



MASSACHUSETTS
DEPARTMENT of
EDUCATION

Vocational Technical Education Framework

Education Cluster

Early Education and Care

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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.
- 1.A.07c Identify and report potential hazards related to equipment and building codes.

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 Evaluate equipment and facility safety within the learning environment.
- 1.B.12c Demonstrate appropriate infection control procedures including hand washing.
- 1.B.13c Describe standard precautions for blood borne pathogens and the procedures for responding to and reporting exposure.

Performance Examples:

1. Know location of first aid supplies.
2. Verify written parental authorization before allowing individuals to pick up children.
3. Research safety resources that can help prevent injury or mitigate accidents.
4. Wash hands before and after helping children toilet, blow their noses, and before preparing food and eating.
5. Assist children in practicing hand-washing before eating, playing at water-table, and after playing with toys.
6. Utilize established procedures for cleaning and sanitizing play areas, eating areas, and materials daily.
7. Describe universal first-aid precautions.
8. Create a visual depicting how to control risk to individuals in a learning environment.
9. Describe and follow proper procedures for managing emergency situations.
10. Role-play steps a teacher will take in a case of suspected child abuse.
11. Complete an injury report.

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.
- 1.C.08c Explain procedures related to recognition of and response to controlled substance risks.
- 1.C.09c Identify the risks to psychological health in the learning setting. .
- 1.C.10 Describe appropriate safety practices to prevent injury to children.
- 1.C.11 Acquire and maintain first aid certification.
- 1.C.12 Acquire and maintain CPR certification.
- 1.C.13 Describe emergency situations that may require CPR, rescue breathing, or other emergency response practices and appropriate actions.

Performance Examples:

1. Keep both the indoor and outdoor play area free of debris and structural hazards.
2. Check daily that outdoor equipment, toys, and materials are safe and in good repair.
3. Use safe auto and bus travel procedures including appropriate car seats for children.
4. Create a hazard map of the learning environment.
5. Research current information about safety standards for toys and equipment.

6. Know location of current list of phone numbers for contacting families and emergency services.
7. Use diagrams, pictures and words to post safety instruction.
8. Practice emergency procedures with all children, including monthly fire drills.
9. Anticipate and plan to prevent potentially dangerous situations, such as leaving sleeping children unattended.
10. Demonstrate emergency response procedures such as responding to a choking victim (including the Heimlich Maneuver).
11. Write a newsletter to families describing emergency procedures.
12. Describe & follow proper procedures for managing emergency situations.
13. Solicit partnerships within community agencies.
14. Communicate the emergency plan to all teachers and parents.

1.D Demonstrate techniques related to safety and security.

- 1.D.01c Explain procedures to ensure safety and security, including supervision, pre-employment checks, and access to students and the learning environment.
- 1.D.02c Design a safe, healthy, and environmentally secure area for all.
- 1.D.03c Describe appropriate responses to student injuries.

Performance Examples:

1. Respond immediately and sympathetically to a child's injury or fear of injury and encourage the same response by the children.
2. Take safety precautions in a reassuring manner without overprotecting or making children fearful.
3. Supervise children's indoor and outdoor activities.
4. Respond quickly and calmly to prevent children from hurting themselves and each other.
5. Attend to each child's physical needs, such as toileting, eating, exercising, and napping.

Strand 2: Technical Knowledge and Skills

NOTE: The Massachusetts Department of Early Education and Care also sets guidelines and program standards, which can be found in the “Guidelines for Preschool Learning Experiences” (Green Book) and the “Early Childhood Program Standards For Three and Four Year Olds” (Blue Book). The website for the Department of Early Education and Care is <http://www.eec.state.ma.us/>.

2.A Create activities that promote self-concept and foster emotional development.

- 2.A.01c Demonstrate awareness of different cultural values and familial expectations concerning independence and expression of feelings.
- 2.A.02c Describe the effects of life experiences on children’s self-concept.
- 2.A.03c Give examples of effective ways to support children through periods of stress; separation, transition, and other crisis.
- 2.A.04c Appreciate children and express this appreciation to them directly.
- 2.A.05c Develop methods to help children recognize, label, and accept their feelings and express them appropriately.

Performance Examples:

1. Value each child as an individual with his or her own strengths, needs, and unique characteristics.
2. Talk with each child daily.
3. Address each child by name and encourage each child to call other children and adults by name.
4. Provide one-on-one attention to each child as often as possible.
5. Offer children choices in activities, materials, and foods when possible, and respecting their choices.
6. Express appreciation of each child's success. Express kindness and support when a child is having trouble, and help him/her learn from mistakes.
7. Model recognition and expression of feelings by naming them.
8. Create a variety of activities offering many opportunities for all children to experience success.
9. Create a bulletin board displaying children’s work / family experiences.
10. Invite families to share family traditions / rituals.
11. Develop a resource file.

2.B Apply standard healthcare precautions as they relate to education and youth/adolescents.

- 2.B.01c Observe environment for adequate ventilation and lighting, comfortable room temperatures, and good sanitation.
- 2.B.02c Describe established procedures for the care of sick children, such as isolating a child with a contagious illness from well children and dispensing medications.
- 2.B.03c Describe procedures for contacting families, medical providers, and administering medicine.
- 2.B.04c Identify methods to assist children to develop basic nutrition and health habits.
- 2.B.05c Discuss established procedures for maintaining health records and administering medications and first aid.

- 2.B.06c Describe atypical behaviors and physical symptoms of children that should be communicated to staff for possible reporting to families, including common childhood diseases and illnesses.
- 2.B.07c Describe the signs of health crisis and know how to respond appropriately.
- 2.B.08c Describe the symptoms of possible abuse and neglect.
- 2.B.09c Describe the current laws and policies concerning reporting suspected child abuse.
- 2.B.10c Determine safety precautions to follow while supervising use of equipment and materials.
- 2.B.11c Discuss the importance of frequent communication with families about children's health, nutrition, communicable diseases, medications and allergies.
- 2.B.12c Explain methods of educating students and parents of healthy practices and procedures, including immunizations and visits to healthcare professionals.
- 2.B.13c Describe special health concerns and make any appropriate modifications to activities, procedures, work, play, or environment.

Performance Examples:

1. Conduct activities in a positive, relaxed, and pleasant atmosphere to reduce tension and stress.
2. Determine nurturing and appropriate comforting measures to children based upon individual differences.
3. Establish a relaxed mealtime routine.
4. Document atypical behaviors and physical symptoms of children.
5. Value cooperation with families and health professionals to meet individual children's needs.
6. Research information about health resources, such as physicians or community clinics with family services.
7. Plan nutritional menus for snacks and meals.
8. Research a communicable disease and describe the process for notifying families.

2.C Design and maintain a positive learning environment.

- 2.C.01c Create and implement opportunities for active and quiet play.
- 2.C.02c Prepare for and monitor spontaneous, child initiated activities.
- 2.C.03c Monitor individual small and large group activities.
- 2.C.04c Design, implement, and evaluate activities that extend children's attention span.
- 2.C.05c Explain relationship between social, emotional, physical, and intellectual development.
- 2.C.06 Design space to provide opportunities for different types of play including solitary, parallel and cooperative play.

Performance Examples:

1. Select and use developmentally appropriate materials, books, and equipment.
2. Select and use materials that demonstrate acceptance of every child's gender, family, race, language and culture.
3. Play a variety of natural and pleasurable sounds, such as music, normal conversation, and outdoor sounds.

4. Support relationships between adults and children and among peers as an important aspect of the learning environment.
5. Create a daily schedule so that each child receives individual attention.
6. Adapt the daily schedule to meet the needs, interests and abilities of children rather than requiring them to fit the schedule.
7. Provide easily accessible learning materials, such as puzzles, books and stacking toys so that children can explore independently.
8. Organize space into identifiable areas with accessible learning materials to encourage independent play.
9. Create, write, and post clear and consistent routines for mealtimes, naps, transitions, and cleanup, and support children's learning through these routines.
10. Create opportunities for children to develop their senses and ability to focus.
11. Frequently evaluate individual children as well as the group, and modify the environment to meet changing abilities, needs and interests.
12. Flex the daily schedule to take advantage of unusual opportunities, such as going outside in the snow or watching workers on the street.
13. Prepare and maintain appropriate material and equipment storage.
14. Plan environmental aesthetics (color, sound, decorations), including the posting of student work.
15. Develop a daily schedule for a preschool program.
16. Brainstorm ways to extend children's involvement in an activity.

2.D Develop activities that foster optimal physical development.

- 2.D.01c Explain sensory development and list materials and activities that promote optimal sensory development.
- 2.D.02c Illustrate strategies that promote health and fitness.
- 2.D.03c Describe how physical development influences self-concept and social development.
- 2.D.04c Recognize and describe gross and fine motor milestones.
- 2.D.05c List materials and activities that encourage fine and gross motor skill development .
- 2.D.06c Encourage children who are reluctant because of fear, illness, disability, abuse, and limited experience to participate in physical activities.
- 2.D.07c Observe and describe children's physical development; recognize signs of possible physical disabilities and developmental lags.
- 2.D.08c Identify resources and cooperate with treatment plans, individual education plans and Section 504 accommodation plans.
- 2.D.09 Define basic life skills and list methods of developing such in young children.

Performance Examples:

1. Communicate to children and adults the importance of outdoor play and physical activity for healthy growth and development.
2. Plan for and support children's changing needs for exercise as well as active and quiet play, and rest.
3. Plan and participate daily in appropriate gross-motor activities, such as playing ball, running, and jumping.

4. Implement opportunities for children to develop their senses, i.e. noticing colors, smelling various scents, distinguishing sounds, feeling and touching various textured objects and foods.
5. Arrange and encourage physical activities according to how children's physical development affects their cognitive, social and emotional development.
6. Support the independence of children with disabilities including them in physical activities with other children and modify activities when necessary.
7. Research and implement a variety of activities from children's cultures, such as dances, music, finger play and games.
8. Observe and evaluate children's developmental progress and provide activities appropriate for each child.
9. Research a childhood physical disability and give an oral report to classmates.
10. Plan and implement a group activity using music and movement.

2.E Create activities that foster optimal cognitive development.

- 2.E.01c Explain the fundamentals of brain development and how children learn.
- 2.E.02c Recognize and understand cognitive development milestones.
- 2.E.03c Observe children during play to assess their cognitive development and readiness for new learning opportunities.
- 2.E.04c Strengthen children's curiosity, inventiveness, problem-solving abilities and communication skills with various activities.
- 2.E.05c Create activities that encourage the development of cognitive relationship skills, including temporal, spatial, classification, and the ability to recognize items in a series.
- 2.E.06c Create activities that develop literacy and numeracy.
- 2.E.07c Develop procedures and practices that help children discover ways to solve problems that arise in daily activities.
- 2.E.08c Describe differences in individual learning styles and find ways to work effectively with each child.
- 2.E.09c Create active learning exercises.
- 2.E.10c Identify special learning materials and equipment for children with disabilities.
- 2.E.11c Recognize learning problems and follow the program's referral policy.
- 2.E.12c Identify resources and cooperate with treatment plans, individual education plans, and Section 504 accommodation plans.
- 2.E.13 Describe the importance of independent play, but often join children's play activities as a partner and facilitator.

Performance Examples:

1. Reinforce and support children's repetitions of the familiar and introduce new experiences, activities, and materials when they are interested and ready.
2. Be aware of the task a child is attempting and provide appropriate support.
3. Provide children time and space for extended concentrated play and adjust routines and schedules for this purpose.
4. Provide opportunities for children to experiment with the relationships of cause and effect and means and ends.
5. Provide equipment and materials that children can explore and master independently.

6. Provide opportunities for different types of play including solitary, parallel and co-operative.
7. Use everyday activities and student-made materials to encourage children's intellectual development.
8. Create a game for children to develop a specific cognitive skill.
9. Role-play steps in conflict resolution.

2.F Create activities that help to foster social development.

- 2.F.01c Define stages of social, identity, and emotional development.
- 2.F.02c Name the stages of social play.
- 2.F.03c Determine realistic expectations for young children's social behavior based on their levels of development.
- 2.F.04c Explain how love, affection, identity, and acceptance affect emotional and social development.
- 2.F.05c List methods that help children deal with issues of stress, separation anxiety, inappropriate behavior, shyness, sexual identity, and friendship.
- 2.F.06c Create activities that develop a student's sense of self and independence.
- 2.F.07c Create activities that help children learn to respect the rights and possessions of others.
- 2.F.08c Explain ways to encourage children to express their feelings and assert their rights in socially acceptable ways.
- 2.F.09c Illustrate activities that encourage play and develop relationships among children across racial, language, ethnic, age, gender, and ability groupings.
- 2.F.10c Facilitate problem-solving with children.
- 2.F.11c Explain the role of the caregiver in identifying, developing, and dealing with a child's emotions.
- 2.F.12c List ways to encourage cultural development and understanding.
- 2.F.13c Support diversity in the curriculum and environment.
- 2.F.14 List and describe basic emotions and how they may be expressed in young children

Performance Examples:

1. Encourage children to join in cooperative play using cues.
2. Help children become aware of their feelings and those of others by encouraging them to discuss feelings with others.
3. Encourage children to ask for, accept, and give help to each other.
4. Accept every child's worthiness and develop verbal and non-verbal cues to demonstrate this acceptance.
5. Write an anecdotal record documenting children's social development.
6. Brainstorm techniques to reduce separation anxiety.

2.G Create activities that develop communication skills.

- 2.G.01c Develop and apply realistic expectations for each child's understanding and use of speech that are based on knowledge of language development.
- 2.G.02c Describe activities and materials that encourage children to develop literacy, listening, and comprehension skills.

- 2.G.03c Respect the language of English language learners, encourage them to communicate freely with their children in the language parents prefer.
- 2.G.04c List community resources available to non-English speaking children.
- 2.G.05c Describe types of non-speech related communication.
- 2.G.06c Recognize, understand and respect local speech patterns and idioms.
- 2.G.07c Demonstrate appropriate communication skills among a variety of ages and situations, including adult/child communication and storytelling.
- 2.G.08c Explain methods of assessing language skills.
- 2.G.09c Recognize and describe possible signs of hearing and speech delays and problems.
- 2.G.10c List strategies used to communicate positively with children with developmental delays or impairments.
- 2.G.11c Identify resources and cooperate with treatment plans, individual education plans and Section 504 accommodation plans.
- 2.G.12 Describe receptive and expressive language milestones and factors effecting mastery of these milestones.
- 2.G.13 List guidelines (including regulatory) for choosing appropriate literature to be used in the classroom.

Performance Examples:

1. Communicate frequently with children individually. Stimulate conversation among peers, as well as between children and adults in the room.
2. Help children to connect word meaning(s) with experiences and real objects.
3. Be a language role model for children using appropriate tones, clear speech, and responsive conversation.
4. Listen attentively to children. Attempt to understand what they want to communicate, and help them express it.
5. Use a variety of songs, stories, books, and games including those from children's cultures for language development.
6. Encourage children to share special relationships and experiences in their family life.
7. Write down impromptu stories from children and read back to child.
8. Conduct an interactive story time.

2.H Create activities that encourage natural creativity among students.

- 2.H.01c Describe the creative process and identify stages of creative development.
- 2.H.02c Describe the value and importance of play in child development and the need to provide children with opportunities for creative activities, such as storytelling and using art materials.
- 2.H.03c List materials needed to support creative exploration of art, music, movement, and other areas of creative expression.
- 2.H.04c Adapt creative activity for children with sensory integration difficulties.

Performance Examples:

1. Defend the idea that each child's creative expression is unique and that encouraging uniformity should be avoided.
2. Include a variety of music, art, literature, dance, role-playing, celebrations, and other activities from children's cultures in program activities.

3. Provide opportunities for children to demonstrate creativity using commonly found objects and materials.
4. Encourage children to try new and different activities.
5. Provide opportunities for sensory activities, such as water and sand play, finger painting, and drawing with markers.
6. Facilitate children's dramatic and role play.
7. Provide opportunities for different types of play including solitary parallel and cooperative.
8. Model and encourage children's creativity in language through gestures, rhymes, imaginative stories and nonsense words.
9. Provide a variety of materials such as blocks, paint, clay, and musical instruments that are developmentally appropriate and safe.
10. Support in-depth, repeated exploration with creative materials, including recyclables, whenever possible.
11. Collect commonly found materials and support children as they create their own "inventions".

2.1 Provide appropriate behavioral, personal, and social guidance to young children.

- 2.1.01c Identify community and professional resources for learners with a variety of needs and abilities.
- 2.1.02c Explain the concerns legal rights of students with special needs, including ADA and Section 504.
- 2.1.03c Modify student expectations and work in accordance with an IEP.
- 2.1.04c List ways to offer positive guidance for children.
- 2.1.05c Establish guidelines for children's behavior that are clear, reasonable, and consistent to encourage self-control.
- 2.1.06c Establish routines that are consistent and reliable, yet flexible to children's needs.
- 2.1.07c Explain methods of developing a trusting relationship with children as a foundation for positive guidance and self-discipline.
- 2.1.08c Describe the role of the teacher to help parents/guardians develop realistic expectations for children's behavior in ways that help avoid disciplinary problems.
- 2.1.09c Analyze the effects of environment on behavior.
- 2.1.10c Locate resources for families regarding child-rearing techniques.
- 2.1.11c Describe the appropriate application of program guidance methods and expectations.
- 2.1.12c Identify strategies to deal with difficult behaviors.

Performance Examples:

1. Adapt effective guidance practices to each child's personality and level of development.
2. Encourage and/or convey constructive criticism.
3. Alert children to changes in activities or routines well in advance and handle transitions from one activity to another.
4. Anticipate confrontations among children and defuse provocative behavior.
5. Address a problem behavior or situation rather than labeling the child.
6. Accept children's sad or angry feelings, provide acceptable outlets for children to express them, and teach feeling words.

7. Understand that serious behavioral problems may be related to developmental or emotional problems.
8. Be aware of each child's individual needs and use problem solving and guidance techniques appropriately.
9. Modify play when children become over stimulated.
10. Debate the pros and cons of a specific approach to discipline.
11. Use paired reading techniques to summarize a professional journal article.

2.J Determine effective methods to encourage family involvement in the learning process.

- 2.J.01c Describe the possible composition and diversity of a family.
- 2.J.02c Explain how educators can support parents/guardians in their role.
- 2.J.03c Create examples of a variety of effective teacher-parent communications, including phone calls, letters, e-mail, newsletters, and meetings.
- 2.J.04c Describe methods of resolving conflicts with parents.
- 2.J.05c Explain the importance of using strict confidentiality regarding children and families.
- 2.J.06c Discuss strategies used to build a relationship with children without competing with parents/guardians.
- 2.J.07c Value the need for parents to visit, participate in activities, and make suggestions for the daily program.
- 2.J.08 Develop practices that will assist children to transition from home to school, recognizing parents' possible concerns about the separation process.

Performance Examples:

1. Prepare materials designed to involve parents/guardians.
2. Provide child development resources to parents and guardians.
3. Provide opportunities for family members to share their skills and talents in the program.
4. Prepare materials and list activities that families can share with children at home.
5. Participate in a teacher-parent conference.
6. Create a lending library of parenting resources for families.
7. Organize a family event.
8. Respect and try to understand parents' views when they differ from the school/program's goals or policies.
9. Communicate children's achievements to staff.

2.K Assess the effectiveness of educational programs and procedures.

- 2.K.01c Plan a daily program with information from formal/informal assessments.
- 2.K.02c Describe the student referral process for special education services.
- 2.K.03c Explain procedures to help children make smooth transitions from one group to another.
- 2.K.04c Identify appropriate regulatory and licensing agencies and demonstrate comprehension of their rules/guidelines.
- 2.K.05c Discuss personnel management, including an employee handbook, duties, staff organization, and methods for questions or conflict resolution.
- 2.K.06 List characteristics of a quality educational setting, including staff attitudes, curriculum, parental involvement, and activities.

Performance Examples:

1. Maintain current records including mandated reports concerning the growth, health, behavior and progress of each child as well as the group.
2. Work as a team member with classroom staff as well as substitutes and volunteers.
3. Participate in a new caregivers' orientation to the routine, special needs, and abilities of each child.
4. Create a plan for dismissal / pick-up of children.
5. Use group processes with staff members to solve and follow up on concerns that affect the program.
6. Identify effects of high and low child: staff ratios.

2.L Describe methods of assessing students' achievement.

- 2.L.01c Identify pros and cons of different types of tests, portfolios, and activities.
- 2.L.02c Compare and contrast screening methods.
- 2.L.03c Evaluate methods used to assess learner progress.
- 2.L.04c Create appropriate learner assessments and observations.
- 2.L.05c Evaluate assessments for mastery and extrapolate data to evaluate the whole learner.
- 2.L.06c Determine appropriate methods of communicating assessment and observation results.

Performance Examples:

1. Observe and record behaviors of young children using various assessment techniques.
2. Know how to select work samples for children's portfolios.
3. Create a portfolio for a child that includes work samples across the curriculum.
4. Participate in a conference to report results.

2.M Model professionalism in all activities.

- 2.M.01c Describe the philosophy of developmentally appropriate practice.
- 2.M.02c Identify legal and ethical responsibilities related to educating and caring for children.
- 2.M.03c Develop effective classroom management techniques based upon current child development research.
- 2.M.04c Identify the components of an effective lesson plan.

Performance Examples:

1. Demonstrate a positive attitude when working with young children, families, peers and staff.
2. Continually evaluate your own performance and strive to grow professionally through ongoing reflective practices.
3. Identify personality characteristics of professional caregivers and educators.
4. Participate in peer evaluation and be able to accept comments and criticism from colleagues, supervisors and parents in a constructive manner.
5. Take advantage of opportunities for professional and personal development by attending meetings, training courses and conferences.
6. Advocate quality services and rights for children and families.
7. Reflect on the NAEYC code of ethics.

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	3.14	Give formal and informal talks to various audiences and for various purposes using appropriate level of formality and rhetorical devices.	9/10	Language
3.A.10c	3.15	Analyze effective speeches made for a variety of purposes and prepare and deliver a speech containing some of these features.	9/10	Language
3.A.11c	3.16	Create an appropriate scoring guide to prepare, improve, and assess presentations (lessons).	9/10	Language

3.A.12c	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.13c	9.6	Relate a literary work to primary source documents of its literary period or historical setting.	9/10	Reading
3.A.14c	10.5	Compare and contrast the presentation of a theme or topic across genres to explain how the selection of genre shapes the message.	9/10	Reading
3.A.15c	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.16c	22.1	Use all conventions of standard English when writing and editing.	11/12	Composition
3.A.17c	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.18c	2.6	Analyze differences in responses to focused group discussion in an organized and systematic way.	11/12	Language
3.A.19c	3.17	Deliver formal presentations (lessons) for particular audiences using clear enunciation and appropriate organization, gestures, tone, and vocabulary.	11/12	Language
3.A.20c	3.18	Create an appropriate scoring guide to evaluate final presentations (lessons).	11/12	Language
3.A.21c	4.27	Use general dictionaries, specialized dictionaries, thesauruses, histories of language, books of quotations, and other related references as needed.	11/12	Language

3.B Mathematics

VTE #	Acad #	Standard	Grade	Topic
3.B.01c	8.G.3	Demonstrate an understanding of the relationships of angles formed by intersecting lines, including parallel lines cut by a transversal.	Pre-9th	Geometry

3.B.02c	8.M.2	Given the formulas, convert from one system of measurement to another. Use technology as appropriate.	Pre-9th	Measurement
3.B.03c	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.04c	8.N.10	Estimate and compute with fractions (including simplification of fractions), integers, decimals, and percents (including those greater than 100 and less than 1).	Pre-9th	Numbers
3.B.05c	8.N.2	Define, compare, order, and apply frequently used irrational numbers, such as $\sqrt{2}$ and π .	Pre-9th	Numbers
3.B.06c	8.N.3	Use ratios and proportions in the solution of problems, in particular, problems involving unit rates, scale factors, and rate of change.	Pre-9th	Numbers
3.B.07c	10.P.7	Solve everyday problems that can be modeled using linear, reciprocal, quadratic, or exponential functions. Apply appropriate tabular, graphical, or symbolic methods to the solution. Include compound interest, and direct and inverse variation problems. Use technology when appropriate.	9/10	Patterns, relations, algebra

3.C Science and Engineering/Technology

VTE #	Acad #	Standard	Grade	Topic
3.C.01c	1	Differentiate between weight and mass, recognizing that weight is the amount of gravitational pull on an object.	Pre-9th	Physics/Chem (physical science)
3.C.02c	11	Explain and give examples of how the motion of an object can be described by its position, direction of motion, and speed.	Pre-9th	Physics/Chem (physical science)
3.C.03c	4.1	Explain how major organ systems in humans (e.g., kidney, muscle, lung) have functional units (e.g., nephron, sarcome, alveoli) with specific anatomy that perform the function of that organ system.		Biology
3.C.04c	4.2	Describe how the function of individual systems within humans are integrated to maintain a homeostatic balance in the body.		Biology

3.C.05c	1.4	Distinguish between chemical and physical changes.		Chemistry
3.C.06c		Use knowledge of the human cell and its functions to make decisions about personal health and safety in an educational/instructional model.		Voc
3.C.07c		Identify energy conservation issues and strategies for the classroom/work environment.		Voc
3.C.08c		Demonstrate the ability to instruct others in the scientific inquiry process for an early education classroom setting.		Voc
3.C.09c		Demonstrate the ability to instruct others in the engineering design process for an early education classroom setting.		Voc

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.

- 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.

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.

- 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.

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 plays in different communities.
- 5.E.02a Describe the role that community interests play in a company'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.