assessment:
	• Evaluate the illustrations based on accuracy of design elements and principles.
	• Evaluate the illustrations based on highlighted dominant lines.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS

Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS

Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

    11.3   Evaluate the use of housing and interior furnishing and products in meeting specific design needs.

    11.5   Analyze influences on architectural and furniture design and development.

    11.7   Demonstrate design ideas through visual presentation.

FCS 13. INTERPERSONAL RELATIONSHIPS

Demonstrate respectful and caring relationships in the family, workplace, and community.

    13.2   Analyze personal needs and characteristics and their impact on interpersonal relationships.

    13.3   Demonstrate communication skills that contribute to positive relationships.

    13.4   Evaluate effective conflict prevention and management techniques.

    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.

FCS 16. TEXTILES AND APPAREL

Integrate knowledge, skills, and practices required for careers in textiles and apparel.

    16.2   Evaluate fiber and textiles materials.

    16.3   Demonstrate apparel and textiles design skills.

    16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.

    16.5   Evaluate elements of textiles and apparel merchandising.

Academic Standards

E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

E7   Discover the power and effect of language by reading and listening to selections from various literary genres.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors I
Unit 6: Textiles, Fibers, and Fabrics (10 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Discuss the origin and characteristics of fibers.
  a. Identify the origins of natural and manufactured fibers.
  b. Select appropriate fibers for garments.
	Teaching:
	• Identify and discuss the origins of natural and manufactured fibers. Identify the four natural fibers. Identify the man-made fibers. Provide examples of each.
	• Have students work in teams of two and use the Internet to locate and research manmade fibers and how they are made.
	• Divide students into groups and have groups recommend the type of fibers you would choose for a sweater, a shirt, a swimsuit, and a pair of jeans. Have them explain their choices.
	Assessment:
	• Evaluate team research of manmade fibers for content and accuracy.
	• Monitor for student participation.
	• Evaluate group project for accuracy.
	• Use a written test to evaluate natural and manufactured fibers.

2. Discuss methods of fabric construction.
  a. Identify woven fabrics and its construction and discuss its advantages and disadvantages.
  b. Identify knit fabrics and its construction and discuss its advantages and disadvantages.
	Teaching:
	• Identify and discuss the construction of woven and knitted fabrics. Compare and illustrate the advantages and disadvantages of woven and knitted fabrics.
	• Have students collect a variety of fabric swatches. Identify each by name of fabric. List the characteristics and end use of each fabric swatch. Mount each on an index card.
	• Have students utilize the Internet or other resources to research the manufacturing process involved in producing fibers to fabric. Have students summarize their findings and present them to the class.
	Assessment:
	• Evaluate index cards for content and accuracy.
	• Evaluate research and presentation for accuracy and content.

3. Discuss the importance of labels. a. Identify the information found on various fabric labels.	**Teaching:** • Discuss the importance of fabric labels. • Identify and discuss fabric labels and the information found on a label. • Have students read and identify information on various care labels to include washing, drying, ironing, bleaching, and dry cleaning. • Provide students with various labels and hangtags and work in pairs to identify and interpret the information and quiz each other on the information. **Assessment:** • Monitor for student participation in label reading activity. • Have students score each other on written label quiz.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.
    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.
    11.2   Evaluate housing decisions in relation to available resources and options.
    11.3   Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
    11.5   Analyze influences on architectural and furniture design and development.
    11.7   Demonstrate design ideas through visual presentation.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.
    13.3   Demonstrate communication skills that contribute to positive relationships.
    13.4   Evaluate effective conflict prevention and management techniques.
    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.

16.2   Evaluate fiber and textiles materials.
16.3   Demonstrate apparel and textiles design skills.
16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.
16.5   Evaluate elements of textiles and apparel merchandising.

Academic Standards

B3   Investigate cell structures, functions, and methods of reproduction.
E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.
E5   Complete oral and written presentations which exhibit interaction and consensus within a group.
E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors I
Unit 7: Fashion Design Fundamentals (40 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Discuss the proper selection of clothing.
   a. Identify body types.
   b. Discuss the selection of clothing for different body types.
	Teaching:
	• Explain that each individual has a body shape and that body shapes are formed by height, proportions and size. Explain that two people may be the same height and weight; but have different body shapes. Identify body frames to include large, small and medium. Discuss and identify long and short torsos and long and short legs. Provide illustrations of different body shapes to include the triangle, hour-glass, rectangle, and inverted triangle.
	• Using the digital camera, make a picture of each student and have the student evaluate his/her own body shape.
	• Have each student take their own body measurements.
	• Discuss how the selection of clothing can enhance body shapes and features. Provide illustrations of good and bad choices of clothing for each body shape. Refer back to the principles and elements of design.
	• Have each student use their picture and measurements to apply the elements and principles of design to their own body type. Have students sketch their body type and select garments that would enhance his/her best features.
	Assessment:
	• Evaluate each student for accuracy in determining his/her body shape.
	• Evaluate garment selection exercise for accuracy based on the principles and elements of design.

2. Identify the parts that make up a garment to include bodice, sleeves, collar, lapels, skirt, etc.	**Teaching:** • Discuss and identify the different parts that make up a garment. Include the bodice, sleeves, collar, lapels, skirts, etc. Provide examples of garments and patterns as an illustration of the parts. • In groups have students cut various illustrations of garments from magazines

	and label the parts. • Have students collect illustrations of the various parts of a garment and develop a bulletin board. **Assessment:** • Monitor for participation and provide grade for label assignment using the Group Participation Assessment Rubric located in Appendix D. • Evaluate bulletin board for content, accuracy, creativity, etc. using the Bulletin Board/Visual Display Assessment Rubric located in Appendix D.

3. Identify and describe garment styles.
  a. Identify and describe the various styles of dresses to include sheath, shift, A-line, tent, empire, high waist, dropped waist, blouson, princess, shirtwaist, coatdress, and asymmetrical closing.
  b. Identify and describe the various styles of necklines to include jewel/round, scoop, u-neck, v-neck, square, crew, boat/bateau, cowl, sweetheart, keyhole, halter, and off-the-shoulder.
  c. Identify and describe the various styles of collars to include the shirt, button-down, convertible, notched, shawl, pointed flat, peter pan, puritan, turtleneck, ruff, mandarin, band, tuxedo, jabot, bow tie, sailor, wing, Chelsea, and sailor.
  d. Identify and describe the various styles of sleeves to include set-in, raglan, kimono, dolman, sleeveless, cap, short, roll-up, three quarter, long, butterfly, puff, petal, cowl, bishop, angel, bell, leg of mutton, Juliette, peasant, cuff, shirt cuff, French cuff, ruffle, and circular flounce.
  e. Identify and describe the various styles of shirts to include the dress, sport, polo, western, t-shirt, tank, fitted, tunic, tuxedo, camisole, and
	Teaching:
	• Discuss and provide examples or illustrations of the various dress styles, styles of necklines, collars, sleeves, shirts, jackets, and skirts. Discuss the history of the various styles.
	• Discuss how different styles look on various body types. Provide examples.
	• Using the Internet, have students research the current fashion Web sites to discover the styles of dresses, necklines, collars, sleeves, shirts, jackets, skirts, and pants that are fashionable for the year.
	• Provide each student with different styles of dresses, necklines, collars, sleeves, shirts, jackets, skirts, and pants. Have each student search magazines to find garments that illustrate the assigned style.
	• Have students cut examples of various neckline styles from fabric. Have each student try on the different styles to see which ones compliment the shape of their face and neck.
	• Have each student research collar and sleeve styles to determine which ones have a historical background. Have them identify the time in history that the collar/sleeve was popular.
	Assessment:
	• Monitor for participation in the research activity. Have students print their findings.
	• Evaluate magazine illustrations for accuracy.
	• Monitor for participation in neckline style

Henley. f. Identify and describe the various styles of skirts to include the straight, dirndl, a-line, gathered, yoke, 4-gore, 6-gore, knife-pleated, single front pleat, stitched box pleats, wrap, flared, and circular. g. Identify and describe the various styles of pants to include the flared, straight, tapered, Bermuda shorts, short shorts, knickers, jumpsuit, jeans, leggings, warm-up, culottes, and palazzo/full. h. Identify and describe the various styles of jackets and coats to include the blazer, double-breasted, boxy, fitted, vest, tuxedo, cardigan, bolero, Chanel, safari, bomber/varsity, windbreaker, parka, pea, poncho, trench, polo, chesterfield, wrap, and cape.	activity. • Evaluate the history activity for accuracy. • Evaluate using a written test.
4. Discuss garment shapes. a. Explain natural, tubular, bell, and full shapes.	**Teaching:** • Explain natural, tubular, bell, and full shapes. The natural shape follows the body's outline. The tubular shape is rectangular with vertical emphasis. The dominant lines go up and down. The bell shape combines both vertical and horizontal lines in a silhouette. The full shape has more horizontal and curved lines than other shapes. Provide illustrations and examples of each. • Provide examples of each type of shape in the form of garments and have students identify the shape. Have students discuss which garment shapes are best for each body shape. **Assessment:** • Evaluate the students for accuracy in identifying the shapes of garments using a written test. Monitor for participation in the discussion of garment shapes.
5. Create a fashion design. a. Create a mood board. b. Sketch a fashion design on a croquis figure illustrating the principles and	**Teaching:** • Provide an illustration of a mood board and discuss the purpose in the design process. • Have students create a mood board and

elements of design. c. Select appropriate fabric swatches for the design. d. Create a flat showing all of the design features and construction details.	provide an oral explanation of the board. • Discuss and demonstrate sketching a design on a croquis figure. As you work, explain the principles and elements of design that you are illustrating. Discuss the tools that a fashion designer would use in sketching to include paper, pencils, erasers, rulers, etc. • Have each student create a sketch using the principles and elements of design. • Explain how to create a flat and illustrate for the class. Discuss how to use the sketch and break it down into the design features and construction details. • Have the student use the design sketched to create a flat detailing the design features and construction details. • Identify and discuss the steps in developing a garment. Provide illustrations for the class. **Assessment:** • Evaluate the mood board using the Mood Board Assessment Rubric located in Appendix D. • Evaluate the sketch for the appropriate use of the principles and elements of design. • Evaluate the flat for accuracy in detail.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

    13.3   Demonstrate communication skills that contribute to positive relationships.
    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.
  16.2   Evaluate fiber and textiles materials.
  16.3   Demonstrate apparel and textiles design skills.
  16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.
  16.5   Evaluate elements of textiles and apparel merchandising.

Academic Standards

A1   Recognize, classify, and use real numbers and their properties.
A2   Recognize, create, extend, and apply patterns, relations, and functions and their applications.
E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.
E5   Complete oral and written presentations which exhibit interaction and consensus within a group.
E6   Explore cultural contributions to the history of the English language and its literature.
E7   Discover the power and effect of language by reading and listening to selections from various literary genres.
E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.
E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.
E10 Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors I
Unit 8: Equipment for Construction (5 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Identify equipment used in construction.
   a. Identify large and small equipment in the lab.
   b. Identify the parts of equipment.
   c. Explain how each piece of equipment will be utilized.
	Teaching:
	• Demonstrate the use of each piece of small equipment used in the lab.
	• Divide the students into groups and have each group complete a scavenger hunt for the items used in design/sewing. Provide the groups with written details of the appearance of each item and how it is to be used in the lab. Mark each item in the hunt with the approximate purchase price. Once the items are found, have each group use the calculator on the computer to obtain a total estimated purchase price of all items. Equipment in hunt will include seam ripper, shears, etc.
	• Discuss and demonstrate the use of the sewing machine. Include the parts and how each part is used in the process.
	• Provide the students with a diagram of a sewing machine. Have the students label the sewing machine parts.
	Assessment:
	• Evaluate each group on the scavenger hunt for finding each item and obtaining the correct purchase price.
	• Evaluate the diagram for accuracy in labeling of parts on a written test.

2. Demonstrate the safe and proper use of equipment.
   a. Describe safety procedures for the use of each piece of equipment.
   b. Discuss maintenance of each piece of equipment.
	Teaching:
	• Demonstrate the process of changing the needles in the machines in the lab.
	• Discuss the safety procedures used in the lab setting, such as handing shears to classmate and unplugging machines or computer by plug not cord.
	• Have students practice the safe way to operate all equipment in the lab.
	• Have students practice cleaning the machines.
	• Demonstrate adding water, care, and cleaning of the iron.
	• Divide students into groups and let them peer educate each other about the

	maintenance and safety of the sewing machine and small equipment. **Assessment:** • Evaluate the students on safety in the lab using a written test. File the test.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

      1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

      13.3   Demonstrate communication skills that contribute to positive relationships.
      13.4   Evaluate effective conflict prevention and management techniques.
      13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
      13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.

      16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.

Academic Standards

A1   Recognize, classify, and use real numbers and their properties.
A2   Recognize, create, extend, and apply patterns, relations, and functions and their applications.
A3   Simplify algebraic expressions, solve and graph equations, inequalities and systems in one and two variables.
A5   Utilize various formulas in problem-solving situations.
E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4 Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5 Complete oral and written presentations which exhibit interaction and consensus within a group.

E7 Discover the power and effect of language by reading and listening to selections from various literary genres.

E8 Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9 Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10 Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1 Global Awareness
CS2 Financial, Economic, and Business Literacy
CS3 Civic Literacy
CS4 Information and Communication Skills
CS5 Thinking and Problem-Solving Skills
CS6 Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors I
Unit 9: Basic Construction Techniques (75 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies
1. Define terminology associated with basic construction techniques to include the following: • Grainlines: Lengthwise, crosswise, and bias • Selvage • Understitching • Seam allowance • Grading • Top stitch • Gathering stitch • Stay stitch • Darts • Basting • Backstitch • Slipstitch	**Teaching:** • Lead a discussion on evaluating fabrics. Include locating lengthwise, crosswise, and bias lines with the help of a picture. Provide examples of each. • Have students tear fabric and feel the pull or lack of pull in each direction, esp. bias. • Have students compare the hard finish of the selvage to the cut side. • Provide students with a miniature neck facing and blouse top pattern to cut, attach and apply under stitching. • Discuss and demonstrate how to find a 5/8″ seam allowance using a pattern, hem gauge, tape measure, and yard stick. Demonstrate sewing a 5/8″ seam at the machine. • Have students find the correct 5/8″ seam allowance using the different tools and make the seam at the machine. • Discuss and demonstrate the trimming and grading of a seam. • Have students use one of the seam allowances to trim/grade the seam. • Describe and demonstrate top stitching on the edge of a project and discuss where and when it should be used. • Have students sew a top stitch. • Discuss and demonstrate how to sew gathering stitches and where they should be used. • Using a 5/8″ seam and 3/8″ seam allowance, have students sew a sample of the gathering stitches to make a 12″ piece of fabric fit a 6″ piece of fabric. Have students make two samples of the gathering stitches and list three places this may be used. • Discuss and demonstrate the stay stitch. • Have students make samples of the stay stitch. • Identify, discuss, and demonstrate sewing

	darts.
	• Discuss and demonstrate basting using the machine and hand stitching. Compare and contrast the samples of each.
	• Have students sew a basting stitch by hand and on the machine.
	• Have each student practice the slipstitch.
	Assessment:
	• Evaluate students for accuracy on each sewing technique using a checklist.

2. Interpret and select a pattern, fabric, and notions.
   a. Determine measurements.
   b. Select appropriate design.
   c. Choose a pattern.
   d. Interpret pattern envelope directions to include pattern symbols.
   e. Determine the type and amount of fabric and notions required.
   f. Determine amount of fabric required.
	Teaching:
	 • Discuss and demonstrate the proper methods of measurement to determine the correct pattern size. Provide examples of garments.
	 • Discuss the importance of the hem gauge by measuring the lines drown on paper to different 1/8″ using different fractions. Demonstrate by using a pair of pants that need to be hemmed to show students the correct use of the measurement.
	 • Explain and demonstrate the use of a pattern catalog to choose a simple garment. Include how to locate the pattern in the pattern cabinet/drawers. Explain the numbering system of the patterns and how they correspond to the cabinets/drawers.
	 • Have students visit a store to locate pattern catalogs, select patterns, and find patterns by numbers and sizes.
	 • Explain and demonstrate how to use the pattern to determine the appropriate types of fabric, the amount of fabric required, and the cutting of the fabric from the bolt.
	 Assessment:
	 • Use a checksheet to evaluate the students on the pattern search activity.
	 • Evaluate the fabric costing activity for accuracy.

3. Demonstrate pattern layout, cutting, and marking
   a. Identify and interpret the pattern guide sheet and pieces.
   b. Explain separating pattern pieces.
   c. Select the proper cutting layout on the guide sheet to include pattern
	Teaching:
	 • Identify, explain, and provide an illustration of all parts of a pattern to include the guide sheet and pieces.
	 • Assign each student a part of the guide sheet to study. Have the student explain the purpose of the part and how it is to be

view, size, and width of fabric. d. Lay the fabric out, place the pattern pieces, and secure the pattern pieces to the fabric. e. Demonstrate proper cutting techniques. f. Demonstrate marking the fabric based on the pattern piece.	used in making project. • Explain and demonstrate selecting the correct pattern pieces and how to separate them. • Have students separate the pattern pieces according to the view they choose or view assigned. • Discuss the cutting layout diagrams on the guide sheet and how it applies to the view, size, and width of fabric. • Divide students into pairs. Have them select guide sheets from the available stock. Assign a view and have them circle the correct cutting layout and underline the size and fabric width for that view. • Using a simple pattern, explain, and demonstrate the proper way to lay the fabric out, place the pattern on the fabric along the correct grain line, and secure the pattern to the fabric with either pins, weights, or both. • Discuss and demonstrate the proper way to hold the fabric down with one hand while cutting with the other. Demonstrate the safe and proper way to use the rotary cutter. • Have students working in small groups practice laying the fabric out, placing the pattern on the fabric correctly, securing the pattern to the fabric, and cutting the fabric correctly. • Explain the purpose of marking and symbols on pattern pieces. Demonstrate marking and how the symbols are used in sewing. • Provide students with an 8 1/2 x 11 sample of a blouse front, have the students cut out and mark each piece correctly. **Assessment:** • Evaluate the students on their explanation of the part and purpose of the guide sheet. • Evaluate the students for accuracy in separating the pattern pieces according to the view. • Evaluate the students for accuracy in

	selecting the correct cutting layout, size, and fabric width. • Evaluate the students for accuracy in laying the fabric out, placing the pattern correctly on fabric, and securing the pattern to the fabric, and cutting the fabric correctly. • Evaluate the blouse front pattern for accuracy in marking.
4. Practice basic construction techniques.	**Teaching:** • Have students make a fashion project using the correct sewing techniques. **Assessment:** • Evaluate the fashion project for accuracy in all techniques.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

1.1 Analyze strategies to manage multiple individual, family, career, and community roles and responsibilities.
1.2 Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

11.3 Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
11.5 Analyze influences on architectural and furniture design and development.
11.6 Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
11.7 Demonstrate design ideas through visual presentation.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

13.3 Demonstrate communication skills that contribute to positive relationships.
13.5 Demonstrate teamwork and leadership skills in the family, workplace, and community.
13.6 Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL

Integrate knowledge, skills, and practices required for careers in textiles and apparel.

    16.2   Evaluate fiber and textiles materials.

    16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.

    16.5   Evaluate elements of textiles and apparel merchandising.

Academic Standards

A1   Recognize, classify, and use real numbers and their properties.

A2   Recognize, create, extend, and apply patterns, relations, and functions and their applications.

A5   Utilize various formulas in problem-solving situations.

E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

E7   Discover the power and effect of language by reading and listening to selections from various literary genres.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

H4   Demonstrate the ability to use social studies tools (e.g., timelines, maps, globes, resources, graphs, a compass, technology, etc.).

21st Century Skills

CS1   Global Awareness

CS2   Financial, Economic, and Business Literacy

CS3   Civic Literacy

CS4   Information and Communication Skills

CS5   Thinking and Problem-Solving Skills

CS6   Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors I
Unit 10: Fashion Merchandising (20 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Discuss activities involved in fashion merchandising.
  a. Define fashion merchandising.
  b. Distinguish between wholesale and retail.
  c. Discuss the classifications of retailers.
  d. Analyze the relationship of customer service, satisfaction, and communication on the success of business.
	Teaching:
	• Define, illustrate, and discuss fashion merchandising. It is the planning, buying, and selling of fashion to offer the right merchandise blend to meet consumer demands.
	• Have each student write a definition of fashion merchandising before the lecture begins. Compare their first definitions to the one discussed in the class.
	• Discuss and differentiate between wholesale and retail markets.
	• Divide the students into small groups and have them use the Internet to research and locate examples of wholesale and retail businesses.
	• Identify and discuss the classifications of retailers to include general merchandisers, discounters, off-pricers, specialty stores, department stores, mom-n-pops, and kiosks.
	• Divide the students into small groups and have them use the Internet to research and locate examples of the different classifications of retailers.
	• Discuss and define customer service, satisfaction, and communication in the success of a business.
	• Provide a case study that illustrates good and bad customer service. Have the students analyze the case study to determine what went wrong and how to correct the problem.
	Assessment:
	• Monitor the definition exercise for participation.
	• Monitor for group work using the Group Work Rubric located in Appendix D.
	• Evaluate the research activity for accuracy.
	• Evaluate the case study activity using the Case Study Rubric located in Appendix

	D.

2. Demonstrate the use of retail mathematics.
   a. Calculate the cost of a garment.
   b. Calculate the mark-up of a garment.
   c. Calculate the retail price of a garment.
	Teaching:
	• Discuss the use of math in business and explain its importance.
	• Provide students with pricing formulas used in industry and demonstrate making calculations correctly.
	Assessment:
	• Evaluate mathematical calculations for accuracy.

3. Discuss the role of merchandising in the design industry.
   a. Discuss the importance of advertising.
   b. Describe visual merchandising and its impact on consumer purchasing.
   c. Assemble a visual merchandising presentation.
	Teaching:
	• Discuss the importance of advertising in the fashion industry. Identify and provide illustrations of fashion advertising.
	• Have students research and locate a variety of fashion advertising examples.
	• Discuss visual merchandising and the impact that it has on consumer purchasing. Explain how the principles and elements of design are used in visual merchandising.
	• Assemble an example of a visual merchandising presentation and explain to it to the students.
	• Have each student create product displays.
	Assessment:
	• Evaluate the product displays using the Bulletin Board/Visual Display Assessment Rubric located in Appendix D.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS

Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

   1.1   Analyze strategies to manage multiple individual, family, career, and community roles and responsibilities.

   1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS

Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

11.1   Analyze career paths within the housing, interiors, and furnishings industry.
11.3   Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
11.6   Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
11.7   Demonstrate design ideas through visual presentation.
11.8   Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS

Demonstrate respectful and caring relationships in the family, workplace, and community.

13.3   Demonstrate communication skills that contribute to positive relationships.
13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL

Integrate knowledge, skills, and practices required for careers in textiles and apparel.

16.2   Evaluate fiber and textiles materials.
16.3   Demonstrate apparel and textiles design skills.
16.5   Evaluate elements of textiles and apparel merchandising.
16.6   Evaluate the components of customer service.
16.7   Demonstrate general operational procedures required for business profitability and career success.

Academic Standards

A1   Recognize, classify, and use real numbers and their properties.
A2   Recognize, create, extend, and apply patterns, relations, and functions and their applications.
A3   Simplify algebraic expressions, solve and graph equations, inequalities and systems in one and two variables.
A5   Utilize various formulas in problem-solving situations.
A8   Analyze data and apply concepts of probability.
E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

E7   Discover the power and effect of language by reading and listening to selections from various literary genres.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors II
Unit 1: Orientation (3 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies
1. Review and discuss local school policies, rules, and procedures. a. Review school and classroom policies, rules, and procedures.	**Teaching:** • Review and describe key school and program policies, rules, and procedures to the class (may use the school handbook and any program-specific information). • Divide students into groups and assign each group a specific set of policies, rules, and procedures to review from the handbook/information. • Have each group verbally summarize the school and program policies and procedures related to the assigned topic. • Have students take the school policies and rules home to be signed by parents and returned. **Assessment:** • Assess each student for mastery of policies and procedures using a written test, and file the test for documentation. • Monitor group work using the Group Work Assessment Rubric located in Appendix D.

2. Review and examine leadership opportunities in Design Technology for Fashion and Interiors.
  a. Discuss leadership opportunities available from student youth organizations in the school and community, including Family, Career, and Community Leaders of America (FCCLA).
  b. Develop a plan of work for FCCLA activities.
	Teaching:
	• Review and describe the vocational student organization associated with the program (FCCLA), and provide an overview of opportunities to participate in leadership activities, community service projects, and competitive events. Discuss the personal characteristics of an effective leader and identify leadership and management styles.
	• Have students work in pairs to review the FCCLA Web site.
	• Have students participate in local officer elections modeled after the election process. Have officers campaign and prepare posters and a speech. Have members vote by secret ballot.
	• Have students plan a ceremony to install officers and induct members.
	• Have students work in teams to develop a

	plan of work for the year.
	• Have each student select and participate in a competitive event appropriate to his or her skills, aptitudes, and abilities.
	Assessment:
	• Monitor group work by using the Group Work Assessment Rubric found in Appendix D.
	• Evaluate the plan of work for accuracy, grammar, neatness, and content.
	• Evaluate entry into competitive events by using the student organization criteria.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

1.1   Analyze strategies to manage multiple individual, family, career, and community roles and responsibilities.

1.2   Demonstrate transferable and employability skills in community and workplace settings.

1.3   Analyze the reciprocal impact of individual and family participation in community activities.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

13.3   Demonstrate communication skills that contribute to positive relationships.

13.4   Evaluate effective conflict prevention and management techniques.

13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.

13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.

16.7   Demonstrate general operational procedures required for business profitability and career success.

Academic Standards

E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

Secondary Design Technology for Fashion and Interiors

E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

E7   Discover the power and effect of language by reading and listening to selections from various literary genres.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness

CS2   Financial, Economic, and Business Literacy

CS3   Civic Literacy

CS4   Information and Communication Skills

CS5   Thinking and Problem-Solving Skills

CS6   Interpersonal and Self-Directional Skills

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Design Technology for Fashion and Interiors II
Unit 2: Introduction to Interior Environments (20 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Identify and discuss the broad scope of interior design.
  a. Define interior design and discuss the responsibilities of an interior designer.
  b. Differentiate between decorators and designers.
  c. Identify and discuss the relationship between interior designers and other allied professionals.
  d. Identify specific career specializations in interior design.
	Teaching:
	• Explain the definition of an Interior designer and discuss the responsibilities of interior designers. Provide examples using study boards to outline the responsibilities. Discuss the difference between decorators and designers. Explain relationships between interior designers and other professionals.
	• Advocate the importance/impact of the Americans with Disabilities Act (ADA) on the total population through the study of the ADA Guidelines on the Internet.
	• Have students evaluate a bathroom using ADA guidelines.
	• Have students evaluate an entrance into a building for compliance with ADA guidelines.
	• Have students evaluate their home based on ADA guidelines.
	• Explain the need for designers to have education on sustainable design to remain competitive.
	• Identify sustainable design products and provide an analysis by using a Web site that offers sustainable resources.
	• Have each student select commercial or residential idea and design a digital board using sustainable products.
	• Explain the different career specializations of Residential Interior Design and Contract/Commercial Design.
	Assessment:
	• Evaluate the analysis of the bathroom, entrance, and home for accuracy in compliance with ADA guidelines.
	• Evaluate the digital board for accuracy in the use of sustainable products.

2. Discuss the history of interior design. a. Identify and discuss the basic style categories to include formal traditional, formal modern, informal	**Teaching:** • Define, discuss, and identify the History of Interior Design including formal traditional, formal modern, informal

provincial, informal modern, and eclectic.	provincial, informal modern, and eclectic styles. Provide examples of each by using magazines, books, Internet, etc. • Have each student research their favorite style and write a one page paper listing the features of their style. Have students include why this style is their favorite and include pictures of the style. Have students present their research to the class. **Assessment:** • Using the Presentation Assessment Rubric and the Written Report Assessment Rubric located in Appendix D, evaluate each paper and presentation.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

    11.1   Analyze career paths within the housing, interiors, and furnishings industry.
    11.2   Evaluate housing decisions in relation to available resources and options.
    11.3   Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
    11.5   Analyze influences on architectural and furniture design and development.
    11.6   Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
    11.7   Demonstrate design ideas through visual presentation.
    11.8   Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

    13.3   Demonstrate communication skills that contribute to positive relationships.
    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

Academic Standards

A1   Recognize, classify, and use real numbers and their properties.
A2   Recognize, create, extend, and apply patterns, relations, and functions and their applications.
A5   Utilize various formulas in problem-solving situations.
E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.
E5   Complete oral and written presentations which exhibit interaction and consensus within a group.
E7   Discover the power and effect of language by reading and listening to selections from various literary genres.
E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.
E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.
E10   Use language and critical thinking strategies to serve as tools for learning.
H1   Explain how geography, economics, and politics have influenced the historical development of the United States in the global community.
H2   Describe the impact of science and technology on the historical development of the United States in the global community.
H3   Describe the relationship of people, places, and environments through time.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

SUGGESTED REFERENCES

Allen, P. S., & Jones, L. M., & Stimpson, M. F. (2004). *Beginnings of interior environments*. Upper Saddle River, NJ: Pearson/Prentice Hall.

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Secondary Design Technology for Fashion and Interiors

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Sherwood, R. (2001). *Homes: Today and tomorrow*. New York: Glencoe/McGraw-Hill.

Design Technology for Fashion and Interiors II
Unit 3: The Profession of Interior Design (5 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies
1. Identify the steps to becoming an interior designer. 　a. Examine the educational requirements of an interior designer. 　b. Identify the work experience required to become an interior designer. 　c. Identify and discuss the licensing, registration, and continuing education requirements for interior design. 　d. Identify professional organizations for interior designers.	**Teaching:** • Explain the educational process, experience, and examination for an interior designer. • Using the Internet, have students research to find schools that are accredited with professional status. Have them select 20 schools from the FIDER Web site and answer the following on questions about each school: Number of students in the program, number of students with Web sites, and classification of students with Web sites. • Have students locate Web sites of interior design students and analyze the different types of projects required. Have each student make a list of the types of projects required of interior designers. • Using the Internet, have students research the different professional organizations and develop a list that contains the name of the organization, mission or goal, standards, licensing, etc. • Using professional resources, such as professional journals, school library, and the Internet, have students write a one page paper on the philosophy of Interior Design. **Assessment:** • Using a checklist of Web sites from accredited interior design programs, evaluate the list and questions for accuracy of content. • Evaluate the list of types of projects for accuracy and completeness. • Evaluate the list of professional organizations for accuracy. • Using the Written Report Assessment Rubric located in Appendix D, evaluate the one page paper.

| 2. Identify and discuss emerging careers within the field of interior design.

   a. Discuss the employment outlook for interior designers. | **Teaching:**
• Discuss the different career opportunities in the design industry.
• If possible, have design industry professional as guest speakers.
• Have each student develop a list of questions for guest speakers. Combine the list and assign each student one or two questions to ask. After each guest speaker completes the presentation and leaves, have the students as a group discuss the answers provided.
• Have each student consider that he/she is about to launch his/her career in interior design. Have him/her pretend that they have been given the opportunity to promote his/her self to either a potential employer or client. Have the student develop a one minute presentation that will make a good first impression and promote their work.
• Using key questions, ask each student to prepare a written statement answering the question, "Is Entrepreneurship for You?" Have each student present their answer to the class for feedback.
Assessment:
• Using the Presentation Assessment Rubric located in Appendix D, evaluate each one minute presentation.
• Using the Written Report and Presentation Rubrics located in Appendix D, evaluate each written statement and presentation. |

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS

Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

    1.1   Analyze strategies to manage multiple individual, family, career, and community roles and responsibilities.

    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

11.1	Analyze career paths within the housing, interiors, and furnishings industry.
11.2	Evaluate housing decisions in relation to available resources and options.
11.3	Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
11.5	Analyze influences on architectural and furniture design and development.
11.6	Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
11.7	Demonstrate design ideas through visual presentation.
11.8	Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

13.3	Demonstrate communication skills that contribute to positive relationships.
13.5	Demonstrate teamwork and leadership skills in the family, workplace, and community.
13.6	Demonstrate standards that guide behavior in interpersonal relationships.

Academic Standards

E1	Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2	Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3	Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4	Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.
E5	Complete oral and written presentations which exhibit interaction and consensus within a group.
E8	Read, discuss, analyze, and evaluate literature from various genres and other written material.
E9	Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.
E10	Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1	Global Awareness
CS2	Financial, Economic, and Business Literacy
CS3	Civic Literacy
CS4	Information and Communication Skills
CS5	Thinking and Problem-Solving Skills

Secondary Design Technology for Fashion and Interiors

CS6   Interpersonal and Self-Directional Skills

SUGGESTED REFERENCES

Allen, P. S., & Jones, L. M., & Stimpson, M. F. (2004). *Beginnings of interior environments*. Upper Saddle River, NJ: Pearson/Prentice Hall.

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Design Technology for Fashion and Interiors II
Unit 4: Interior Design Fundamentals (35 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Describe the elements of interior design.
   a. Identify the elements of interior design to include space, line, shape and mass, texture, light, color, and pattern.
   b. Demonstrate the use of the elements of interior design.
	Teaching:
	• Discuss and identify the elements of design and they pertain to interiors. Include space, line, shape and mass, texture, light, color, and pattern. Provide examples of each and demonstrate how they should be used.
	• Have each student complete a notebook of images that represent structural/decorative design and the elements. Have the student label each image.
	Assessment:
	• Assess the notebook for content and accuracy using the Notebook Rubric located in Appendix D.

2. Describe the principles of interior design.
   a. Identify the principles of interior design to include scale and proportion, balance, rhythm, emphasis, and harmony.
   b. Demonstrate the use of the principles of interior design.
	Teaching:
	• Discuss and identify the principles of design as pertained to interiors. Provide examples of each and demonstrate how they should be used.
	• Have each student complete a notebook of images that represent structural/decorative design and the principles. Have the student label each image. (Notebooks can be combined.)
	Assessment:
	• Assess the notebook for content and accuracy using the Notebook Rubric located in Appendix D.

3. Discuss the impact of color in interior design.
   a. Review the categories of color to include warm, cool, and neutral.
   b. Review the color wheel.
   c. Review and discuss the three dimensions of color to include hue, value, and intensity.
   d. Create color schemes to include achromatic, monotone, monochromatic, analogous, and complementary.
   e. Discuss the psychological effects of
	Teaching:
	• Define, discuss, and identify the impact of color as it pertains to interior design.
	• Have students complete a notebook of images that represent color schemes discussed. (Notebooks can be combined.)
	• Have students render (color) a given interior in two color schemes, and label them.
	Assessment:
	• Assess the notebook for content and accuracy using the Notebook Rubric located in Appendix D.

individual colors. f. Identify the interactions between colors and the elements and principles of design to include space, texture, size, proportion, balance, juxtaposition of colors, and light. g. Discuss the application of color to interior backgrounds. h. Discuss the selection of a color scheme. i. Describe color forecasting. j. Develop a visual color scheme for interior design.	• Evaluate the color scheme rendering for accuracy and good color usage.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

    11.2   Evaluate housing decisions in relation to available resources and options.
    11.3   Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
    11.5   Analyze influences on architectural and furniture design and development.
    11.6   Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
    11.7   Demonstrate design ideas through visual presentation.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

    13.3   Demonstrate communication skills that contribute to positive relationships.
    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

Academic Standards

E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

SUGGESTED REFERENCES

Allen, P. S., & Jones, L. M., & Stimpson, M. F. (2004). *Beginnings of interior environments*. Upper Saddle River, NJ: Pearson/Prentice Hall.

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Design Technology for Fashion and Interiors II
Unit 5: Lighting and Space Planning (20 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Discuss lighting in interior design.
   a. Identify natural and artificial light sources.
   b. Discuss lighting for various areas and activities.
	Teaching:
	• Describe, discuss, and identify lighting as related to interior design. Define and discuss natural and artificial lighting and sources.
	• Have each student evaluate foot-candles of different lamp sources in a light box.
	Assessment:
	• Evaluate the light activity for accuracy.

2. Describe space planning as related to interior design.
   a. Describe the purpose of the floor plan.
   b. Discuss space planning for specific rooms.
   c. Analyze residential floor plans.
	Teaching:
	• Define, discuss, and identify requirements for planning space to include programming, anthropometric data, and specific room needs.
	• Create an anthropometric chart with the class. Discuss the chart and compare the measurements to national averages.
	• Create floor plans of bedrooms, bathrooms, living rooms, and dining rooms with stencils and cutouts and discuss with the class.
	• Have students create a floor plan.
	• Have students pin up their floor plans, In a group, have students critique the plans and discuss the similarities and differences.
	• Analyze three residential floor plans and write a short paper of the analysis.
	Assessment:
	• Evaluate the anthropometric chart activity using the Group Participation Assesement Rubric located in Appendix D.
	• Evaluate the floor plans for accuracy.
	• Evaluate the written paper using the Written Report Assessment Rubric located in Appendix D.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS

Secondary Design Technology for Fashion and Interiors

Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

 1.2 Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS

Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

 11.2 Evaluate housing decisions in relation to available resources and options.
 11.3 Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
 11.4 Demonstrate computer-aided drafting design, blueprint reading, and space planning skills required for the housing, interiors, and furnishings industry.
 11.5 Analyze influences on architectural and furniture design and development.
 11.6 Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
 11.7 Demonstrate design ideas through visual presentation.
 11.8 Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS

Demonstrate respectful and caring relationships in the family, workplace, and community.

 13.3 Demonstrate communication skills that contribute to positive relationships.
 13.5 Demonstrate teamwork and leadership skills in the family, workplace, and community.
 13.6 Demonstrate standards that guide behavior in interpersonal relationships.

Academic Standards

A1 Recognize, classify, and use real numbers and their properties.
A2 Recognize, create, extend, and apply patterns, relations, and functions and their applications.
E1 Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2 Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3 Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4 Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.
E5 Complete oral and written presentations which exhibit interaction and consensus within a group.
E7 Discover the power and effect of language by reading and listening to selections from various literary genres.
E8 Read, discuss, analyze, and evaluate literature from various genres and other written material.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

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Sherwood, R. (2001). *Homes: Today and tomorrow*. New York: Glencoe/McGraw-Hill.

Design Technology for Fashion and Interiors II
Unit 6: Furnishings, Fabrics, and Background Elements   (30 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Describe the use of furniture and accessories.
  a. Identify the types of furniture.
  b. Identify the general classifications of furniture styles.
  c. Discuss accessories to include functional and decorative.
  d. Discuss the selection, grouping, and placement of accessories.
	Teaching:
	• Define, discuss, and identify furniture and accessories as a major supporting element of interior design. Using magazines, Internet, catalogs, etc.; identify the types of furniture, general classifications of furniture styles, functional and decorative accessories, and grouping and placement of accessories.
	• Have students continue to build a notebook of images of furniture types, furniture styles, functional and decorative accessories, and examples of grouping and placement of accessories. (Notebooks can be combined.)
	Assessment:
	• Evaluate the notebook for completeness and accuracy using the Notebook Rubric located in Appendix D.

2. Discuss textiles as related to interior design.
  a. Review natural and manmade fibers.
  b. Review fabric construction to include woven and non-woven.
  c. Discuss textile selection for interiors.
	Teaching:
	• Define, discuss, and identify textiles as a major supporting element of interior design. Using magazines, Internet, catalogs, etc.; identify natural and manmade fibers, woven and non-woven fabric construction, and the selection of textiles for interiors.
	• Using construction paper, have each student create a weaving example of three weaving styles.
	• Have students continue to build a notebook of images/examples of textiles, and fibers. (Notebooks can be combined.)
	Assessment:
	• Evaluate the notebook for completeness and accuracy using the Notebook Rubric located in Appendix D.

3. Discuss flooring, ceilings, walls, doors, and windows, and window treatments as related to interior design. a. Identify and discuss the types of flooring to include categories of hard	**Teaching:** • Define, discuss, and identify flooring as a major supporting element of interior design. Using magazines, Internet, catalogs, etc., to identify different types of

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and soft flooring.
b. Identify and discuss paint and wall coverings.
c. Discuss types of window treatments for various windows.

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flooring including hard and soft. Discuss the design considerations for flooring.
- Have students continue to build a notebook of images of flooring. (Notebooks can be combined.)
- Define, discuss, and identify ceilings and walls as major supporting elements of interior design. Using magazines, the Internet, catalogs, etc., identify different types of ceilings and walls including plaster, wall board, wood, and masonry.
- Discuss and provide examples of paints, finishes, wall coverings, and wallpaper. Discuss the design considerations for selecting wall materials and finishes.
- Have students collect and identify samples of different types of wall coverings.
- Have students continue to build a notebook of images of ceilings and walls. (Notebooks can be combined.)
- Define, discus, and identify doors and windows as major supporting elements of interior design. Using magazines, Internet, catalogs, etc., identify different types of doors by operation, door design and placement, basic types of windows, hard and soft window treatments, window hardware, drapery, and curtain headings. Discuss the design considerations for selecting doors and windows.
- Have students identify different window types, window treatments, door types and weaving images on an activity sheet.
- Have students continue to build a notebook of images of doors and windows. (Notebooks can be combined.)

Assessment:
- Evaluate the notebook for completeness and accuracy using the Notebook Rubric located in Appendix D.

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4. Create an interior design.
   a. Design a room.
   b. Create a presentation board of the design.
	Teaching:
	• Have students complete an interior design project from design to presentation.
	Assessment:
	• Evaluate the interior design project for accuracy in all techniques.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.
    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.
    11.2   Evaluate housing decisions in relation to available resources and options.
    11.3   Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
    11.4   Demonstrate computer-aided drafting design, blueprint reading, and space planning skills required for the housing, interiors, and furnishings industry.
    11.5   Analyze influences on architectural and furniture design and development.
    11.6   Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
    11.7   Demonstrate design ideas through visual presentation.
    11.8   Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.
    13.3   Demonstrate communication skills that contribute to positive relationships.
    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.
    16.2   Evaluate fiber and textiles materials.
    16.3   Demonstrate apparel and textiles design skills.
    16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.
    16.5   Evaluate elements of textiles and apparel merchandising.

16.7   Demonstrate general operational procedures required for business profitability and career success.

Academic Standards

A1   Recognize, classify, and use real numbers and their properties.
A2   Recognize, create, extend, and apply patterns, relations, and functions and their applications.
E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.
E5   Complete oral and written presentations which exhibit interaction and consensus within a group.
E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.
E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.
E10   Use language and critical thinking strategies to serve as tools for learning.

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

SUGGESTED REFERENCES

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Secondary Design Technology for Fashion and Interiors

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Design Technology for Fashion and Interiors II
Unit 7: Using Technology to Create Designs and Patterns   **(77 hours)**

Competencies and Suggested Objectives	Suggested Strategies for Competencies

1. Demonstrate the basic use of computers and software in the design process.
  a. Define and discuss the use of computers and software in the design process.
  b. Demonstrate the use of basic AutoCAD® commands to include the straight line, arch, circle, rectangle, zoom, real time, and pan commands.
  c. Edit using basic editing commands to include copy, move, erase, undo, trim, extend, and mirror.
  d. Define and demonstrate drawing with precision using polar, ortho, otrack, and osnap.
	Teaching:
	• Discuss how businesses and industry use computers and software as an aid in the design process. Identify AutoCAD® as one of the major softwares used by industry.
	• Using the projector, locate the basic AutoCAD® commands and demonstrate their use.
	• Have the students practice and demonstrate the use of basic commands to draw the straight line, arch, circle, rectangle, zoom, real time, and pan.
	• Using the projector, locate the basic AutoCAD® edit commands and demonstrate their use.
	• Have the students practice and demonstrate the use of basic edit commands.
	• Discuss and define precision drawing as it applies to design using the ortho, otrack, and osnap commands. Include for ortho and osnap the end point, midpoint, center of circle, nodes, intersection, and tangent.
	• Using the projector, demonstrate precision drawing. Identify the precision drawing commands and how to use each.
	• Have the students practice and demonstrate precision drawing using the commands.
	• Using the projector, discuss, demonstrate, and create a basic layout. A basic layout is a storyboard used for presentation.
	• Have the students practice and create a basic design.
	Assessment:
	• Using the Basic AutoCAD® Checklist located in Appendix D, evaluate each student's accuracy using basic commands.
	• Using the Basic AutoCAD® Edit Checklist located in Appendix D, evaluate each student's accuracy using basic edit

	commands.
	• Using the Basic AutoCAD® Precision Drawing Checklist located in Appendix D, evaluate each student's accuracy in precision drawing.
2. Demonstrate the use of technology for illustration. 　a. Identify the types of illustrations used in fashion design to include floats, specification drawings or flats. 　b. Discuss the use of croquis figures in computer aided design. 　c. Explain the purpose of a fashion library. 　d. Illustrate a design using technology.	**Teaching:** • Explain that through the use of AutoCAD®, a designer can easily create pictorial examples of their designs. Define flats, floats, and spec drawings and provide examples of each. Explain that plotting and printing a drawing are the same procedure. Using AutoCAD®, demonstrate the creation of these examples. • Explain and demonstrate the use of croquis figures using computer technology. • Have the students practice making illustrations using the snowman design. • Explain the purpose of a fashion library. Explain that designs of garments and garment parts can be saved in a special file to be used again later. Demonstrate setting up a drawing file or library. • Have the students save the snowman design to their library. **Assessment:** • Evaluate the illustration of the snowman using the Illustration Assessment Rubric located in Appendix D.
3. Demonstrate the creation of surface designs. 　a. Define and illustrate creative surface design. 　b. Discuss historic and ethnic influences on creative surface design. 　c. Demonstrate and explain how computer technology can be used to create surface designs. 　d. Create surface designs using technology.	**Teaching:** • Explain to the students that surface design encompasses the coloring, patterning, and structuring of fiber and fabric. This includes dyeing, painting, printing, stitching, embellishing, quilting, weaving, knitting, felting, and papermaking. Provide examples of each. Discuss how surface designs are used in the industry to include fabrics, wallpapers, silk-screened print designs, etc. • Discuss historic and ethnic influences on creative surface design. Provide examples of designs created with historic or ethnic inspirations. Include the cultures of

	Indian, African, American Indian, Russian, Turkish, Bulgarian, Asian, etc.
	• Have student's research surface design to locate examples of creative surface design. Have students identify the historic and ethnic influences on the designs. Have students make a visual display of examples and label each by type.
	• Explain that computers and software programs are used to create many surface designs. The computer enables a designer to create a pattern or design and copy and repeat those elements while layering and separating colors. Using AutoCAD®, demonstrate how to copy and repeat to create a basic surface design.
	• Have the students to practice creative surface design.
	• Have the students design a scarf using creative surface design techniques on AutoCAD®.
	Assessment:
	• Evaluate the visual display of research on surface design using the Presentation Assessment Rubric located in Appendix D.
	• Evaluate the designer scarf activity using the rubric located in Appendix D.
4. Demonstrate the use of companion software used in the design process. a. Explain the basic purpose of ApparelCAD® and Instant Designer® software. b. Identify the specific commands used in ApparelCAD® and Instant Designer. c. Using the companion software, create a fashion design.	**Teaching:** • Introduce, discuss, and demonstrate companion software that can be used with AutoCAD® to enhance the fashion design process and make it easier. Identify ApparelCAD® and Instant Designer® as software used by the fashion industry. Discuss how ApparelCAD® and Instant Designer® can be integrated and used together in the design process to combine and simplify design, illustration, pattern making, grading, and marker making. • Discuss and demonstrate the specific commands of ApparelCAD® and Instant Designer® used in the design process. Using Instant Designer®, demonstrate creating a basic design. • Have students practice using

	ApparelCAD® and Instant Designer®. • Have students create a design (pajama bottoms) using Instant Designer. Have the students provide an illustration of just the pajamas and then the pajamas on a croquis figure. **Assessment:** • Evaluate the design (pajama bottoms) using the Fashion Design on Croquis Assessment Rubric located in Appendix D.

5. Demonstrate patternmaking.
   a. Identify and describe technology used in patternmaking.
   b. Differentiate between printing and plotting a pattern.
   c. Plot and print patterns.
	Teaching:
	• Discuss how technology can be used to make patterns.
	• Define and differentiate between printing and plotting a pattern. Provide examples of each.
	• Have students create a pattern from a design made earlier in class.
	Assessment:
	• Evaluate the pattern for accuracy.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

    11.2   Evaluate housing decisions in relation to available resources and options.
    11.3   Evaluate the use of housing and interior furnishing and products in meeting specific design needs.
    11.4   Demonstrate computer-aided drafting design, blueprint reading, and space planning skills required for the housing, interiors, and furnishings industry.
    11.5   Analyze influences on architectural and furniture design and development.
    11.6   Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
    11.7   Demonstrate design ideas through visual presentation.
    11.8   Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

    13.3   Demonstrate communication skills that contribute to positive relationships.

    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.

    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.

    16.2   Evaluate fiber and textiles materials.

    16.3   Demonstrate apparel and textiles design skills.

    16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.

    16.5   Evaluate elements of textiles and apparel merchandising.

    16.6   Evaluate the components of customer service.

    16.7   Demonstrate general operational procedures required for business profitability and career success.

Academic Standards

A1   Recognize, classify, and use real numbers and their properties.

A2   Recognize, create, extend, and apply patterns, relations, and functions and their applications.

A3   Simplify algebraic expressions, solve and graph equations, inequalities and systems in one and two variables.

A5   Utilize various formulas in problem-solving situations.

A6   Communicate using the language of algebra.

A7   Interpret and apply slope as a rate of change.

E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

H1   Explain how geography, economics, and politics have influenced the historical development of the United States in the global community.

H2   Describe the impact of science and technology on the historical development of the United States in the global community.

H4   Demonstrate the ability to use social studies tools (e.g., timelines, maps, globes, resources, graphs, a compass, technology, etc.).

21st Century Skills

CS1   Global Awareness
CS2   Financial, Economic, and Business Literacy
CS3   Civic Literacy
CS4   Information and Communication Skills
CS5   Thinking and Problem-Solving Skills
CS6   Interpersonal and Self-Directional Skills

SUGGESTED REFERENCES

Kallameja, J., & Wilson, J. (2004). *AUTOCAD 2004.* Clifton Park, NY: Glencoe McGraw-Hill.

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Design Technology for Fashion and Interiors II
Unit 8: Construction of Basic Designs (35 hours)

Competencies and Suggested Objectives	Suggested Strategies for Competencies
1. Construct a design.	**Teaching:** • Have students complete a project from design to construction using technology and the correct sewing techniques. **Assessment:** • Evaluate the fashion project for accuracy in all techniques.

STANDARDS

National Standards for Family and Consumer Sciences

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.
    1.2   Demonstrate transferable and employability skills in community and workplace settings.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.
    11.4   Demonstrate computer-aided drafting design, blueprint reading, and space planning skills required for the housing, interiors, and furnishings industry.
    11.6   Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.
    11.7   Demonstrate design ideas through visual presentation.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.
    13.3   Demonstrate communication skills that contribute to positive relationships.
    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.
    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.
    16.2   Evaluate fiber and textiles materials.
    16.3   Demonstrate apparel and textiles design skills.
    16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.
    16.5   Evaluate elements of textiles and apparel merchandising.
    16.6   Evaluate the components of customer service.

16.7 Demonstrate general operational procedures required for business profitability and career success.

Academic Standards

A1 Recognize, classify, and use real numbers and their properties.
A2 Recognize, create, extend, and apply patterns, relations, and functions and their applications.
A3 Simplify algebraic expressions, solve and graph equations, inequalities and systems in one and two variables.
A5 Utilize various formulas in problem-solving situations.
A6 Communicate using the language of algebra.
A7 Interpret and apply slope as a rate of change.
A8 Analyze data and apply concepts of probability.
E1 Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.
E2 Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.
E3 Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.
E4 Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.
E7 Discover the power and effect of language by reading and listening to selections from various literary genres.
E8 Read, discuss, analyze, and evaluate literature from various genres and other written material.
E9 Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.
E10 Use language and critical thinking strategies to serve as tools for learning.
H4 Demonstrate the ability to use social studies tools (e.g., timelines, maps, globes, resources, graphs, a compass, technology, etc.).

21st Century Skills

CS1 Global Awareness
CS2 Financial, Economic, and Business Literacy
CS3 Civic Literacy
CS4 Information and Communication Skills
CS5 Thinking and Problem-Solving Skills
CS6 Interpersonal and Self-Directional Skills

Secondary Design Technology for Fashion and Interiors

SUGGESTED REFERENCES

American Fiber Manufacturers Association. (2005). *Fiberworld classroom*. Retrieved June 13, 2005, from http://www.fiberworld.com

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Recommended Tools and Equipment

CAPITALIZED ITEMS

1. Bookshelves (2 large sets)
2. Chairs (6)
3. Cutting tables (3)
4. Data video projector (1)
5. Display case (1)
6. Mannequin (1)
7. Mirror, three-way (1)
8. Plotter, networked (1)
9. Printers, networked (2)
10. Sewing machines, domestic, monogram, computerized, serger (combined 13 -14)
11. Sewing machines, industrial (1-2)
12. Student storage cabinet (for 15)
13. Student tables (3)
14. Student workstations (5)
15. Teacher desk w/docking station (1)

NON-CAPITALIZED ITEMS

1. Bulletin board (1-2)
2. Computer accessory kits (6)
3. Digital camcorder (1)
4. Dress forms (2-3)
5. Fire extinguisher (2)
6. Ironing board (2)
7. Iron, steam (2)
8. Mylar board (1)
9. Pull-down screen (1)
10. Racks for hanging clothes (1)
11. Seam roll (1)
12. Sleeve board (1)
13. Sleeve board (1)
14. Staple gun (1)
15. Steamer (1)
16. Surge protectors (1 for each computer)
17. Tailor's ham (1)
18. Telephone (1)
19. Tool box with hammer and assorted small tools (1)
20. Tripod (1)
21. Vacuum cleaner (1)
22. Washer/Dryer (1 each)

RECOMMENDED INSTRUCTIONAL AIDS

It is recommended that instructors have access to the following items:

1. Annual consumable supplies
2. Television
3. VCR

Student Competency Profile Design Technology for Fashion and Interiors I

Student: _____

This record is intended to serve as a method of noting student achievement of the competencies in each course. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the course.

In the blank before each competency, place the date on which the student mastered the competency.

Unit 1: Orientation

_____1.   Discuss local school policies, rules, and procedures.
_____2.   Describe the Design Technology for Fashion and Interiors program.
_____3.   Examine leadership opportunities in Design Technology for Fashion and Interiors.

Unit 2: Introduction to Technology for Design

_____1.   Identify computer technology used in Design Technology for Fashion and Interiors.
_____2.   Explain the use of computer-aided design in Design Technology for Fashion and Interiors.

Unit 3: The Design Profession

_____1.   Examine career opportunities in the field of design.
_____2.   Discuss employability skills.
_____3.   Discuss job-seeking skills.

Unit 4: The Fashion Design Industry

_____1.   Describe fashion and the fashion industry.
_____2.   Discuss today's fashion industry.

Unit 5: Principles and Elements of Design

_____1.   Discuss the elements of design.
_____2.   Discuss the principles of design.
_____3.   Discuss the impact of color in design.
_____4.   Illustrate color principles in design.
_____5.   Describe the design equation.

Unit 6: Textiles, Fibers, and Fabrics

_____1.   Discuss the origin and characteristics of fibers.
_____2.   Discuss methods of fabric construction.

_____3.   Discuss the importance of labels.

Unit 7: Fashion Design Fundamentals

_____1.   Discuss the proper selection of clothing.
_____2.   Identify the parts that make up a garment to include bodice, sleeves, collar, lapels, skirt, etc.
_____3.   Identify and describe garment styles.
_____4.   Discuss garment shapes.
_____5.   Create a fashion design.

Unit 8: Equipment for Construction

_____1.   Identify equipment used in construction.
_____2.   Demonstrate the safe and proper use of equipment.

Unit 9: Basic Construction Techniques

_____1.   Define terminology associated with basic construction techniques to include the following:
   - Grainlines: Lengthwise, crosswise, and bias
   - Selvage
   - Understitching
   - Seam allowance
   - Grading
   - Top stitch
   - Gathering stitch
   - Stay stitch
   - Darts
   - Basting
   - Backstitch
   - Slipstitch
_____2.   Interpret and select a pattern, fabric, and notions.
_____3.   Demonstrate pattern layout, cutting, and marking
_____4.   Practice basic construction techniques.

Unit 10: Fashion Merchandising

_____1.   Discuss activities involved in fashion merchandising.
_____2.   Demonstrate the use of retail mathematics.
_____3.   Discuss the role of merchandising in the design industry.

<div align="center">

Student Competency Profile
Design Technology for Fashion and Interiors II

</div>

Student: _____

This record is intended to serve as a method of noting student achievement of the competencies in each course. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the course.

In the blank before each competency, place the date on which the student mastered the competency.

Unit 1: Orientation

_____1. Review and discuss local school policies, rules, and procedures.
_____2. Review and examine leadership opportunities in Design Technology for Fashion and Interiors.

Unit 2: Introduction to Interior Environments

_____1. Identify and discuss the broad scope of interior design.
_____2. Discuss the history of interior design.

Unit 3: The Profession of Interior Design

_____1. Identify the steps to becoming an interior designer.
_____2. Identify and discuss emerging careers within the field of interior design.

Unit 4: Interior Design Fundamentals

_____1. Describe the elements of interior design.
_____2. Describe the principles of interior design.
_____3. Discuss the impact of color in interior design.

Unit 5: Lighting and Space Planning

_____1. Discuss lighting in interior design.
_____2. Describe space planning as related to interior design.

Unit 6: Furnishings, Fabrics, and Background Elements

_____1. Describe the use of furniture and accessories.
_____2. Discuss textiles as related to interior design.
_____3. Discuss flooring, ceilings, walls, doors, and windows, and window treatments as related to interior design.
_____4. Create an interior design.

Unit 7: Using Technology to Create Designs and Patterns

_____1.   Demonstrate the basic use of computers and software in the design process.
_____2.   Demonstrate the use of technology for illustration.
_____3.   Demonstrate the creation of surface designs.
_____4.   Demonstrate the use of companion software used in the design process.
_____5.   Demonstrate patternmaking.

Unit 8: Construction of Basic Designs

_____1.   Construct a design.

ASSESSMENT

BLUEPRINT

This program is assessed using the MS-CPAS. The following blueprint summary contains the competencies that are measured when assessing this program. Competencies are grouped into *clusters* and a weight is given to each cluster to determine the number of items needed from each cluster. The numbers of C1s and C2s (item difficulty levels) are also indicated on the blueprint.

Title of Program: Design Technology for Fashion and Interiors   Level: Secondary

Cluster/Competency	Level 1 (C1)	Level 2 (C2)	TOTAL	%
	Number	Number		
Cluster 1 : Fashion Year 1 – Unit 1 Orientation Unit 3 The Design Profession Unit 4 The Fashion Design Industry Unit 5 Principles & Elements Unit 6 Textiles, Fibers, and Fabrics Unit 7 Fashion Design Fundamentals Unit 10 Fashion Merchandising	25	4	29	29
Cluster 2 : Construction Year 1 – Unit 8 Equipment for Construction Unit 9 Basic Construction Tech Year 2 – Unit 8 Construction of Basic Designs	17	10	27	27
Cluster 3: Interior Design Year 2 – Unit 1 Orientation Unit 2 Intro to Interior Environments Unit 3 The Prof of Interior Design Unit 4 Interior Design Fundamentals Unit 5 Lighting & Space Planning Unit 6 Furn, Fab, & Bground Elements	20	5	25	25
Cluster 4 : Technology Year 1 – Unit 2 Tech for Design, Comp. #1-5 Year 2 – Unit 7 Using Tech to Create Designs and Patterns	13	6	19	19
Total Questions:	75	25	100	100

Appendix A: National Standards for Family and Consumer Sciences[1]

FCS 1. CAREER, COMMUNITY, AND FAMILY CONNECTIONS
Integrate multiple life roles and responsibilities in family, career, and community roles and responsibilities.

    1.1   Analyze strategies to manage multiple individual, family, career, and community roles and responsibilities.

    1.2   Demonstrate transferable and employability skills in community and workplace settings.

    1.3   Analyze the reciprocal impact of individual and family participation in community activities.

FCS 11. HOUSING, INTERIORS AND FURNISHINGS
Integrate knowledge, skills, and practices required for careers in housing, interiors, and furnishings.

    11.1   Analyze career paths within the housing, interiors, and furnishings industry.

    11.2   Evaluate housing decisions in relation to available resources and options.

    11.3   Evaluate the use of housing and interior furnishing and products in meeting specific design needs.

    11.4   Demonstrate computer-aided drafting design, blueprint reading, and space planning skills required for the housing, interiors, and furnishings industry.

    11.5   Analyze influences on architectural and furniture design and development.

    11.6   Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings.

    11.7   Demonstrate design ideas through visual presentation.

    11.8   Demonstrate general procedures for business profitability and career success.

FCS 13. INTERPERSONAL RELATIONSHIPS
Demonstrate respectful and caring relationships in the family, workplace, and community.

    13.1   Analyze functions and expectations of various types of relationships.

    13.2   Analyze personal needs and characteristics and their impact on interpersonal relationships.

    13.3   Demonstrate communication skills that contribute to positive relationships.

    13.4   Evaluate effective conflict prevention and management techniques.

    13.5   Demonstrate teamwork and leadership skills in the family, workplace, and community.

    13.6   Demonstrate standards that guide behavior in interpersonal relationships.

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[1] *National family and consumer sciences standards*. Retrieved February 15, 2005, from
    http://ideanet.doe.state.in.us/octe/facs/natlstandards.htm

FCS 16. TEXTILES AND APPAREL
Integrate knowledge, skills, and practices required for careers in textiles and apparel.

16.1   Analyze career paths within the textiles and apparel design industry.
16.2   Evaluate fiber and textiles materials.
16.3   Demonstrate apparel and textiles design skills.
16.4   Demonstrate skills needed to produce, alter, or repair textiles products and apparel.
16.5   Evaluate elements of textiles and apparel merchandising.
16.6   Evaluate the components of customer service.
16.7   Demonstrate general operational procedures required for business profitability and career success.

Appendix B: Academic Standards

Algebra I[2]

Competencies and Suggested Objective(s)

A1　Recognize, classify, and use real numbers and their properties.
- a.　Describe the real number system using a diagram to show the relationships of component sets of numbers that compose the set of real numbers.
- b.　Model properties and equivalence relationships of real numbers.
- c.　Demonstrate and apply properties of real numbers to algebraic expressions.
- d.　Perform basic operations on square roots excluding rationalizing denominators.

A2　Recognize, create, extend, and apply patterns, relations, and functions and their applications.
- a.　Analyze relationships between two variables, identify domain and range, and determine whether a relation is a function.
- b.　Explain and illustrate how change in one variable may result in a change in another variable.
- c.　Determine the rule that describes a pattern and determine the pattern given the rule.
- d.　Apply patterns to graphs and use appropriate technology.

A3　Simplify algebraic expressions, solve and graph equations, inequalities and systems in one and two variables.
- a.　Solve, check, and graph linear equations and inequalities in one variable, including rational coefficients.
- b.　Graph and check linear equations and inequalities in two variables.
- c.　Solve and graph absolute value equations and inequalities in one variable.
- d.　Use algebraic and graphical methods to solve systems of linear equations and inequalities.
- e.　Translate problem-solving situations into algebraic sentences and determine solutions.

A4　Explore and communicate the characteristics and operations of polynomials.
- a.　Classify polynomials and determine the degree.
- b.　Add, subtract, multiply, and divide polynomial expressions.
- c.　Factor polynomials using algebraic methods and geometric models.
- d.　Investigate and apply real-number solutions to quadratic equations algebraically and graphically.
- e.　Use convincing arguments to justify unfactorable polynomials.
- f.　Apply polynomial operations to problems involving perimeter and area.

A5　Utilize various formulas in problem-solving situations.
- a.　Evaluate and apply formulas (e.g., circumference, perimeter, area, volume, Pythagorean Theorem, interest, distance, rate, and time).
- b.　Reinforce formulas experimentally to verify solutions.

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[2] *Mississippi mathematics framework—Algebra I.* (2003). Retrieved September 10, 2003, from http://www.mde.k12.ms.us/curriculum/index_1.htm

c.   Given a literal equation, solve for any variable of degree one.
d.   Using the appropriate formula, determine the length, midpoint, and slope of a segment in a coordinate plane.
e.   Use formulas (e.g., point-slope and slope-intercept) to write equations of lines.

A6   Communicate using the language of algebra.
a.   Recognize and demonstrate the appropriate use of terms, symbols, and notations.
b.   Distinguish between linear and non-linear equations.
c.   Translate between verbal expressions and algebraic expressions.
d.   Apply the operations of addition, subtraction, and scalar multiplication to matrices.
e.   Use scientific notation to solve problems.
f.   Use appropriate algebraic language to justify solutions and processes used in solving problems.

A7   Interpret and apply slope as a rate of change.
a.   Define slope as a rate of change using algebraic and geometric representations.
b.   Interpret and apply slope as a rate of change in problem-solving situations.
c.   Use ratio and proportion to solve problems including direct variation ($y=kx$).
d.   Apply the concept of slope to parallel and perpendicular lines.

A8   Analyze data and apply concepts of probability.
a.   Collect, organize, graph, and interpret data sets, draw conclusions, and make predictions from the analysis of data.
b.   Define event and sample spaces and apply to simple probability problems.
c.   Use counting techniques, permutations, and combinations to solve probability problems.

Biology I[3]

Competencies and Suggested Objective(s)

B1   Utilize critical thinking and scientific problem solving in designing and performing biological research and experimentation.
a.   Demonstrate the proper use and care for scientific equipment used in biology.
b.   Observe and practice safe procedures in the classroom and laboratory.
c.   Apply the components of scientific processes and methods in the classroom and laboratory investigations.
d.   Communicate results of scientific investigations in oral, written, and graphic form.

B2   Investigate the biochemical basis of life.
a.   Identify the characteristics of living things.
b.   Describe and differentiate between covalent and ionic bonds using examples of each.
c.   Describe the unique bonding and characteristics of water that makes it an essential component of living systems.

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[3] *Mississippi science framework—Biology I.* (2003). Retrieved September 10, 2003, from http://www.mde.k12.ms.us/curriculum/index_1.htm

d. Classify solutions using the pH scale and relate the importance of pH to organism survival.

e. Compare the structure, properties and functions of carbohydrates, lipids, proteins and nucleic acids in living organisms.

f. Explain how enzymes work and identify factors that can affect enzyme action.

B3 Investigate cell structures, functions, and methods of reproduction.

a. Differentiate between prokaryotic and eukaryotic cells.

b. Distinguish between plant and animal (eukaryotic) cell structures.

c. Identify and describe the structure and basic functions of the major eukaryotic organelles.

d. Describe the way in which cells are organized in multicellular organisms.

e. Relate cell membrane structure to its function in passive and active transport.

f. Describe the main events in the cell cycle and cell mitosis including differences in plant and animal cell divisions.

g. Relate the importance of meiosis to sexual reproduction and the maintenance of chromosome number.

h. Identify and distinguish among forms of asexual and sexual reproduction.

B4 Investigate the transfer of energy from the sun to living systems.

a. Describe the structure of ATP and its importance in life processes.

b. Examine, compare, and contrast the basic processes of photosynthesis and cellular respiration.

c. Compare and contrast aerobic and anaerobic respiration.

B5 Investigate the principles, mechanisms, and methodology of classical and molecular genetics.

a. Compare and contrast the molecular structures of DNA and RNA as they relate to replication, transcription, and translation.

b. Identify and illustrate how changes in DNA cause mutations and evaluate the significance of these changes.

c. Analyze the applications of DNA technology (forensics, medicine, agriculture).

d. Discuss the significant contributions of well-known scientists to the historical progression of classical and molecular genetics.

e. Apply genetic principles to solve simple inheritance problems including monohybrid crosses, sex linkage, multiple alleles, incomplete dominance, and codominance.

f. Examine inheritance patterns using current technology (gel electrophoresis, pedigrees, karyotypes).

B6 Investigate concepts of natural selection as they relate to diversity of life.

a. Analyze how organisms are classified into a hierarchy of groups and subgroups based on similarities and differences.

b. Identify characteristics of kingdoms including monerans, protists, fungi, plants and animals.

c. Differentiate among major divisions of the plant and animal kingdoms (vascular/non-vascular; vertebrate/invertebrate).

d. Compare the structures and functions of viruses and bacteria relating their impact on other living organisms.

e.   Identify evidence of change in species using fossils, DNA sequences, anatomical and physiological similarities, and embryology.

f.   Analyze the results of natural selection in speciation, diversity, adaptation, behavior and extinction.

B7   Investigate the interdependence and interactions that occur within an ecosystem.

a.   Analyze the flow of energy and matter through various cycles including carbon, oxygen, nitrogen and water cycles.

b.   Interpret interactions among organisms in an ecosystem (producer/consumer/decomposer, predator/prey, symbiotic relationships and competitive relationships).

c.   Compare variations, tolerances, and adaptations of plants and animals in major biomes.

d.   Investigate and explain the transfer of energy in an ecosystem including food chains, food webs, and food pyramids.

e.   Examine long and short-term changes to the environment as a result of natural events and human actions.

English II[4]

Competencies and Suggested Objective(s)

E1   Produce writing which reflects increasing proficiency through planning, writing, revising, and editing and which is specific to audience and purpose.

a.   Produce individual and/or group compositions and/or projects to persuade, tell a story, describe, create an effect, explain or justify an action or event, inform, entertain, etc.

b.   Produce writing typically used in the workplace such as social, business, and technical correspondence; explanation of procedures; status reports; research findings; narratives for graphs; justification of decisions, actions, or expenses; etc.

c.   Write a response, reaction, interpretation, analysis, summary, etc., of literature, other reading matter, or orally presented material.

d.   Revise to ensure effective introductions, details, wording, topic sentences, and conclusions.

E2   Communicate ideas for a variety of school and other life situations through listening, speaking, and reading aloud.

a.   Listen to determine the main idea and supporting details, to distinguish fact from opinion, and to determine a speaker's purpose or bias.

b.   Speak with appropriate intonation, articulation, gestures, and facial expression.

c.   Speak effectively to explain and justify ideas to peers, to inform, to summarize, to persuade, to entertain, to describe, etc.

E3   Read, evaluate, and use print, non-print, and technological sources to research issues and problems, to present information, and to complete projects.

a.   Read, view, and listen to distinguish fact from opinions and to recognize persuasive and manipulative techniques.

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[4] *Mississippi language arts framework—English II*. (2003). Retrieved September 10, 2003, from http://www.mde.k12.ms.us/curriculum/index_1.htm

      b.   Access both print and non-print sources to produce an I-Search paper, research paper, or project.

      c.   Use computers and audio-visual technology to access and organize information for purposes such as resumes, career search projects, and analytical writings, etc.

      d.   Use reference sources, indices, electronic card catalog, and appropriate research procedures to gather and synthesize information.

E4   Work individually and as a member of a team to analyze and interpret information, to make decisions, to solve problems, and to reflect, using increasingly complex and abstract thinking.

      a.   Interact with peers to examine real world and literary issues and ideas.

      b.   Show growth in critical thinking, leadership skills, consensus building, and self-confidence by assuming a role in a group, negotiating compromise, and reflecting on individual or group work.

E5   Complete oral and written presentations which exhibit interaction and consensus within a group.

      a.   Share, critique, and evaluate works in progress and completed works through a process approach.

      b.   Communicate effectively in a group to present completed projects and/or compositions.

      c.   Edit oral and written presentations to reflect correct grammar, usage, and mechanics.

E6   Explore cultural contributions to the history of the English language and its literature.

      a.   Explore a variety of works from various historical periods, geographical locations, and cultures, recognizing their influence on language and literature.

      b.   Identify instances of dialectal differences which create stereotypes, perceptions, and identities.

      c.   Recognize root words, prefixes, suffixes, and cognates.

      d.   Relate how vocabulary and spelling have changed over time.

E7   Discover the power and effect of language by reading and listening to selections from various literary genres.

      a.   Listen to and read aloud selected works to recognize and respond to the rhythm and power of language to convey a message.

      b.   Read aloud with fluency and expression.

      c.   Analyze the stylistic devices, such as alliteration, assonance, word order, rhyme, onomatopoeia, etc., that make a passage achieve a certain effect.

      d.   Demonstrate how the use of language can confuse or inform, repel or persuade, or inspire or enrage.

      e.   Analyze how grammatical structure or style helps to create a certain effect.

E8   Read, discuss, analyze, and evaluate literature from various genres and other written material.

      a.   Read and explore increasingly complete works, both classic and contemporary, for oral discussion and written analysis.

      b.   Read, discuss, and interpret literature to make connections to life.

      c.   Read from a variety of genres to understand how the literary elements contribute to the overall quality of the work.

      d.   Identify qualities in increasingly complex literature that have produced a lasting impact on society.

      e.   Read for enjoyment, appreciation, and comprehension of plot, style, vocabulary, etc.

E9   Sustain progress toward fluent control of grammar, mechanics, and usage of standard English in the context of writing and speaking.

      a.   Infuse the study of grammar and vocabulary into written and oral communication.

      b.   Demonstrate, in the context of their own writing, proficient use of the conventions of standard English, including, but not limited to, the following: complete sentences, subject-verb agreement, plurals, spellings, homophones, possessives, verb forms, punctuation, capitalization, pronouns, pronoun-antecedent agreement, parallel structure, and dangling and misplaced modifiers.

      c.   Give oral presentations to reinforce the use of standard English.

      d.   Employ increasingly proficient editing skills to identify and solve problems in grammar, usage, and structure.

E10   Use language and critical thinking strategies to serve as tools for learning.

      a.   Use language to facilitate continuous learning, to record observations, to clarify thought, to synthesize information, and to analyze and evaluate language.

      b.   Interpret visual material orally and in writing.

U. S. History from 1877[5]

Competencies and Suggested Objective(s)

H1   Explain how geography, economics, and politics have influenced the historical development of the United States in the global community.

      a.   Apply economic concepts and reasoning when evaluating historical and contemporary social developments and issues (e.g., gold standard, free coinage of silver, tariff issue, laissez faire, deficit spending, etc.).

      b.   Explain the emergence of modern America from a domestic perspective (e.g., frontier experience, Industrial Revolution and organized labor, reform movements of Populism and Progressivism, Women's Movement, Civil Rights Movement, the New Deal, etc.).

      c.   Explain the changing role of the United States in world affairs since 1877 through wars, conflicts, and foreign policy (e.g., Spanish-American War, Korean conflict, containment policy, etc.).

      d.   Trace the expansion of the United States and its acquisition of territory from 1877 (e.g., expansionism and imperialism).

H2   Describe the impact of science and technology on the historical development of the United States in the global community.

      a.   Analyze the impact of inventions on the United States (e.g., telephone, light bulb, etc.).

      b.   Examine the continuing impact of the Industrial Revolution on the development of our nation (e.g., mass production, computer operations, etc.).

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[5] *Mississippi social studies framework—U.S. History from 1877.* (2003). Retrieved September 10, 2003, from http://www.mde.k12.ms.us/curriculum/index_1.htm

      c.   Describe the effects of transportation and communication advances since 1877.

H3   Describe the relationship of people, places, and environments through time.

      a.   Analyze human migration patterns since 1877 (e.g., rural to urban, the Great Migration, etc.).

      b.   Analyze how changing human, physical, geographic characteristics can alter a regional landscape (e.g., urbanization, Dust Bowl, etc.).

H4   Demonstrate the ability to use social studies tools (e.g., timelines, maps, globes, resources, graphs, a compass, technology, etc.).

      a.   Interpret special purpose maps, primary/secondary sources, and political cartoons.

      b.   Analyze technological information on graphs, charts, and timelines.

      c.   Locate areas of international conflict (e.g., Caribbean, Southeast Asia, Europe, etc.).

H5   Analyze the contributions of Americans to the ongoing democratic process to include civic responsibilities.

      a.   Examine various reform movements (e.g., Civil Rights, Women's Movement, etc.).

      b.   Examine the government's role in various movements (e.g., arbitration, 26th Amendment, etc.).

      c.   Examine the role of government in the preservation of citizens' rights (e.g., 19th Amendment, Civil Rights Act of 1964).

      d.   Examine individuals' duties and responsibilities in a democratic society (e.g., voting, volunteerism, etc.).

Appendix C: 21st Century Skills[6]

CS1   Global Awareness
- Using 21st century skills to understand and address global issues
- Learning from and working collaboratively with individuals representing diverse cultures, religions, and lifestyles in a spirit of mutual respect and open dialogue in personal, work, and community contexts
- Promoting the study of non-English language as a tool for understanding other nations and cultures

CS2   Financial, Economic, and Business Literacy
- Knowing how to make appropriate personal economic choices
- Understanding the role of the economy and the role of business in the economy
- Applying appropriate 21st century skills to function as a productive contributor within an organizational setting
- Integrating oneself within and adapting continually to our nation's evolving economic and business environment

CS3   Civic Literacy
- Being an informed citizen to participate effectively in government
- Exercising the rights and obligations of citizenship at local, state, national, and global levels
- Understanding the local and global implications of civic decisions
- Applying 21st century skills to make intelligent choices as a citizen

CS4   Information and Communication Skills
- Information and media literacy skills: Analyzing, accessing, managing, integrating, evaluating, and creating information in a variety of forms and media; understanding the role of media in society
- Communication skills: Understanding, managing, and creating effective oral, written, and multimedia communication in a variety of forms and contexts

CS5   Thinking and Problem-Solving Skills
- Critical thinking and systems thinking: Exercising sound reasoning in understanding and making complex choices, understanding the interconnections among systems
- Problem identification, formulation, and solution: Ability to frame, analyze, and solve problems
- Creativity and intellectual curiosity: Developing, implementing, and communicating new ideas to others, staying open and responsive to new and diverse perspectives

CS6   Interpersonal and Self-Directional Skills
- Interpersonal and collaborative skills: Demonstrating teamwork and leadership, adapting to varied roles and responsibilities, working productively with others, exercising empathy, respecting diverse perspectives
- Self-direction: Monitoring one's own understanding and learning needs, locating appropriate resources, transferring learning from one domain to another

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[6] *21st century skills.* (n.d.). Washington, DC: Partnership for 21st Century Skills.

- Accountability and adaptability: Exercising personal responsibility and flexibility in personal, workplace, and community contexts; setting and meeting high standards and goals for one's self and others; tolerating ambiguity
- Social responsibility: Acting responsibly with the interests of the larger community in mind; demonstrating ethical behavior in personal, workplace, and community contexts

Appendix D: Assessment Instruments

Poster Assessment Rubric

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
Required Content	The poster includes all required content elements as well as additional information.	All required content elements are included on the poster.	All but one of the required content elements is included on the poster.	Several required content elements were missing.	
Labels	All items of importance on the poster are clearly labeled with labels that are easy to read.	Almost all items of importance on the poster are clearly labeled with labels that are easy to read.	Many items of importance on the poster are clearly labeled with labels that are easy to read.	Labels are too small to read or no important items were labeled.	
Attractiveness	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed.	
Grammar	There are no grammatical or mechanical mistakes on the poster.	There are one-two grammatical or mechanical mistakes on the poster.	There are three-four grammatical or mechanical mistakes on the poster.	There are more than four grammatical or mechanical mistakes on the poster.	

Written Report Assessment Rubric

	Exemplary 4 points	Accomplished 3 points	Developing 2 points	Beginning 1 point	Score
Content	Clear thesis and focus that remain apparent	Thesis and focus that remain apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	

Presentation Assessment Rubric

	Exemplary 4 points	Accomplished 3 points	Developing 2 points	Beginning 1 point	Score
Content	Clear, appropriate, and correct	Mostly clear, appropriate, and correct	Somewhat confusing, incorrect, or flawed	Confusing, incorrect, or flawed	
Clarity	Logical, interesting sequence	Logical sequence	Unclear sequence	No sequence	
Presentation	Clear voice and precise pronunciation	Clear voice and mostly correct pronunciation	Low voice and incorrect pronunciation	Mumbling and incorrect pronunciation	
Visual Aids	Attractive, accurate, grammatically correct	Adequate, mostly accurate, few grammatical errors	Poorly planned, somewhat accurate, some grammatical errors	Weak, inaccurate, many grammatical errors	
Length	Appropriate length	Slightly too long or short	Moderately too long or short	Extremely too long or short	
Eye Contact	Maintains eye contact, seldom looking at notes	Maintains eye contact most of time but frequently returns to notes	Occasionally uses eye contact but reads most of information	No eye contact because reading information	

Role-Play or Skit Assessment Rubric

	Excellent 4 Points	Good 3 Points	Average 2 Points	Needs Improvement 1 Point	Total
Accuracy	All information was accurate	Almost all information was accurate	Most information was accurate	Very little information was accurate	
Role	Excellent character development; student contributed in a significant manner	Good character development; student contributed in a cooperative manner	Fair character development; student may have contributed	Little or no character development; student did not contribute much at all	
Knowledge Gained	Can clearly explain several ways in which his/her character "saw" things differently than other characters and can explain why	Can clearly explain several ways in which his/her character "saw" things differently than other characters	Can clearly explain one way in which his/her character "saw" things differently than other characters	Cannot explain any way in which his/her character "saw" things differently than other characters	
Props	Used several props and showed considerable creativity	Used 1 or 2 appropriate props that made the presentation better	Used 1 or 2 props that made the presentation better	Used no props to make the presentation better	
Required Elements	Included more information than required	Included all required information	Included most required information	Included less information than required	

Group Work Assessment Rubric

	Highly Successful	Meeting Success	Experiencing Difficulty	Score
	3 points	2 points	1 point	
Sharing	Shared ideas with others	Occasionally shared ideas with others	Seldom shared ideas with others	
Listening	Always listened to peers	Occasionally listened to peers	Ignored ideas of peers	
Respecting	Interacted with, encouraged, and supported ideas of others	Occasionally encouraged and supported others	Seldom encouraged and supported others	
Participating	Shared task equally with group members	Did most of the task	Did very little of the task	

Portfolio Assessment Rubric

	Excellent 5 Points	Good 4 Points	Need Some Improvement 3 Points	Need Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						

Interview Assessment Rubric

	Excellent 4 Points	Good 3 Points	Needs Improvement 2 Points	Unacceptable 1 Point	Total
Body language displays confidence					
Eye contact maintains good eye contact with interviewer					
Introduction provides a self-introduction					
Hand shakes extends hand and shakes firmly					
Dress appropriate for an interview, business attire					
Language concise and grammatically correct					
Questions asks appropriate questions, demonstrates a knowledge of the business					
Closure responds appropriately					

Group Participation Assessment Rubric

	Beginning	Developing	Accomplished	Exemplary	Score
	1 point	2 points	3 points	4 points	
Group Discussions	Rarely contributed to discussions of the group	Contributed good effort to discussions of the group	Contributed great effort to discussions of the group	Contributed exceptional effort to discussions of the group	
On-task Behavior	Exhibited on-task behavior inconsistently	Exhibited on-task behavior some of the time	Exhibited on-task behavior most of the time	Exhibited on-task behavior consistently	
Helping Others	Did not assist other group members	Seldom assisted other group members	Occasionally assisted other group members	Assisted other group members	
Listening	Ignored ideas of group members	Seldom listened to ideas of group members	Occasionally listened to ideas of group members	Always listened to ideas of group members	

Mood Board Assessment Rubric

Category	Possible Points	Points Earned	Comments
Category	**Possible Points**	**Points Earned**	**Comments**
Neatness	10 Points	_____	_____ _____
Creativity	10 Points	_____	_____ _____
Board Covered	10 Points	_____	_____ _____
Color Scheme is Consistent	10 Points	_____	_____ _____
Mood or theme is reflected in flat sketch	30 Points	_____	_____ _____
Mood or theme is easily seen	30 Points	_____	_____ _____
	100 Points	_____	_____ _____

Computerized Presentation Assessment Rubric

<u>Category</u>	**Possible Points**	**Points Earned**
<u>Accuracy</u>: Material presented is accurate	30	_____
<u>Visual Appeal</u>: Presentation is visually appealing and creatively designed	30	_____
<u>Clarity</u>: Easily read and understood	10	_____
<u>Grammar, Punctuation, & Wording</u>: Correct grammar, punctuation, and wording	10	_____

<u>Required Content</u>:
     Title slide
     Appropriate # of slides
     Summary slide
	
	5
	10
	5
		
		_____
		_____
		_____

	100	_____

Bulletin Board/Visual Display Assessment Rubric

Category	Possible Points	Points Earned
Title: Eye-catching, states a purpose, and conveys a message	10	_____
Appropriate Use of Space: Layout and design is creative and easily read	10	_____
Accuracy of Information: Major points are clearly defined	20	_____
Correct use of grammar and spelling	10	_____
Artistic Appeal: Border applied	10	_____
Attractive color scheme	20	_____
Neatly presented artwork, drawings, cut-outs, and lettering neatly presented	20	_____

| | **100** | _____ |

Basic AutoCAD® Checklist

Place a check beside each command that the student demonstrated.

_____1. Line Command _____2. Arc Command

_____3. Circle Command _____4. Rectangle Command

_____5. Zoom Command _____6. Real Time Command

_____7. Pan Command

Basic AutoCAD® Edit Checklist

_____1. Copy Command

_____2. Mirror Command

_____3. Move Command

_____4. Undo Command

_____5. Trim Command

_____6. Extend Command

Basic AutoCAD® Precision Drawing Checklist

_____1. End-point Command

_____2. Midpoint Command

_____3. Centerpoint Command

_____4. Node Command

_____5. Intersection Command

_____6. Tangent Command

Illustration for Snowman Assessment Rubric

Criteria	Possible Points	Points Earned
Lines are trimmed correctly	25	_____
Circles are graduated in size	25	_____
Circles are aligned properly	25	_____
Details are incorporated into the design. Details are eyes, nose, mouth, buttons, arms, and hands	25	_____
Total Points	100	100

Create a T-Shirt Assessment Rubric

Details	Possible Points	Short Sleeve	Possible Points	Long Sleeve		Points Earned
Lines are connected	10	_____	+ 10	_____	=	_____
Mirror image is exact	10	_____	+ 10	_____	=	_____
Sleeves are correct	10	_____	+ 10	_____	=	_____
Arc in neckline is correct	10	_____	+ 10	_____	=	_____
Arc in sleeve is correct	10	_____	+ 10	_____	=	_____
Total Points	50	_____	50	_____	=	_____

Designer Scarf Assessment Rubric

Criteria	Possible Points	Points Earned
Design is 48″ square	25	_____
Reflect the inspiration	25	_____
Have a central motif or border	25	_____
Color scheme based on inspiration or forecast	25	_____
Total Points	100	100

Fashion Design on Croquis Assessment Rubric

Details	Possible Points	Points Earned
Lines are trimmed	25	_____
Lines are deleted correctly	25	_____
Pants are positioned on croquis figure correctly	25	_____
Labeled correctly with the students name, project title, and date	25	_____

****

Total Points	100	_____

Student Notebook Rubric

CATEGORY	Excellent 4	Very Good 3	Satisfactory 2	Needs Work 1	SCORE
Content	Clear and complete description of the activity is recorded. All major points are documented.	Very good description of the activity is recorded. Most major points are documented.	Good description of the activity is recorded. Some major points have been omitted.	Limited description of the activity is recorded. Very few major points are documented.	
Insight and understanding	Definite insights into the implications of the activity are recorded. Awareness of complexity of issues and situations is present.	Some insight into the issue or situation is recorded. Some sense of complexity is present.	Insight is present from a more simplistic standpoint.	Only limited insight is recorded.	
Application	Content of the activity is connected to the student's goals.	Content of the activity is connected to the field of design.	Content of the activity is related to design in general.	Only limited connections are made between the content of the activity and design.	
Total Score:					