



MASSACHUSETTS
DEPARTMENT of
EDUCATION

Vocational Technical Education Framework

Business and Consumer Services Cluster

Fashion Technology

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Strand 1: Safety and Health Knowledge and Skills

1.A Define health and safety regulations.

- 1.A.01a Identify and apply OSHA and other health and safety regulations that apply to specific tasks and jobs in the occupational area.
- 1.A.02a Identify and apply EPA and other environmental protection regulations that apply to specific tasks and jobs in the occupational area.
- 1.A.03a Identify and apply Right-To-Know (Hazard Communication Policy) and other communicative regulations that apply to specific tasks and jobs in the occupational area.
- 1.A.04a Explain procedures for documenting and reporting hazards to appropriate authorities.
- 1.A.05a List penalties for non-compliance with appropriate health and safety regulations.
- 1.A.06a Identify contact information for appropriate health and safety agencies and resources.

Performance Example:

1. Create a presentation/demonstration that identifies proper safety and health issues and documents appropriate practices and procedures.

1.B Demonstrate health and safety practices

- 1.B.01a Identify, describe and demonstrate the effective use of Material Safety Data Sheets (MSDS)
- 1.B.02a Read chemical, product, and equipment labels to determine appropriate health and safety considerations
- 1.B.03a Identify, describe and demonstrate personal, shop and job site safety practices and procedures
- 1.B.04a Demonstrate safe dress and use of relevant safety gear and personal protective equipment (PPE), including wrist rests, adjustable workspaces and equipment, gloves, boots, earplugs, eye protection, and breathing apparatus
- 1.B.05a Illustrate appropriate safe body mechanics, including proper lifting techniques and ergonomics
- 1.B.06a Locate emergency equipment in your lab, shop, and classroom, including (where appropriate) eyewash stations, shower facilities, sinks, fire extinguishers, fire blankets, telephone, master power switches, and emergency exits
- 1.B.07a Demonstrate the safe use, storage, and maintenance of every piece of equipment in the lab, shop, and classroom
- 1.B.08a Describe safety practices and procedures to be followed when working with and around electricity
- 1.B.09a Properly handle, store, dispose of, and recycle hazardous, flammable, and combustible materials.
- 1.B.10a Demonstrate proper workspace cleaning procedures.
- 1.B.11c Explain carpal tunnel syndrome, or related repetitive strain injuries, and list exercises to reduce such injury.
- 1.B.12 Describe causes and remedies for eye strain.
- 1.B.13 Describe the relationship between productivity and health.

- 1.C Demonstrate responses to situations that threaten health and safety.**
- 1.C.01a Illustrate First Aid procedures for potential injuries and other health concerns in the occupational area.
 - 1.C.02a Describe the importance of emergency preparedness and an emergency action plan.
 - 1.C.03a Illustrate procedures used to handle emergency situations and accidents, including identification, reporting, response, evacuation plans, and follow-up procedures.
 - 1.C.04a Identify practices used to avoid accidents.
 - 1.C.05a Identify and describe fire protection, precautions and response procedures.
 - 1.C.06a Discuss the role of the individual and the company/organization in ensuring workplace safety.
 - 1.C.07a Discuss ways to identify and prevent workplace/school violence.

Strand 2: Technical Knowledge and Skills

2.A Demonstrate effective customer service skills.

- 2.A.01c Describe customer types and the importance of customer service.
- 2.A.02c Demonstrate ways to greet and assist a customer in appropriate ways.
- 2.A.03c Demonstrate ways to respond to customers and exceed their expectations.
- 2.A.04c Demonstrate ways to resolve customer service complaints in a professional and appropriate manner.
- 2.A.05c Identify the steps to manage dissatisfied customers.
- 2.A.06c Explain ways to reduce customer service stress to both workers and the consumer.

2.B Describe and demonstrate how to utilize telecommunication devices and activities.

- 2.B.01c Illustrate and apply e-commerce practices to a variety of situations.
- 2.B.02c Identify methods of transmitting information using telephone technology.
- 2.B.03c Demonstrate proper listening and speaking skills.
- 2.B.04c Record messages accurately and completely.

2.C Exhibit techniques to market products and services.

- 2.C.01c Demonstrate the selling process.
- 2.C.02c List methods and tools used to determine the customer's needs.
- 2.C.03c Prepare an advertising message incorporating multimedia, print and/or audio technologies.
- 2.C.04c Explain the qualities of good public relations.
- 2.C.05c Research and analyze market information.

2.D Describe and demonstrate management activities.

- 2.D.01c Explain the advantages and disadvantages of three major types of business ownership.
- 2.D.02c Explain the management functions of planning, organizing, staffing, leading, and controlling.
- 2.D.03c Describe Total Quality Management (TQM) concepts.
- 2.D.04c Develop a mission statement or company objective.
- 2.D.05c Develop a budget for a business/company.
- 2.D.06c Identify and budget for staffing requirements.

2.E Plan and participate in business meetings.

- 2.E.01c Identify the different types of business meetings.
- 2.E.02c Plan a business meeting.
- 2.E.03c Prepare documents related to business meetings.
- 2.E.04c Compare and contrast skills used to participate effectively in meetings and online meetings.

2.F Describe the functions of business finance.

- 2.F.01c List typical ways a business obtains capital.
- 2.F.02c Describe the importance of accounting in a business.
- 2.F.03c Describe key implications for a company which grants credit.
- 2.F.04c Describe how a company estimates and bids for a contract.
- 2.F.05c Describe how paycheck deductions affect a worker.
- 2.F.06c Describe the importance of cost containment in a company.
- 2.F.07c List advantages/disadvantages of hourly and salaried pay schemes.
- 2.F.08c Describe appropriate cash handling practices in a business.

2.G Demonstrate project management skills.

- 2.G.01c Define scope of work to achieve individual and group goals.
- 2.G.02c Identify stakeholders and decision makers.
- 2.G.03c Identify escalation procedures.
- 2.G.04c Develop work breakdown structures.
- 2.G.05c Evaluate project requirements.
- 2.G.06c Identify required resources and budget.
- 2.G.07c Estimate time requirements.
- 2.G.08c Develop initial project management flow chart.
- 2.G.09c Identify interdependencies within a project management plan.
- 2.G.10c Identify and track critical milestones.
- 2.G.11c Evaluate risks and prepare contingency plan.
- 2.G.12c Participate in project phase review and report project status.
- 2.G.13c Identify project management software.
- 2.G.14c Develop method of evaluation.
- 2.G.15c Formulate a task strategy.
- 2.G.16c Prioritize tasks according to customer needs.
- 2.G.17c Devise plan of action.

2.H Exhibit ethical conduct in business negotiations or operations.

- 2.H.01c Explain difference between ethical values, business practice, and legal responsibility.
- 2.H.02c Explain the distinctions between both personal and professional conduct.
- 2.H.03c Identify strategies for improving professional conduct in specific business situations.

2.I Demonstrate techniques of fashion illustration.

- 2.I.01 Demonstrate several figure drawing techniques (8 ½ heads, life, from clothing).
- 2.I.02 Complete a weekly sketchbook.
- 2.I.03 Demonstrate working drawings and flats.
- 2.I.04 Sketch a design using several types of media (pencil, watercolor, collage etc.).
- 2.I.05 Demonstrate illustration of fabric textures and prints.
- 2.I.06 Demonstrate sources of design inspiration.
- 2.I.07 Create a mood board.
- 2.I.08 Explain the concept of collections and related groups.
- 2.I.09 Create a series of roughs.

- 2.I.10 Demonstrate presentation techniques for portfolio drawings.
- 2.I.11 Improve roughs to portfolio quality.
- 2.I.12 Demonstrate the process of creating a fashion design using CAD.
- 2.I.13 Create a variety of fashion designs using CAD.

Performance Example:

1. Create a portfolio quality collection of fashion designs working from mood board and color scheme and roughs, to finalized drawings and flats.

2.J Describe the elements and principles of fashion design.

- 2.J.01 Identify the elements of design.
- 2.J.02 Demonstrate types of line and uses of line as a design element.
- 2.J.03 Demonstrate shapes and uses of shape as a design element.
- 2.J.04 Demonstrate space and use of space as a design element.
- 2.J.05 Demonstrate the use of texture as a design element.
- 2.J.06 Demonstrate the use of pattern as a design element.

Performance Examples:

1. Create a display board of clothing from fashion magazines. Analyze the design elements used in each design.
2. Create original fashion designs highlighting each principle of design. Write a description of each design defining the principle emphasized and how the principle is used in the design (i.e. This design emphasizes asymmetrical balance in the use of an asymmetrical neckline and a bow on the right side of the waist).

2.K Describe the use of color in design.

- 2.K.01 Identify colors on the color wheel.
- 2.K.02 Identify primary, secondary and intermediate colors.
- 2.K.03 Identify complementary colors.
- 2.K.04 Identify values: tints and shades.
- 2.K.05 Describe different intensities of color.
- 2.K.06 Identify color schemes: monochromatic, analogous, complementary, split, triadic and accented neutral.
- 2.K.07 Identify common industry color schemes (neutrals, pastels, brights, neons, vegetables) and their typical seasonalities.
- 2.K.08 Describe emotional effects of color.
- 2.K.09 Illustrate how clothing colors and skin tones interact.
- 2.K.10 Describe wardrobe building based on foundation colors.
- 2.K.11 Describe the use of color in creating a fashion collection and store delivery cycle.
- 2.K.12 Identify the role of color forecasting services.

Performance Examples:

1. Create color schemes in each of the groupings (see 06).
2. Select one of the color schemes to create a co-ordinate group of six mix and match pieces.
3. Write an explanation of how pieces can be used to create different outfits.

2.L Describe the types of design for consumers.

- 2.L.01 Create sketches of design for various customer types: children's, juniors, misses.

- 2.L.02 Create sketches of designs for a variety of activities: career, casual, active, special occasion, lingerie.
- 2.L.03 Create sketches of designs for accessories: jewelry, handbags, scarves etc.
- 2.L.04 Create sketches for designs of various home furnishings: quilts, curtains, pillows, upholstery.
- 2.L.05 Create a sketch of a physical layout and fixturing for a store.
- 2.L.06 Create a sketch of a design for a theatrical costume.

Performance Example:

1. Sketch roughs in each of the design categories. Select a design(s) to improve to portfolio quality rendering.

2.M Identify garment styles.

- 2.M.01 Identify basic body types - pants, skirts, blouses, sweaters, jackets, dresses, suits, coats.
- 2.M.02 Identify names of skirt types and lengths.
- 2.M.03 Identify names of pants types and lengths.
- 2.M.04 Identify dress styles.
- 2.M.05 Identify jacket and coat styles.
- 2.M.06 Identify common blouse styles.
- 2.M.07 Identify various sleeve styles.
- 2.M.08 Identify common collar and neckline styles.

Performance Example:

1. Pass a test where pictures of various styling details are presented for the student to identify.

2.N Define and describe fiber types and construction.

- 2.N.01 Classify natural and synthetic fibers.
- 2.N.02 Describe fiber characteristics (strength, durability, wrinkle resistance, shape retention).
- 2.N.03 Compare and contrast staple and filament fibers.
- 2.N.04 Identify and describe characteristics of common natural fibers.
- 2.N.05 Describe the process of manufacturing fiber.
- 2.N.06 Identify and describe characteristics of several manufactured fibers.
- 2.N.07 Describe use of burning and chemical tests to identify fiber content.
- 2.N.08 Explain textile legislation, standards, and labeling.

Performance Examples:

1. Identify samples of common fibers and describe their characteristics
2. Research the history of one manufactured fiber and present to the class.

2.O Analyze fabric construction.

- 2.O.01 Explain how yarns are formed.
- 2.O.02 Identify types of fabric construction (woven, knitted, non-woven).
- 2.O.03 Explain the weaving process.
- 2.O.04 Identify basic weaves.
- 2.O.05 Explain the knitting process.
- 2.O.06 Identify several basic types of knits.
- 2.O.07 Compare the characteristics of woven and knitted fabrics.
- 2.O.08 Identify warp yarns, filling yarns, selvage, and bias.

- 2.O.09 Describe other types of fabric construction such as non-woven, lace, bonded, and laminated.
- 2.O.10 Describe the evolution of knitting and weaving processes from hand methods through today's technology.
- 2.O.11 Describe uses of blended yarns.
- 2.O.12 Compare and contrast the effects of yarn and fabric characteristics on finished garments (construction, texture, hand, and pilling).
- 2.O.13 Explain thread count and its effect on fabric quality.

Performance Examples:

1. Make a booklet of fabric samples with written descriptions of the name of the fabric, construction process, and fabric qualities.
2. Create samples of a variety of weaves.
3. Hand knit a small sample of fabric.
4. Perform a thread count on sample fabric.

2.P Analyze fabric finishes.

- 2.P.01 Identify different categories of fabric finishes (dyeing, printing, texture, and performance finishes).
- 2.P.02 Describe the methods for dyeing fabrics (stock, solution, yarn, piece, and garment).
- 2.P.03 Summarize factors that affect colorfastness.
- 2.P.04 Describe the process of printing fabrics.
- 2.P.05 Identify common texture and performance finishes.
- 2.P.06 Compare benefits of a variety of fabric finishes.

Performance Examples:

1. Design a textile pattern and create a rendering.
2. Create a printed or dyed fabric.

2.Q Describe the history of fashion and the fashion industry.

- 2.Q.01 Visually identify clothing from each major historical time period: Greek/Roman, Medieval, Renaissance, 1600s, 1700s, and 1800s (including crinoline, bustle and turn of the century).
- 2.Q.02 Visually identify clothing from each decade of the 20th century.
- 2.Q.03 Identify names of clothing from each historical time period.
- 2.Q.04 Describe the evolution of fashion from early civilizations until today.
- 2.Q.05 Discuss factors that influence fashion: social customs, trade, wars, and exploration.
- 2.Q.06 Discuss the impact of the industrial revolution on clothing and the fashion cycle.
- 2.Q.07 Discuss the development of technology in the fiber industry and its impact on fashion.
- 2.Q.08 Identify historical influences on current fashion design.
- 2.Q.09 Describe the fashion cycle and the fashion forecasting process.
- 2.Q.10 Discuss the development of haute couture.
- 2.Q.11 Identify the clothing styles and customs of other cultures.

Performance Examples:

1. Write a research report on one time period.
2. Create a design of a style from that time period, and a modern style using the influences of that time period.

2.R Analyze the duties and impact of fashion designers.

- 2.R.01 Describe the role of fashion designers in the fashion industry.
- 2.R.02 Compare various types of design: high fashion, apparel industry, store product development.
- 2.R.03 Identify various types of designers: women's wear, lingerie, bridal, accessories, home furnishings, etc.
- 2.R.04 Explain the evolution of a design from sketch to pattern, sample garment, revisions, and final product.
- 2.R.05 Describe licensing and identify current licensed products.
- 2.R.06 Identify the names and achievements of important fashion designers.

Performance Examples:

1. Write a research report on a fashion designer or the designers who influenced a particular decade.
2. Create a display board of their fashion designs and give an oral presentation to the class.

2.S Analyze the fundamentals of the textile and apparel industry.

- 2.S.01 Describe the history of the garment industry including role of garment industry in Massachusetts history.
- 2.S.02 Describe role of fiber companies in the textile industry.
- 2.S.03 Describe the role of textile companies and textile converters.
- 2.S.04 Describe the process of apparel manufacturing.
- 2.S.05 Compare home sewing and assembly line sewing.
- 2.S.06 Describe the history of unionization and health and safety issues in the garment industry.
- 2.S.07 Explain current issues in the garment industry such as offshore production, labor laws, etc.
- 2.S.08 Describe the process of selling a line to retail stores.
- 2.S.09 Identify Centers of the Fashion Industry: NY market, California market, Milan, and Paris; and market week.
- 2.S.10 Identify wide variety of job categories in apparel and textile manufacturing.
- 2.S.11 Identify important trade and fashion publications.
- 2.S.12 Discuss various ways in which current style and trend information is communicated within the industry and to the consumer.

Performance Examples:

1. Create a flow chart outlining the stages of a garment production from fiber to finished product.
2. Plan the steps needed for assembly line sewing of a particular product.
3. Present an oral report to the class on a current issue in the industry.

2.T Apply the fundamentals of fashion merchandising and marketing.

- 2.T.01 Identify different types of retail establishments.
- 2.T.02 Identify wide variety of job categories in Retail stores: Buying, Planning, Store Operations, etc.
- 2.T.03 List sales and profitability factors.
- 2.T.04 Categorize current prominent retail stores and their target customer.
- 2.T.05 Discuss the concept of consumer groups and demographics
- 2.T.06 Outline the components and development of brand identity.
- 2.T.07 Discuss SKU information and its uses.

- 2.T.08 Identify advertising and signage techniques.
- 2.T.09 Create an advertisement to sell a product to a specific target customer.
- 2.T.10 Identify shipping, receiving, and inventory procedures.
- 2.T.11 Discuss store loss prevention techniques.
- 2.T.12 Calculate markup and markdown percent and merchandise discounts.
- 2.T.13 Explain the fashion cycle and identify the cycle of a current item.
- 2.T.14 Identify fads, trends, and basics.
- 2.T.15 Identify key factors in store visuals such as maintain brand identity, highlight product based on season and profitability, create excitement and impact.
- 2.T.16 Describe the function of a store designer.

Performance Example:

1. Create a store design and a visual display.
2. Pass a test on markup, markdown, sales and profitability.
3. Design a business or product and develop a name, logo, floor plan, advertisement, product mix and target customer.
4. Play a retail simulation game illustrating sales, profit, etc. (DECA).

2.U Demonstrate advanced garment care.

- 2.U.01 Identify laundry products and describe their uses.
- 2.U.02 Identify information required on fabric care labels.
- 2.U.03 Identify fabrics which are machine washable and those that always require dry cleaning.
- 2.U.04 Describe the appropriate method for laundering clothes: sorting, pre-treating, and folding.
- 2.U.05 Demonstrate ability to use a washer and a dryer.
- 2.U.06 Demonstrate appropriate folding and hanging of basic types of garments.
- 2.U.07 Identify different types of stains and stain removal processes.
- 2.U.08 Demonstrate correct usage of ironing equipment and pressing tools.
- 2.U.09 Compare clothing storage methods.
- 2.U.10 Discuss fabric preservation techniques, long-term storage, and sources of fiber damage.

Performance Example:

1. Demonstrate proper ironing technique for a variety of items.
2. Match a list of stains with the appropriate removal method.
3. Demonstrate retail folding and hanging methods.
4. Prepare a product for long-term storage.

2.V Making simple alterations/repairs.

- 2.V.01 Shorten a pant and a skirt.
- 2.V.02 Take in or let out a garment.
- 2.V.03 Demonstrate ability to perform simple garment repairs: buttons, rips, and patches.
- 2.V.04 Create a new item by redesigning or recycling an existing garment.

Performance Example:

1. Shorten a skirt.
2. Alter the length of a pattern.

3. Analyze a measurement sheet and combine two sizes on a multisize pattern to achieve better fit.
4. Select a piece of clothing to update or create a new use for such as change buttons, update trim, make a costume from an existing garment, alter with dye or fabric paints, make old jeans into accessories.

2.W Operate a variety of equipment used in garment construction.

- 2.W.01 Identify names and uses of hand tools for cutting, marking, measuring, etc.
- 2.W.02 Identify names and uses of a variety of notions.
- 2.W.03 Identify different types of threads and their uses.
- 2.W.04 Identify different types of needles and the correct placement in the machine.
- 2.W.05 Identify the parts of the sewing machine.
- 2.W.06 Identify the parts of a serger.
- 2.W.07 Demonstrate bobbin winding and threading the machine.
- 2.W.08 Adjust tension, stitch length, and stitch type.
- 2.W.09 Identify the causes of common stitching problems and their solutions.
- 2.W.10 Demonstrate sewing machine care.
- 2.W.11 Identify uses of common attachments (zipper foot, blind stitch, buttonhole foot).
- 2.W.12 Demonstrate correct threading, needle replacement, and routine care of a serger.
- 2.W.13 Demonstrate correct threading, adjustments parts, and routine care of industrial equipment where available. (Preferred equipment: industrial sewing machine, blind hemmer, industrial serger, and industrial iron).

2.X Demonstrate fabric/pattern layout and cutting.

- 2.X.01 Identify the location of common measurements and the correct procedure for taking measurements.
- 2.X.02 Complete a personal measurement sheet.
- 2.X.03 Describe the different size categories: Children's, Juniors, Misses, Women's, etc.
- 2.X.04 Compare measurements to a pattern and select appropriate size.
- 2.X.05 Perform simple alterations on an existing pattern.
- 2.X.06 Describe a correctly fitted garment and steps that can be taken to improve fit.
- 2.X.07 Identify information contained on pattern envelope and a pattern guide sheet.
- 2.X.08 Select appropriate fabric for a garment.
- 2.X.09 Calculate amount of fabric and notions required.
- 2.X.10 Locate fabric care information and preshrink where appropriate.
- 2.X.11 Check to see that fabric is on grain and check for fabric flaws.
- 2.X.12 Identify common pattern markings.
- 2.X.13 Identify selvage, grain line, and bias.
- 2.X.14 Follow pattern layout, cut and mark fabric.
- 2.X.15 Demonstrate adjustments to layout for fabrics with nap, plaids, one-way pattern.
- 2.X.16 Identify major pattern companies.
- 2.X.17 Identify and cut interfacing.

2.Y Demonstrate proper garment construction.

- 2.Y.01 Sew accurate straight seam allowances: ¼", ½" and 5/8" .
- 2.Y.02 Sew accurate curved seams.
- 2.Y.03 Overlock straight and curved seams.
- 2.Y.04 Demonstrate a variety of stitches: basting, zigzag, stay stitching, topstitching, and understitching.
- 2.Y.05 Demonstrate hand stitching: basting, running, overcast, slipstitch, and buttonhole stitch.
- 2.Y.06 Demonstrate sewing darts (single and contour) and explain their function.
- 2.Y.07 Demonstrate gathering and gathering over a cord.
- 2.Y.08 Create a self-casing and an applied casing.
- 2.Y.09 Demonstrate ease stitching and explain its function.
- 2.Y.10 Demonstrate special seam treatments: trimming, clipping, and grading.
- 2.Y.11 Apply sewn in and iron on facings.
- 2.Y.12 Apply a variety of fasteners: Velcro, snaps, and hook and eye.
- 2.Y.13 Apply a variety of zippers: centered, fly, centered, invisible, exposed.
- 2.Y.14 Make a machine buttonhole and apply button.
- 2.Y.15 Use a variety of hemming techniques and describe circumstances for using: hand and machine stitched, blind hemmer, and rolled hem.
- 2.Y.16 Apply a waistband, elastic, and drawstrings.
- 2.Y.17 Apply belt loops.
- 2.Y.18 Perform a variety of sleeve applications: set in, raglan, kimono, and 2 pc.
- 2.Y.19 Install a variety of collars: one-piece collar, lapel collar, and shawl collar.
- 2.Y.20 Sew special seams: flat felled and French, piped or corded, and describe their uses.
- 2.Y.21 Demonstrate sewing pleats and tucks.
- 2.Y.22 Apply a lining to a garment and describe benefits.
- 2.Y.23 Apply a variety of cuffs (band and buttoned).
- 2.Y.24 Apply a variety of pockets.
- 2.Y.25 Make and apply bias binding.
- 2.Y.26 Apply a variety of bindings and trims.
- 2.Y.27 Compare and contrast level of workmanship needed for costume, ready to wear, home sewing, and tailoring.

Performance Example:

1. Complete a series of sewing projects demonstrating skills.

2.Z Draft/Drape Patterns.

- 2.Z.01 Identify basic tools used in drafting.
- 2.Z.02 Discuss flat pattern making methods vs. draping.
- 2.Z.03 Create a simple pattern, such as for a pillow or curtain.
- 2.Z.04 Indicate seam allowance, grain, and cutting directions on the pattern.
- 2.Z.05 Alter a basic flat pattern to make a chosen design: move a dart, change a sleeve using the slash method, and create a princess line.
- 2.Z.06 Draft a simple garment.
- 2.Z.07 Create a simple garment by draping.

- 2.Z.08 Create a pattern using CAD software program.
- 2.Z.09 Test a flat pattern design using muslin.

Performance Example:

1. Draft a simple pattern and make garment.

2.AA Demonstrate use of fashion technology skills to create a variety of items commonly sold by small businesses in the fashion trades.

- 2.AA.01 Create a home decorating item (pillow, curtains, tablecloth, napkin).
- 2.AA.02 Create a craft item (dolls, stuffed animals, ornaments).
- 2.AA.03 Create a quilt, appliqué, or wall hanging.
- 2.AA.04 Create a costume for a play, Renaissance Faire, or Halloween.
- 2.AA.05 Create an accessory item (scarves, hair goods, handbags).
- 2.AA.06 Create custom embroidery by hand or by machine.
- 2.AA.07 Add value to an existing item by using fabric paint, dyes, appliqués, embroideries, and patches.

Performance Example:

1. Create a variety of items for self, or for use as a marketable item in an entrepreneurship unit.
2. Generate ideas in each category and complete a finished sample of each.

Strand 3: Embedded Academic Knowledge and Skills

3.A English Language Arts

VTE #	Acad #	Standard	Grade	Topic
3.A.01c	19.21	Write reports based on research that include quotations, footnotes or endnotes, and a bibliography.	Pre-9th	Composition
3.A.02c	24.4	Apply steps for obtaining information from a variety of sources, organizing information, documenting sources, and presenting research in individual projects:	Pre-9th	Composition
3.A.03c	2.4	Integrate relevant information gathered from group discussions and interviews for reports.	Pre-9th	Language
3.A.04c	13.19	Identify and use knowledge of common graphic features (charts, maps, diagrams).	Pre-9th	Reading
3.A.05c	24.5	Formulate open-ended research questions and apply steps for obtaining and evaluating information from a variety of sources, organizing information, documenting sources in a consistent and standard format, and presenting research.	9-10	Composition
3.A.06c	20.5	Use different levels of formality, style, and tone when composing for different audiences.	9-10	Composition
3.A.07c	1.5	Identify and practice techniques such as setting time limits for speakers and deadlines for decision-making to improve productivity of group discussions.	9-10	Language
3.A.08c	2.5	Summarize in a coherent and organized way information and ideas learned from a focused discussion.	9-10	Language
3.A.09c	26.5	Analyze visual or aural techniques used in a media message for a particular audience and evaluate their effectiveness.	9-10	Media
3.A.10c	19.27	Write well-organized research papers that prove a thesis statement using logical organization, effective supporting evidence, and variety in sentence structure.	11-12	Composition
3.A.11c	22.10	Use all conventions of standard English when writing and editing.	11-12	Composition

VTE #	Acad #	Standard	Grade	Topic
3.A.12c	24.6	Formulate original, open-ended questions to explore a topic of interest, design and carry out research, and evaluate the quality of the research paper in terms of the adequacy of its questions, materials, approach, and documentation of sources.	11-12	Composition
3.A.13c	3.17	Deliver formal presentations for particular audiences using clear enunciation and appropriate organization, gestures, tone, and vocabulary.	11-12	Language
3.A.14c	4.27	Use general dictionaries, specialized dictionaries, thesauruses, histories of language, books of quotations, and other related references as needed.	11-12	Language
3.A.15c		Select and utilize a variety of reading strategies based on task at hand (skim reading, technical documentation, accounts, editing tasks, analysis and evaluation tasks)		Voc
3.A.16c		Write formal communication documents using correct format and language rules to convey a message, announcement or directive.		Voc
3.A.17c		Identify and use language features for data and document management. (i.e. file management, customer account management, etc).		Voc
3.A.18	13.18	Identify and use knowledge of common textual features (<i>paragraphs, topic sentences, concluding sentences, introduction, conclusion, footnotes, index, bibliography</i>).	Pre-9th	Composition
3.A.19	26.5	Analyze visual or aural techniques used in a media message for a particular audience and evaluate their effectiveness.	9-10	Media
3.A.20	26.6	Identify the aesthetic effects of a media presentation and identify and evaluate the techniques used to create them.	11-12	Media
3.A.21	27.8	Create coherent media productions that synthesize information from several sources.	11-12	Media
3.A.22		Identify and utilize vocabulary related to the fashion related documents, media productions and reports.		Voc

VTE #	Acad #	Standard	Grade	Topic
3.A.23		Use appropriate format and style in writing business documents: letters, reports, memos, advertisements, and e-mails.		Voc
3.A.24		Write technical documents (design directions and procedures) for customer and industry audiences.		Voc

3.B Mathematics

VTE #	Acad #	Standard	Grade	Topic
3.B.01c	8.M.2	Given the formulas, convert from one system of measurement to another. Use technology as appropriate.	Pre-9th	Measure
3.B.02c	8.N.1	Compare, order, estimate, and translate among integers, fractions and mixed numbers (i.e., rational numbers), decimals, and percents.	Pre-9th	Numbers
3.B.03c	10.D.1	Select, create, and interpret an appropriate graphical representation (e.g., scatterplot, table, stem-and-leaf plots, box-and-whisker plots, circle graph, line graph, and line plot) for a set of data and use appropriate statistics (e.g., mean, median, range, and mode) to communicate information about the data. Use these notions to compare different sets of data.	9-10	Data Analysis, Statistics and Probability
3.B.04c	10.P.8	Solve everyday problems that can be modeled using systems of linear equations or inequalities. Apply algebraic and graphical methods to the solution. Use technology when appropriate. Include mixture, rate, and work problems.	9-10	Patterns, relations, algebra
3.B.05	8.M.1	Select, convert (within the same system of measurement), and use appropriate units of measurement or scale.	Pre-9th	Measure
3.B.06	8.M.2	Given the formulas, convert from one system of measurement to another. Use technology as appropriate.	Pre-9th	Measure
3.B.07	10.G.7	Using rectangular coordinates, calculate midpoints of segments, slopes of lines and segments, and distances between two points, and apply the results to the solutions of problems.	9-10	Geometry
3.B.08	10.M.1	Calculate perimeter, circumference, and area of common geometric figures such as parallelograms, trapezoids, circles, and triangles.	9-10	Measure
3.B.09	12.G.4	Relate geometric and algebraic representations of lines, simple curves, and conic sections.	11-12	Geometry

3.C Science and Engineering/Technology

VTE #	Acad #	Standard	Grade	Topic
3.C.01	1.2	Demonstrate knowledge of pictorial and multi-view drawings (e.g., orthographic projection, isometric, oblique, perspective) using proper techniques.		Eng/Tech
3.C.02	1.3	Demonstrate the use of drafting techniques with paper and pencil or computer-aided design systems when available.		Eng/Tech
3.C.03	1.4	Apply scale and proportion to drawings, e.g., 1/4" = 1'0".		Eng/Tech
3.C.04	1.5	Interpret plans, diagrams, and working drawings in the construction of a prototype.		Eng/Tech

Strand 4: Employability Knowledge and Skills

4.A Develop employability skills to secure and keep employment in chosen field.

- 4.A.01a Evaluate industries, organizations, and careers based on multiple sources of research and information.
- 4.A.02a Assess interest areas to determine potential career pathways, including career ladders.
- 4.A.03a Develop a career plan with alternatives.
- 4.A.04a Complete job applications and related employment documents (e.g. W-4).
- 4.A.05a Create professional cover letters, resumes, and portfolios in a variety of formats (print and electronic).
- 4.A.06a Apply job search skills to seek, evaluate, apply for, and accept employment.
- 4.A.07a Demonstrate good interviewing skills.
- 4.A.08a Demonstrate employability skills needed to get and keep a job.
- 4.A.09a Assess alternative occupational choices (e.g. working conditions, benefits, and opportunities to change).

Performance Examples:

1. Research positions open within a variety of companies and compare/contrast their descriptions, duties, and expectations.
2. Prepare responses to standard interview questions.
3. Participate in a mock-interview with industry professionals.

4.B Communicate in multiple modes to address needs within the career and technical field.

- 4.B.01a Apply strategies to enhance effectiveness of all types of communications in the workplace.
- 4.B.02a Apply reading skills and strategies to work-related documents.
- 4.B.03a Locate information from books, journals, magazines, and the Internet.
- 4.B.04a Apply basic writing skills to work-related communication.
- 4.B.05a Write work-related materials.
- 4.B.06a Explain information presented graphically.
- 4.B.07a Use writing/publishing/presentation applications.
- 4.B.08a Apply basic skills for work-related oral communication.
- 4.B.09a Explain proper telephone etiquette and skills.
- 4.B.10a Lead formal and informal group discussions.
- 4.B.11a Demonstrate effective negotiation and conflict management.
- 4.B.12a Apply active listening skills to obtain and clarify information.
- 4.B.13a Communicate with others in a diverse workforce.

Performance Examples:

1. Review a professional journal; choose one article to summarize.
2. Call the publisher for free products in journal.
3. Develop an oral presentation regarding an article in a journal.
4. Summarize trends presented in a graph.

4.C Solve problems using critical thinking.

- 4.C.01a Demonstrate skills used to define and analyze a given problem.
- 4.C.02a Explain the importance and dynamics of individual and teamwork approaches of problem solving.
- 4.C.03a Describe methods of researching and validating reliable information relevant to the problem.
- 4.C.04a Explain strategies used to formulate ideas, proposals and solutions to problems.
- 4.C.05a Select potential solutions based on reasoned criteria.
- 4.C.06a Implement and evaluate solution(s).

4.D Demonstrate positive work behaviors.

- 4.D.01a Identify time management and task prioritization skills.
- 4.D.02a Explain the importance of following workplace etiquette/protocol.
- 4.D.03a Demonstrate willingness to learn and further develop skills.
- 4.D.04a Demonstrate self-management skills.
- 4.D.05a List causes of stress and effective stress management techniques.
- 4.D.06a Describe the importance of having a positive attitude and techniques that boost morale.
- 4.D.07a Show initiative by coming up with unique solutions and taking on extra responsibilities.
- 4.D.08a Explain the importance of setting goals and demonstrate the ability to set, reach, and evaluate goals.
- 4.D.09a Explain the importance of taking pride in work accomplished and extrinsic and intrinsic motivators that can be used to increase pride.
- 4.D.10a Value the importance of professionalism, including reliability, honesty, responsibility, and ethics.
- 4.D.11a Demonstrate a respect for diversity and its benefit to the workplace.

Strand 5: Management and Entrepreneurship Knowledge and Skills

5.A Analyze basic business practices required to start and run a company/organization.

- 5.A.01a Define entrepreneurship .
- 5.A.02a Describe the relationship between suppliers, producers, and consumers.
- 5.A.03a Compare and contrast types of businesses, including sole proprietorships, small businesses, companies, corporations, governmental agencies, and non-profit organizations.
- 5.A.04a Describe practices that ensure quality customer service.
- 5.A.05a Explain the value of competition in business/field.
- 5.A.06 Relate personal qualities to success as an entrepreneur.
- 5.A.07 Compare different business opportunities for self employment.
- 5.A.08 Describe major responsibilities of entrepreneurs.
- 5.A.09 Explain the importance of all parts of a business plan: Business description, marketing, management and Financial Planning.
- 5.A.10 Identify the types of businesses you might consider starting.
- 5.A.11 Interpret regulations that may affect the type of business you choose.
- 5.A.12 Explain how to conduct market research.
- 5.A.13 Explain how to establish production techniques.
- 5.A.14 Determine quality standards for your goods and services.
- 5.A.15 Demonstrate how to promote and sell your product.
- 5.A.16 Discuss factors to consider in choosing a location for a business.
- 5.A.17 Identify common causes of new business failure.

Performance Examples:

1. Prepare a business plan for a new company in your community.
2. Participate in a discussion with members of a local small-business incubator or chamber of commerce, identifying opportunities and summarizing best practices of new companies.
3. Create an equipment list, with costs, of equipment required for doing specific tasks.
4. Identify local zoning and environmental laws that apply to businesses in your industry.

5.B Manage all resources related to a business/organization.

- 5.B.01a Identify a company's/organization's chain of command and organizational structure.
- 5.B.02a Define and demonstrate leadership and teamwork skills.
- 5.B.03a Explain ways a company or organization can market itself, including choosing a name, designing logos and promotional materials, advertising, and the importance of word-of-mouth.
- 5.B.04a Identify methods to track inventory, productivity, income, expenses, and personnel .
- 5.B.05a Explain the importance of written operating procedures and policies.
- 5.B.06a Identify professional organizations and their benefits.
- 5.B.07a Explain methods to effectively run a meeting.

Performance Examples:

1. Create a plan to keep track of tools and supplies in your classroom/shop.
2. Work as a team to complete a project, including running and participating in problem-solving meetings.
3. Contact a relevant professional organization and request information about its benefits, membership requirements, and costs.
4. Clip print advertisements from local companies, identifying common themes and contrasting different styles.

5.C Describe methods for managing, organizing, retrieving and reporting financial data.

- 5.C.01a Explain the role of small businesses in the economy.
- 5.C.02a Extract and extrapolate data from financial documents, such as a pay-stub, budget, tax statement, and financial report.

Performance Examples:

1. Create and follow a budget for an in-class project.
2. Identify equipment in your shop/lab that are considered as capital.
3. From a pay-stub, determine gross salary, deductions, and net pay for a calendar year.
4. Create a rate card or other list of standardized costs for services provided, based on research of local rates and practices.

5.D Apply labor and civil rights law and guidelines to business practice and decisions.

- 5.D.01a List federal and state mandated employee rights.
- 5.D.02a Describe proper working conditions for your industry.
- 5.D.03a Explain the role of labor organizations.
- 5.D.04a Discuss the importance of diversity and list methods of encouraging diversity in the workplace.
- 5.D.05a Describe standard forms of employment contracts applicable to your industry.
- 5.D.06a State the current minimum wage, as well as wages for common jobs found within the field.
- 5.D.07a List opportunities for continual professional development.
- 5.D.08 Recognize organizational and legal consequences of aiding and participating in illegal or inappropriate behavior.
- 5.D.09 Describe typical employee rules and regulations.
- 5.D.10 Recognize necessary permits and licenses required within the occupational major.

Performance Examples:

1. Participate in and summarize a discussion with a member of a labor organization.
2. Participate in and summarize a discussion with a member of a civil rights organization.
3. While participating in a group project, write and follow job descriptions for each member of the team.
4. Evaluate a shop/lab in terms of safety, ergonomics, and workflow.

5.E Evaluate the effects of community relations on companies and the industry.

- 5.E.01a Describe the role that the industry/organization plays in different communities.
- 5.E.02a Describe the role that community interests play in a company's/organization's decision-making process.

Performance Example:

1. Participate in a service project or community-centered event.

5.F Apply legal requirements and ethical considerations to business practice and decisions.

- 5.F.01a Identify laws that regulate businesses/organizations in your field.
- 5.F.02a Define the requirements for and protections given by copyright and trademark law.
- 5.F.03a Define the impact of the Americans with Disabilities Act and other civil rights legislation on your business/organization, employees, and customers.
- 5.F.04a Define ethical business practices for your field.
- 5.F.05a Identify trade-specific practices that support clean energy technologies and encourage environmental sustainability.

Performance Examples:

1. Research the ethical guidelines set forth by a professional organization related to your industry and participate in a debate over how to apply these guidelines to a variety of situations.
2. Create a portfolio of a variety of completed contracts and their uses.
3. Participate in and summarize a discussion with a lawyer, consumer advocate, or other legal professional.
4. Create a quick reference outline listing legal topics and related resources.

Strand 6: Technological Knowledge and Skills

6.A Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.

- 6.A.01a Select and utilize the appropriate technology to solve a problem or complete a task.
- 6.A.02a Demonstrate file management skills (e.g., install new software, compress and expand files as needed, download files as appropriate).
- 6.A.03a Differentiate between different operating systems and demonstrate use of at least one to open and switch between programs and files.
- 6.A.04a Identify and demonstrate resolutions to simple hardware and software problems as they occur (e.g., frozen screen, disk error, printing problems).
- 6.A.05a Save, retrieve, load, format, and import data into, and export a variety of electronic documents (word processing, spreadsheet, database, AND desktop publishing).
- 6.A.06a Demonstrate the proper use of a variety of external peripherals and how they connect to a computer.
- 6.A.07a Illustrate methods of selecting and using search engines.
- 6.A.08a Send, receive, and manage electronic correspondence and files, in accordance with school policy.
- 6.A.09a Demonstrate proper use of electronic proofreading tools and explain reasons why these shouldn't be relied upon solely.

Performance Example:

1. In the development of work-based projects, students demonstrate computer skills inherent in the word processing techniques used, the organization of data, use of photographic representation, research projects, and other relevant project based activities.

6.B Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.

- 6.B.01a Identify ways in which technology is used in the workplace and in society.
- 6.B.02a Summarize the rights and responsibilities of the school's Acceptable Use Policy.
- 6.B.03a Explain laws restricting use of copyrighted materials on the Internet.
- 6.B.04a Discuss the concerns about electronic communications, privacy and security, including protection from spyware and viruses.

Performance Example:

1. Describe how computers are used to increase efficiency, accuracy, and professionalism in the industry.

6.C Demonstrate ability to use technology for research, problem solving, and communication.

- 6.C.01a Locate, evaluate, collect, and process information from a variety of electronic sources.
- 6.C.02a Demonstrate the use of telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

- 6.C.03a Demonstrate the use of appropriate electronic sources to conduct research (e.g., Web sites, online periodical databases, and online catalogs).
- 6.C.04a Demonstrate proper style (with correct citations) when integrating electronic research results into a research project.
- 6.C.05a Collect, organize, analyze, and graphically present data using the most appropriate tools.
- 6.C.06a Present information, ideas, and results of work using any of a variety of communications technologies (e.g., multimedia presentations, Web pages, videotapes, desktop-published documents).
- 6.C.07a Identify capabilities of technology resources and describe how they can be used for lifelong learning.
- 6.C.08a Demonstrate the proper use of electronic tools and office communications equipment (telephone, fax, copier, etc).

Performance Example:

1. Student is able to effectively use various technologies in the workplace.