Education and Training

CAREER FIELD TECHNICAL CONTENT STANDARDS

2016

Ohio | Department of Education

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Foreword

The Career Field Technical Content Standards serve as the curricular framework for Ohio's career-technical education pathway programs as outlined in Ohio Administrative Code 3301-61-03 (Criteria for Secondary Workforce Development Programs).

Career Field Technical Content Standards outline the knowledge and skills needed for success in careers across multiple pathways. Validated by Ohio business and industry representatives, these standards form the basis for developing educational programming in Ohio secondary schools. The standards also serve as the framework for developing strong career pathways that connect secondary education with postsecondary education systems and the workplace.

This version of Career Field Technical Content Standards is intended to support the ongoing evolution of career technical education pathway programs. The standards tend to be somewhat broader than previous versions and are not repeated for individual pathways or occupational areas. The broader and non-duplicated statements are intended to capture the knowledge and skills that can be applied across any number of occupations in a pathway rather than focusing on the requirement of a single occupation. After all, the intent of a pathway program is to prepare a student for a range of educational and career opportunities following high school.

Pathway programs prepare students to combine broad knowledge, insight and understanding of business processes, academic attainment and workplace readiness with depth of knowledge and expertise in a technical area. Knowing that many careers will require some level of postsecondary education, the content standards also delineate the knowledge and skills necessary to seamlessly transition to postsecondary educational programs.

This document seeks to provide the basis for educational programming that will provide the employee with fundamental skill-sets that employers demand. This ensures that Ohio's workforce of tomorrow is competitive in a global environment. An environment that requires knowledge and skills can be applied in a broader context, aimed at innovation to support new products and services in an ever-changing economy.

In addition to the extensive engagement of secondary and postsecondary educators and business/industry professionals, development of these standards represents a collaborative effort of the following professional partners: the Ohio Department of Education's Office of Career-Technical Education; the Ohio Board of Regents Secondary Career-Technical Alignment Initiative; and MBA Research and Curriculum Center.

Linda O'Connor, Assistant Director
Office of Career-Technical Education
Ohio Department of Education

Acknowledgements

A number of individuals contributed their time and expertise to this development. Special thanks go to all the administrators and educators named in this document.

Further acknowledgement is due to:

Philosophy and Principles for Implementation

Ohio Career Field Initiative

The overarching framework for Ohio career-technical education is outlined in the Ohio Revised Code and subsequent administrative rules, which specify career-technical programming based on 16 career fields. These 16 fields provide the framework for an Ohio career field initiative that seeks to foster the educational shift necessary to respond to the needs of a rapidly changing global environment.

A career field is a "group of occupations and broad industries based on common characteristics" (see www.careertech.org). Career fields are the basis for developing both broad and specialized technical content standards that serve as a framework for curriculum, instruction, assessment and program design, addressing the needs of an entire industry and business sector. Ohio's 16 career fields align with national efforts to broaden career-technical education, integrate career-technical with academic study and reflect the workforce needs of today and tomorrow. For today's students to be adequately prepared for tomorrow's workforce, they must have an education that:

- **Incorporates a broad, long-term conception of work in combination with the depth of specialization skills;**
  Employees need a comprehensive understanding beyond a single occupational area. Career-technical programming needs to be provided in a larger context, so students can generalize learning, make connections between education and work and adapt to changes in their careers. Workplace knowledge and skills are needed to prepare employees for collaborating and problem solving while contributing to the broader business process.

- **Emphasizes the acquisition of strong academic knowledge and skills; and**
  Academic skills provide the foundation for career success. The integration of academic content standards with career field technical content standards helps to contextualize learning for students, making English language arts, mathematics, social studies and science relevant to students as a means to an important end—success at work and in life.

- **Facilitates high-school-to-postsecondary transitions.**
  A lifetime of change means a lifetime of learning, including postsecondary education. Students need knowledge and skills for success in a variety of postsecondary options, including apprenticeships, industry credentialing through adult education, two- and four-year college degree programs and graduate school.

Career Pathways

A key component of the Ohio Career Field Initiative is a career pathway, which is a coherent, articulated sequence of rigorous academic and career-technical coursework commencing in the ninth grade and leading to an associate degree, baccalaureate degree and beyond–an industry-recognized certificate and/or licensure. Pathways facilitate a seamless transition from high school to postsecondary education (including apprenticeships, adult education, two- and four-year colleges and graduate school) and from postsecondary education to the workplace. The career pathway is developed, implemented and maintained in partnership among secondary and postsecondary education, business and employers. Career pathways are available to all students, including adult learners and lead to rewarding careers.

To effectively facilitate the transition from secondary to postsecondary education and a career, high school career pathways should encompass:

1. Challenging technical coursework in a chosen career field based on career field technical content standards;
2. Rigorous academics that meet Ohio's academic content standards and grade-level expectations;
3. Electives that relate to career objectives;
4. Instructional enhancements such as experiential and authentic learning opportunities (e.g., work-based learning, mentorships, internships) and career-technical student organization participation;
5. Opportunities (when appropriate) for program and student certification and licensure;
6. Preparation for transition to further study that includes college readiness and opportunities to earn college credit while in high school;
7. Preparation for transition to employment with advancement opportunities;
8. Performance targets that include high school academic and technical testing/exit and postsecondary entry/placement requirements;
9. Various sector(s) within an industry or encompass a function that crosses industry sectors;
10. The scope of opportunities in the related industry and available college programs;
11. Opportunities to prepare for a range of careers, including
    a. multiple employment opportunities after high school and
    b. opportunities for students to enter and succeed in postsecondary and continuing education programs;
12. Transferable skills required for employment in the range of occupations aligned to the pathway; and
13. Opportunities to learn skills across the pathway as well as in specialized areas.

For additional information on the Career Field Initiative, including Ohio Career Field Technical Content Standards and Career Pathways, go to http://education.ohio.gov/Topics/Career-Tech/Career-Fields.

Structure and Format

The Career Field Technical Content Standards document is composed of a series of strands comprised of outcomes that each contains a set of competencies.

- A strand is a large content area under which multiple outcomes are organized, regardless of the pathway. It includes a title and a concise description with statements that capture multiple, broad areas of student knowledge and skills expected across all outcomes in the strand. There are approximately six strands of content per career field. Strand 1, Business Operations/21st Century Skills (employability skills, leadership and communications, business ethics and law, knowledge management and information technology, global environment, business literacy, entrepreneurship/entrepreneurs, operations management, financial management, sales and marketing and principles of business economics), is the same for all career-technical education career fields.
- An outcome is an overarching statement that summarizes the knowledge and skills described in a set of individual competencies to be learned by the end of the 12th grade. There are usually
  5–15 outcomes within a strand, depending on the breadth of content to be addressed.
- A competency is a specific statement of essential knowledge or skill to be learned in the pathway program. There are usually 5–12 competencies under an outcome.

Each set of outcomes and competencies is included in one or more pathways in the career field. Outcomes and competencies form the basis for developing secondary courses, programs, instruction and assessment, facilitating transition from one educational level to the next and to the workplace. This supports career readiness and long-term career success by:

- Providing the basis for effective collaboration, teamwork and communication across pathways;
- Laying the groundwork for successful transfer of knowledge and skills across pathways, thereby facilitating horizontal and vertical career success and
- Equipping students and workers with the skills needed to transition to new and emerging careers throughout a working lifetime.

All outcomes and competencies in the Career Field Technical Content Standards have been verified as essential by education practitioners within the pathway or pathways specified, or they were considered essential by postsecondary faculty and Ohio Department of Education staff.

These essential outcomes and competencies specify industry-based knowledge or hands-on skills that CTE students need by the end of the 12th grade to be successful in their selected career pathway and on-going learning (such as college, apprenticeships and military opportunities).

Development of the Education and Training Career Field Technical Content Standards

The process for the development of the Business and Administrative Services, Finance and Marketing Career Fields Technical Content Standards began in July 2015 and culminated in May, 2016. Over the course of 2015 and 2016, numerous education administrators and practitioners as well as secondary and postsecondary educators from across the state of Ohio took part in the formal development process. The following summarizes the various stages of the development process.

Research and Development

The involvement of subject matter experts was critical to the completion of the draft revision of the document. Development was also informed by consulting the following sources of information:

- Administration for Children and Families
- Advance CTE: State Leaders Connecting Learning to Work
- American Psychological Association
- American Association for Community Colleges
- American Society of Montessori Education
- American Society for Training and Development
- American Sociological Association
- Board of Cooperative Educational Services of New York State
- Bright Hub Education
- Bridging Refugee Youth and Children's Services (BRYCS)
- Career-Technical Transfer Assurance Guides (CTAGs)
- CareerOneStop
- Center for American Progress
- Center for Public Education
- Clayton Christensen Institute for Disruptive Innovation
- Columbus State, Early Childhood Development and Education Program
- Common Core State Standards Initiative
- Council for the Accreditation of Educator Preparation
- Council for Professional Recognition
- Council of Chief State School Officers
- Departments of Education at the following colleges and universities:
    - Appalachian State University
    - Cincinnati State Technical and Community College
    - Dyersburg State Community College

- o Ohio University
- o Stark State College
- o The University of Akron
- o The University of Texas at Austin
- o University of Cincinnati
- o [1]University of Massachusetts
- o University of Northern Iowa
- o University of Oklahoma
- o Western Michigan University
- o Walla Walla Community College
- District of Columbia Public Schools
- Educational Policy Improvement Center
- Edutopia
- Education Week
- Departments of Education, Office of Career-Technical Education in AL, AR, CA, CT, FL, GA, HI, IA, IN, NC, NV, OH, OR, TN, VA and WA
- International Society for Technology in Education
- Iowa State Education Association (ISEA)
- Langevin Learning Services
- National Board for Professional Teaching Standards
- National Association for the Education of Young Children (NAEYC)
- National Association of State Directors of Career Technical Education Consortium (NASDCTEc) Common Career Technical Core (CCTC) standards and Programs of Study
- National Association of Child Care Resource and Referral Agencies (NACRRA)
- National Board for Professional Teaching Standards (NACCRRA)
- National Commission on Teaching and America's Future (NCTAF)
- National Council on Teacher Quality (NCTQ)
- National Education Association
- National Institute for Early Education Research
- New York Works for Children
- Occupational Information Network (O*Net)
- Ohio Child Care Resource and Referral Association
- Ohio Department of Education
- Ohio Department of Higher Education
- Ohio Department of Job and Family Services, Bureau of Labor Market Information
- Ohio Network for Education Transformation
- Ontario Ministry of Education
- Scholastic
- Stanford Center for Opportunity Policy in Education
- Step Up To Quality, Ohio Department of Education and Ohio Department of Job and Family Services

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- The Center for Comprehensive School Reform and Improvement
- The Council for Corporate and School Partnerships
- The Knowledge Network for Innovations in Learning and Teaching (KNILT)
- The National Center on Cultural and Linguistic Responsiveness
- The National Center on Early Head Start
- The National Center on Quality Teaching and Learning
- United States Department of Education
- United States Department of Health and Human Services, Administration for Children and Families, Head Start Bureau
- United States Department of Labor, Bureau of Labor Statistics
- United Nations Educational, Scientific, and Cultural Organization
- University of California, Berkley
- University of Central Florida Center for Online Teaching
- University of Kansas, Community Tool Box, Work Group for Community Health and Development
- University of Pennsylvania
- University of Salford in Manchester
- University of Washington in Bothell, Department of Online Learning Technologies
- Work Group for Community Health and Development at the University of Kansas

Futuring Panels

On September 11, 2015, the Education and Training futuring panels brought together key leaders in Early Childhood Education and the Teaching Professions pathways from across the state to advise the Ohio Department of Education on trends impacting the Education and Training career fields. The participants were asked to share their perceptions on changes in education, employment trends, changes in skill requirements, needed education and training readiness skills and available industry-recognized standards and credentials. This feedback was used to develop and streamline the standards document into what is most demanded by educational institutions.

Validation Panels

On May 12, 2016, a diverse group of Ohio educators participated in panels to validate the importance of the work-related competencies in the draft standards document. Drawn from various regions of the state, the panels identified what educators should know and be able to do in the Early Childhood Education and Teaching Professions pathways

Postsecondary Alignment

The goal of the Secondary Career-Technical Alignment Initiative (SCTAI) was to develop new statewide Career-Technical Assurance Guides (CTAGs) for secondary career-technical institutions using the combined process of the Ohio Department of Higher Education's CTAG development process with the Ohio Department of Education's Career Field Technical Content Standards development process. The result of this collaboration was a tighter alignment between secondary career-technical and postsecondary content and the development of pathways that encourage college-going and increase statewide postsecondary options for career technical students. For more information on CTAGs and opportunities for statewide postsecondary articulated transfer credit, visit https://www.ohiohighered.org/transfer/ct2.

Futuring Panel Contributors

September 11, 2015
Early Childhood Education Participants

Sadhana Arun Director Hilliard Montessori Hilliard, Ohio	**Sarah McClusky** Education Resource Specialist, College of Education and Human Ecology The Ohio State University Columbus, Ohio
Jeanine Bensman Home Based Coordinator Council on Rural Services Piqua, Ohio	**Pam Perrino** Educational Consultant Perrino Consulting Youngstown, Ohio
Stephanie Carlton Assistant Director, Office of Early Learning and School Readiness The Ohio State University Columbus, Ohio	**Nancy Sabath** Program Implementation and Monitoring Ohio Department of Education Columbus, Ohio
Kelly Coffey Chair, Education Department Zane State College Zanesville, Ohio	**Tonya Ward** Senior Counselor Ohio Child Care Resource and Referral Association (OCCRRA) Columbus, Ohio
Jennifer Creque-Blackburn Coordinating Instructor, Early Childhood Education Hocking College Logan, Ohio	**Kim Washington** Early Head Start North Central State College Mansfield, Ohio
Bridget Hires Office of Child Nutrition Ohio Department of Education Columbus, Ohio	**Jane Wiechel** Director, College of Education and Human Ecology The Ohio State University Columbus, Ohio

Teaching Professions Participants

Robert Berns Coordinator, School of Teaching and Learning Bowling Green State University Bowling Green, Ohio	**Jerry Oberhause** State Standards Teacher Liberty Center Schools Liberty Center, Ohio
Julie Brinkman Assistant Principal Buckeye Career Center New Philadelphia, Ohio	**Connie Strebe** Satellite Director Tolles Career and Technical Center Plain City, Ohio
Bree Frick Assistant Professor, Psychology and Education Columbus State Community College Columbus, Ohio	**Chris Zirkle** Career Technical Education Professor The Ohio State University Columbus, Ohio
Lynesa Knick Special Needs Teacher Defiance City Schools Defiance, Ohio	

Validation Panel Participants

Early Childhood Education Participants

Lindsay Carr Instructor Zane State College Zanesville, Ohio	**Misti Norman** Director/Owner Heavenly Kids Center for Learning Columbus, Ohio
Kelly Coffey Chair, Education Department Zane State College Zanesville, Ohio	**Sandra Pech** Assistant Professor, Early Childhood Education Kent State University at Tuscarawas New Philadelphia, Ohio
Marlene Fields Specialist, Office of Early Learning and School Readiness Ohio Department of Education Columbus, Ohio	**Alexis Quinn** Toddler Teacher, Early Childhood Education Brightside Academy Columbus, Ohio
Sandra Haley School Readiness Director Child Development Council; Head Start Columbus, Ohio	**Bobi Thompson** Instructor, Early Childhood Education Buckeye Career Center New Philadelphia, Ohio
Tiffany Hance Director Children First, Inc. Columbus, Ohio	**Tonya Ward** Senior Counselor, Office of Workforce Development Ohio Child Care Resource and Referral Association (OCCRRA) Columbus, Ohio

Teaching Professions Participants

Erica Brownstein Assistant Dean, Office of Educator Preparation The Ohio State University Columbus, Ohio	**Mary Lykens** Career Tech Satellite Supervisor Delaware Area Career Center Delaware, Ohio
Bree Frick Assistant Professor, Psychology and Education Columbus State Community College Columbus, Ohio	**Andrea Mouser** Instructor, Pre-K/Early Childhood Defiance City Schools Defiance, Ohio
Brad Gintert Teacher, Industrial Technology Grandview Heights High School Grandview Heights, Ohio	**Lois Stoll** Teacher, Family and Consumer Sciences Benjamin Logan High School Bellefontaine, Ohio
Courtney Griffiths Supervisor Lorain County Joint Vocational School Oberlin, Ohio	

Development Committee Participants

Erica Brownstein Assistant Dean, Office of Educator Preparation The Ohio State University Columbus, Ohio	**Kelly Marquis** Instructor, Early Childhood Education Tolles Career Technical Center Plain City, Ohio
Kelly Coffey Chair, Education Department Zane State College Zanesville, Ohio	**Rebecca McGrath-Hinkle** Instructor, Early Childhood Education Columbus Downtown High School Columbus, Ohio
Josephine Everhart Teaching Professions Instructor Cuyahoga Valley Career Technical Center Brecksville, Ohio	**Monique Menefee-Profitt** Associate Director, Career-Technical Transfer Initiatives Ohio Department of Higher Education Columbus, Ohio
Bree Frick Assistant Professor, Psychology and Education Columbus State Community College Columbus, Ohio	**Teresa Nissen** Teaching Professions Instructor Anthony Wayne-Penta Career Center Perrysburg, Ohio
Renee Kluding Instructor, Early Childhood Education EHOVE (Erie, Huron, and Ottawa Vocational Education) Milan, Ohio	**Sandra Pech** Assistant Professor, Early Childhood Education Kent State University at Tuscarawas New Philadelphia, Ohio
Chrissy Lauterbach Instructor, Teachers Academy Butler Technical Career Technical Center Hamilton, Ohio	**Dova Zak** Instructor, Family and Consumer Sciences and Early Childhood Education Anthony Wayne-Penta Career Center Perrysburg, Ohio

Career Pathway Definitions

The Education and Training Career Field prepares students for careers in various teaching and child care related positions in a number of different environments.

Early Childhood Education

The Early Childhood Education program areas will prepare students for professional careers in both public and private childcare and educational environments.

Careers for which this pathway prepares students include:

Teaching Assistant, Child Care Worker, Day Care Center Operator, Educational Aide, Student Monitor

Postsecondary majors for which this pathway prepares students include:

Early and Middle Childhood Studies, Early Childhood Education, Middle Childhood Education, Special Education, Technical Education and Training, Human Development and Family Science, Social Work, Elementary Education Administration, Psychology, Counselor Education

Teaching Professions

The Teaching Profession program areas will prepare students for professional careers in educational institutions. In the majority of cases, individuals will need to obtain a baccalaureate degree and teacher certification as a part of the qualifications for being in charge of a classroom.

Careers for which this pathway prepares students include:

Teaching Assistant, Educational Aide, Student Monitor

Postsecondary majors for which this pathway prepares students include:

Early and Middle Childhood Studies, Early Childhood Education, Middle Childhood Education, Special Education, Technical Education and Training, Human Development and Family Science, Social Work, Elementary Education Administration, Psychology, Counselor Education

Strand/Outcome Pathway Chart

An "X" indicates that the pathway applies to the outcome.

Strand/Outcome	Pathway	
	Early Childhood Education	Teaching Professions
Strand 1: Business Operations/21st Century Skills Page 2		
Outcome 1.1: Employability Skills	X	X
Outcome 1.2: Leadership and Communications	X	X
Outcome 1.3: Business Ethics and Law	X	X
Outcome 1.4: Knowledge Management and Information Technology	X	X
Outcome 1.5: Global Environment	X	X
Outcome 1.6: Business Literacy	X	X
Outcome 1.7: Entrepreneurship/Entrepreneurs	X	X
Outcome 1.8: Operations Management	X	X
Outcome 1.9: Financial Management	X	X
Outcome 1.10: Sales and Marketing	X	X
Outcome 1.11: Principles of Business Economics	X	X
Strand 2: Foundations of Education Page 13		
Outcome 2.1: History and Philosophy	X	X
Outcome 2.2: Education Systems	X	X
Outcome 2.3: Professionalism	X	X
Outcome 2.4: Operational Responsibilities	X	X
Outcome 2.5: Human Resource Considerations	X	X
Strand 3: Learners and Their Development Page 18		
Outcome 3.1: Growth and Development Theories	X	X
Outcome 3.2: Cognitive Growth and Development	X	X
Outcome 3.3: Physical Growth and Development	X	X
Outcome 3.4: Social and Emotional Growth and Development	X	X
Outcome 3.5: Language Growth and Development	X	X
Outcome 3.6: Literacy Development	X	X
Outcome 3.7: Cultural Growth and Development	X	X
Outcome 3.8: Learner Characteristics	X	X

Strand/Outcome	Pathway	
	Early Childhood Education	Teaching Professions
Strand 4: Learning Environment **Page 26**		
Outcome 4.1: Safe Environments	X	X
Outcome 4.2: Healthy Environments	X	X
Outcome 4.3: Nutrition	X	
Outcome 4.4: Environmental Design	X	X
Outcome 4.5: Responsive Environment	X	X
Outcome 4.6: Stakeholder Relationships	X	X
Outcome 4.7: Classroom Management	X	X
Strand 5: Curriculum and Instruction **Page 33**		
Outcome 5.1: Curriculum Planning	X	X
Outcome 5.2: Instructional Planning	X	X
Outcome 5.3: Resources	X	X
Outcome 5.4: Instructional Implementation	X	X
Outcome 5.5: Foundations of Teaching Literacy	X	X
Outcome 5.6: Literacy Instruction	X	X
Strand 6: Technology and Online Instruction **Page 39**		
Outcome 6.1: Technology for the Learning Environment	X	X
Outcome 6.2: Blended and Online Learning Foundations	X	X
Outcome 6.3: Online Instructional Design	X	X
Outcome 6.4: Online Implementation	X	X
Strand 7: Observation and Assessment **Page 43**		
Outcome 7.1: Observation and Assessment Foundations	X	X
Outcome 7.2: Observation	X	X
Outcome 7.3: Assessment	X	X
Outcome 7.4: Test Analysis	X	X
Outcome 7.5: Data Applications	X	X
Total Outcomes by Pathway:	46	45
Total Outcomes:	46	

EDUCATION AND TRAINING

CAREER FIELD
TECHNICAL CONTENT STANDARDS

STRANDS 1-7

Strand 1.   Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.1.   Employability Skills
Develop career awareness and employability skills (e.g., face-to-face, online) needed for gaining and maintaining employment in diverse business settings.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies
1.1.1. Identify the knowledge, skills and abilities necessary to succeed in careers.
1.1.2. Identify the scope of career opportunities and the requirements for education, training, certification, licensure and experience.
1.1.3. Develop a career plan that reflects career interests, pathways and secondary and postsecondary options.
1.1.4. Describe the role and function of professional organizations, industry associations and organized labor and use networking techniques to develop and maintain professional relationships.
1.1.5. Develop strategies for self-promotion in the hiring process (e.g., filling out job applications, résumé writing, interviewing skills, portfolio development).
1.1.6. Explain the importance of work ethic, accountability and responsibility and demonstrate associated behaviors in fulfilling personal, community and workplace roles.
1.1.7. Apply problem-solving and critical-thinking skills to work-related issues when making decisions and formulating solutions.
1.1.8. Identify the correlation between emotions, behavior and appearance and manage those to establish and maintain professionalism.
1.1.9. Give and receive constructive feedback to improve work habits.
1.1.10. Adapt personal coping skills to adjust to taxing workplace demands.
1.1.11. Recognize different cultural beliefs and practices in the workplace and demonstrate respect for them.
1.1.12. Identify healthy lifestyles that reduce the risk of chronic disease, unsafe habits and abusive behavior.
1.1.13. Manage time, priorities and resources to achieve personal and professional goals.

Strand 1. Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.2. Leadership and Communications

Process, maintain, evaluate and disseminate information in a business. Develop leadership and team building to promote collaboration.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.2.1. Extract relevant, valid information from materials and cite sources of information (e.g., medical reports, fitness assessment, medical test results).
1.2.2. Deliver formal and informal presentations.
1.2.3. Identify and use verbal, nonverbal and active listening skills to communicate effectively.
1.2.4. Use negotiation and conflict-resolution skills to reach solutions.
1.2.5. Communicate information for an intended audience and purpose.
1.2.6. Use proper grammar and expression in all aspects of communication.
1.2.7. Use problem-solving and consensus-building techniques to draw conclusions and determine next steps.
1.2.8. Identify the strengths, weaknesses and characteristics of leadership styles that influence internal and external workplace relationships.
1.2.9. Identify advantages and disadvantages involving digital and/or electronic communications.
1.2.10. Use interpersonal skills to provide group leadership, promote collaboration and work in a team.
1.2.11. Write professional correspondence, documents, job applications and résumés.
1.2.12. Use technical writing skills to complete forms and create reports.
1.2.13. Identify stakeholders and solicit their opinions.
1.2.14. Use motivational strategies to accomplish goals.

Strand 1.   Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.3.   Business Ethics and Law

Analyze how professional, ethical and legal behavior contributes to continuous improvement in organizational performance and regulatory compliance.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.3.1. Analyze how regulatory compliance affects business operations and organizational performance.

1.3.2. Follow protocols and practices necessary to maintain a clean, safe and healthy work environment.

1.3.3. Use ethical character traits consistent with workplace standards (e.g., honesty, personal integrity, compassion, justice).

1.3.4. Identify how federal and state consumer protection laws affect products and services.

1.3.5. Access and implement safety compliance measures (e.g., quality assurance information, safety data sheets [SDSs], product safety data sheets [PSDSs], United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration [OSHA]) that contribute to the continuous improvement of the organization.

1.3.6. Identify deceptive practices (e.g., bait and switch, identity theft, unlawful door-to-door sales, deceptive service estimates, fraudulent misrepresentations) and their overall impact on organizational performance.

1.3.7. Identify the labor and practice laws that affect employment and the consequences of noncompliance for both employee and employer (e.g., harassment, labor, employment, employment interview, testing, minor labor laws, Americans with Disabilities Act, Fair Labor Standards Acts, Equal Employment Opportunity Commission [EEOC], human trafficking) and interpret personal safety rights according to the employee Right-to-Know Plan.

1.3.8. Verify compliance with computer and intellectual property laws and regulations.

1.3.9. Identify potential conflicts of interest (e.g., personal gain, project bidding) between personal, organizational and professional ethical standards.

Strand 1.   Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.4.   Knowledge Management and Information Technology

Demonstrate current and emerging strategies and technologies used to collect, analyze, record and share information in business operations.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.4.1.   Use office equipment to communicate (e.g., phone, radio equipment, fax machine, scanner, public address systems).

1.4.2.   Select and use software applications to locate, record, analyze and present information (e.g., word processing, e-mail, spreadsheet, databases, presentation, Internet search engines).

1.4.3.   Verify compliance with security rules, regulations and codes (e.g., property, privacy, access, accuracy issues, client and patient record confidentiality) pertaining to technology specific to the industry pathway.

1.4.4.   Use system hardware to support software applications.

1.4.5.   Use information technology tools to maintain, secure and monitor business records.

1.4.6.   Use an electronic database to access and create business and technical information.

1.4.7.   Use personal information management and productivity applications to optimize assigned tasks (e.g., lists, calendars, address books).

1.4.8.   Use electronic media to communicate and follow network etiquette guidelines.

Strand 1.   Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.5.   Global Environment

Evaluate how beliefs, values, attitudes and behaviors influence organizational strategies and goals.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.5.1. Describe how cultural understanding, cultural intelligence skills and cultural awareness are interdependent.
1.5.2. Describe how cultural intelligence skills influence the overall success and survival of an organization.
1.5.3. Use cultural intelligence to interact with individuals from diverse cultural settings.
1.5.4. Recognize barriers in cross-cultural relationships and implement behavioral adjustments.
1.5.5. Recognize the ways in which bias and discrimination may influence productivity and profitability.
1.5.6. Analyze work tasks for understanding and interpretation from a different cultural perspective.
1.5.7. Use intercultural communication skills to exchange ideas and create meaning.
1.5.8. Identify how multicultural teaming and globalization can foster development of new and improved products and services and recognition of new opportunities.

Strand 1.   Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.6.   Business Literacy

Develop foundational skills and knowledge in entrepreneurship, financial literacy and business operations.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.6.1. Identify business opportunities.

1.6.2. Assess the reality of becoming an entrepreneur, including advantages and disadvantages (e.g., risk versus reward, reasons for success and failure).

1.6.3. Explain the importance of planning your business.

1.6.4. Identify types of businesses, ownership and entities (i.e., individual proprietorships, partnerships, corporations, cooperatives, public, private, profit, not-for-profit).

1.6.5. Describe organizational structure, chain of command, the roles and responsibilities of the organizational departments and interdepartmental interactions (e.g., following physician's orders).

1.6.6. Identify the target market served by the organization, the niche that the organization fills and an outlook of the industry.

1.6.7. Identify the effect of supply and demand on products and services.

1.6.8. Identify the features and benefits that make an organization's product or service competitive.

1.6.9. Explain how the performance of an employee, a department and an organization is assessed.

1.6.10. Describe the impact of globalization on an enterprise or organization.

1.6.11. Describe how all business activities of an organization work within the parameters of a budget.

1.6.12. Describe classifications of employee benefits, rights, deductions and compensations.

Strand 1.   Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.7.   Entrepreneurship/Entrepreneurs

Analyze the environment in which a business operates and the economic factors and opportunities associated with self-employment.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.7.1. Compare and contrast the four types of business ownership (i.e., individual proprietorships, partnerships, corporations, cooperatives).

1.7.2. Explain the role of profit as the incentive to entrepreneurs in a market economy.

1.7.3. Identify the factors that contribute to the success and failure of entrepreneurial ventures.

1.7.4. Assess the roles of nonprofit and for-profit businesses.

1.7.5. Develop a business plan.

1.7.6. Describe life cycles of an entrepreneurial business and an entrepreneur.

1.7.7. Create a list of personal strengths, weaknesses, skills and abilities needed to be successful as an entrepreneur.

1.7.8. Explain pathways used to become an entrepreneur.

1.7.9. Conduct a self-assessment to determine entrepreneurial potential.

1.7.10. Describe techniques for obtaining experience (e.g., apprenticeship, co-operative [co-op] education, work placement, internship, job shadowing) related to an entrepreneurial objective.

1.7.11. Identify initial steps in establishing a business (e.g., limited liability company [LLC], tax ID, permits, insurance, licensing).

1.7.12. Identify resources available to entrepreneurs (e.g., Small Business Administration, mentors, information resources, educational opportunities).

1.7.13. Protect intellectual property and knowledge (e.g., copyright, patent, trademark, trade secrets, processes).

Strand 1. Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.8. Operations Management

Plan, organize and monitor an organization or department to maximize contribution to organizational goals and objectives.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.8.1. Forecast future resources and budgetary needs using financial documents (e.g., balance sheet, demand forecasting, financial ratios).

1.8.2. Select and organize resources to develop a product or a service.

1.8.3. Analyze the performance of organizational activities and reallocate resources to achieve established goals.

1.8.4. Identify alternative actions to take when goals are not met (e.g., changing goals, changing strategies, efficiencies).

1.8.5. Use inventory and control systems to purchase materials, supplies and equipment (e.g., Last In, First Out [LIFO]; First In, First Out [FIFO]; Just in Time [JIT]; LEAN).

1.8.6. Identify the advantages and disadvantages of carrying cost and Just-in-Time (JIT) production systems and the effects of maintaining inventory (e.g., perishable, shrinkage, insurance) on profitability.

1.8.7. Collect information and feedback to help assess the organization's strategic planning and policymaking processes.

1.8.8. Identify routine activities for maintaining business facilities and equipment.

1.8.9. Develop a budget that reflects the strategies and goals of the organization.

1.8.10. Analyze how business management and environmental management systems (e.g., health, safety) contribute to continuous improvement and sustainability.

Strand 1.　　Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.9.　　Financial Management

Use financial tools, strategies and systems to develop, monitor and control the use of financial resources to ensure personal and business financial well-being.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.9.1.　Create, analyze, and interpret financial documents (e.g., budgets, income statements).

1.9.2.　Identify tax obligations.

1.9.3.　Review and summarize savings, investment strategies and purchasing options (e.g., cash, lease, finance, stocks, bonds).

1.9.4.　Identify credit types and their uses in order to establish credit.

1.9.5.　Identify ways to avoid or correct debt problems.

1.9.6.　Explain how credit ratings and the criteria lenders use to evaluate repayment capacity affect access to loans.

1.9.7.　Review and summarize categories (types) of insurance and identify how insurances can reduce access to loans.

1.9.8.　Identify income sources and expenditures.

1.9.9.　Compare and contrast different banking services available through financial institutions.

1.9.10. Identify the role of depreciation in tax planning and liability.

1.9.11. Implement established accounting processes and internal cash controls.

Strand 1.   Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.10.   Sales and Marketing

Manage pricing, place, promotion, packaging, positioning and public relations to improve quality customer service.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.10.1. Identify how the roles of sales, advertising and public relations contribute to a company's brand.

1.10.2. Determine the customer's/client's needs and identify solutions and potential community resources.

1.10.3. Communicate features, benefits and warranties of a product or service to the customer/client.

1.10.4. Identify the company policies and procedures for initiating product and service improvements.

1.10.5. Monitor customer/client expectations and determine product/service satisfaction by using measurement tools.

1.10.6. Discuss the importance of correct pricing to support a product's or service's positioning in the marketing mix.

1.10.7. Describe the importance and diversity of distribution channels (i.e., direct, indirect) to sell a product.

1.10.8. Use promotional techniques to maximize sales revenues (e.g., advertising, sales promotions, publicity, public relations).

1.10.9. Describe how product mix (e.g., product line, product items) maximizes sales revenues, market, share and profit margin.

1.10.10. Demonstrate sales techniques.

Strand 1. Business Operations/21st Century Skills

Students apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.11. Principles of Business Economics

Examine and employ economic principles, concepts and policies to accomplish organizational goals and objectives.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

1.11.1. Identify the economic principles that guide geographic location of an industry's facilities (e.g., relative scarcity, price, quantity of products and services).

1.11.2. Identify the difference between monetary and nonmonetary incentives and explain how changes in incentives cause changes in behavior.

1.11.3. Use economic indicators to identify economic trends and conditions (e.g., inflation, interest rate fluctuations, unemployment rates).

1.11.4. Determine how the quality, quantity and pricing of goods and services are affected by domestic and international competition in a market economy.

1.11.5. Analyze factors that affect currency and exchange rates.

1.11.6. Explain how financial markets and government policies influence interest rates (credit ratings/debt ceiling), trade deficits and unemployment.

1.11.7. Describe how economic performance and culture are interdependent.

1.11.8. Identify the relationships between economy, society and environment that lead to sustainability.

1.11.9. Describe how laws and regulations influence domestic and international trade.

Strand 2.   Foundations of Education

Students apply educational philosophies, historical perspectives and organizational insights to enhance their interactions with stakeholders.

Outcome 2.1.   History and Philosophy

Examine and employ education's historical and philosophical underpinnings to benefit from best practices and lessons-learned that can be used to enhance stakeholder understanding and interaction.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

2.1.1. Determine historical aspects of education that impact the current learning environment.
2.1.2. Compare educational models, and explain how they impact the classroom.
2.1.3. Explain the impact of constructivism on the learning environment, instruction, learning activities and assessment.
2.1.4. Describe the shift from instructor-led to learner-directed education.
2.1.5. Explain the nature of learning and its relationship to emerging pedagogies.
2.1.6. Compare theories and philosophies of education and training impacting learners with exceptionalities.
2.1.7. Incorporate changing and emerging educational philosophies into the learning environment.
2.1.8. Explain social development theories and their implications for education and training practices.
2.1.9. Describe the development of modern education and training.
2.1.10. Explain the impact of education and training on society.
2.1.11. Describe the relationships between social stratification and educational equity and their impact on learning and achievement gaps.
2.1.12. Explain the impact of economic, social and technological changes on education and training.
2.1.13. Explain the evolving knowledge base of educational research and theory that guides practice.
2.1.14. Apply educational research findings to improve learner performance.

Strand 2.   Foundations of Education

Students apply educational philosophies, historical perspectives and organizational insights to enhance their interactions with stakeholders.

Outcome 2.2.   Education Systems

Understand the organization and structure of education systems, the roles of their stakeholders and the nature of their funding sources to enhance students' contribution and role in education.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

2.2.1. Explain the goals of education and their role in shaping the education system.

2.2.2. Describe the environments in which education and training are delivered.

2.2.3. Distinguish among federal, state and locally mandated policies, rules and regulations.

2.2.4. Describe the organizational hierarchy in education and training systems.

2.2.5. Describe the role and responsibilities of state and federal education agencies.

2.2.6. Explain learners' and stakeholders' roles, rights and responsibilities in education systems.

2.2.7. Identify how decisions are made in education systems.

2.2.8. Determine the change process and change forces in education systems.

2.2.9. Describe barriers to and impact of systemic change in education systems.

2.2.10. Describe funding sources and levels of contribution to the education system.

2.2.11. Explain financial accountability of education systems and their stakeholders.

2.2.12. Describe accreditation requirements of education systems.

2.2.13. Analyze the community's shifting demographics, and recommend ways that the education system can respond.

Strand 2.   Foundations of Education

Students apply educational philosophies, historical perspectives and organizational insights to enhance their interactions with stakeholders.

Outcome 2.3.   Professionalism
Model behaviors of professional educators, maintain needed licenses or certifications, and advance needed skills to exhibit a desire to contribute to professional growth and development.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

2.3.1.   Compare and contrast professional development processes guiding the preparation of educators.

2.3.2.   Identify processes used to integrate new teachers into an educational institution's culture.

2.3.3.   Target and actively participate in relevant professional development opportunities that foster growth.

2.3.4.   Utilize advocacy skills that can be used to shape educational policies and regulations.

2.3.5.   Adhere to the legal and ethical framework of the teaching profession, and explain the consequences of failing to do so.

2.3.6.   Explain the relationship between educational negligence and liability, and describe protections against liability.

2.3.7.   Engage in reflective practices to strengthen education and training knowledge and skills.

2.3.8.   Seek and use feedback and input from peers and administrators to foster professional growth.

2.3.9.   Create, implement, and evaluate personal action plan for performance improvement.

2.3.10. Promote active and informed citizenship.

2.3.11. Assess and address personal biases that potentially impact stakeholder interactions.

2.3.12. Determine requirements for being an Ohio educator, and explain reasons those requirements change.

2.3.13. Develop a professional development plan for lifelong learning.

2.3.14. Develop a personal philosophy of education.

2.3.15. Create and maintain a professional portfolio.

Strand 2.   Foundations of Education

Students apply educational philosophies, historical perspectives and organizational insights to enhance their interactions with stakeholders.

Outcome 2.4.   Operational Responsibilities

Recognize and fulfill the day-to-day tasks that support teaching and learning.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

2.4.1.   Identify operational responsibilities of educators and trainers.
2.4.2.   Complete and maintain up-to-date records (e.g., incident reports, gradebooks, immunization records).
2.4.3.   Identify and document mastery of standards.
2.4.4.   Maintain up-to-date financial records.
2.4.5.   Determine the nature of needed documentation and paperwork, and complete them according to protocol.
2.4.6.   Select and maintain classroom equipment and supplies.
2.4.7.   Develop a community resource file for use in planning instructional activities.

Strand 2. Foundations of Education

Students apply educational philosophies, historical perspectives and organizational insights to enhance their interactions with stakeholders.

Outcome 2.5. Human Resource Considerations

Determine human resource considerations in obtaining and maintaining employment in education or training.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

2.5.1. Describe staff rights and evolving roles in educational settings.

2.5.2. Identify sources that can be used to determine available positions in education or training.

2.5.3. Describe evaluation methods and procedures used with professionals in education and training.

2.5.4. Identify how to access information about educator or trainer benefit packages.

2.5.5. Explain the nature and impact of organized labor on education or training staff and administrators.

2.5.6. Analyze job descriptions to determine roles and responsibilities.

2.5.7. Identify procedures followed by educational agencies when dismissing employees.

Strand 3.   Learners and Their Development

Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.1.   Growth and Development Theories

Apply the theoretical foundations of human growth and development that can enhance work with learners.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

3.1.1.   Describe the interdependence of the developmental domains (e.g., social, emotional, cognitive, language, sensory, creative, physical, adaptive).

3.1.2.   Explain developmental stages and milestones.

3.1.3.   Explain growth and development theories (e.g., Piaget's stages of cognitive development, Erickson's theory of human development, Kohlberg's stages of moral development).

3.1.4.   Apply development theories to different ages and stages of learner development.

3.1.5.   Develop holistic view of learners through the application of growth and development theories.

Strand 3.   Learners and Their Development

Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.2.   Cognitive Growth and Development

Apply cognitive growth and development principles to develop a holistic picture of a learner.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

3.2.1.   Describe how learning processes occur neurologically.

3.2.2.   Evaluate learners to determine their learning styles.

3.2.3.   Explain sequences, stages and milestones of cognitive development.

3.2.4.   Describe issues associated with cognitive development and growth.

3.2.5.   Explain how interactions and the environment impact brain function, growth and development.

3.2.6.   Create opportunities for learners to explore their self-interests.

3.2.7.   Observe, analyze, and determine a learner's cognitive growth and development.

3.2.8.   Align instructional strategies and interventions to learners' stages of cognitive development and learning.

Strand 3.　　Learners and Their Development

Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.3.　　Physical Growth and Development

Apply physical growth and development principles to develop a holistic picture of a learner.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

3.3.1.　Describe the milestones of physical growth and development.

3.3.2.　Determine learners' physical development stages and milestones.

3.3.3.　Analyze strategies to support learners' physical growth and development.

3.3.4.　Implement activities and strategies that can be used to promote motor-skill development.

3.3.5.　Allocate time for structured and unstructured physical activity based on age band.

3.3.6.　Organize structured activities to promote learners' health.

3.3.7.　Align strategies to learners' stages of physical development.

Strand 3.   Learners and Their Development

Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.4.   Social and Emotional Growth and Development

Apply social and emotional growth and development principles to develop a holistic picture of a learner.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

3.4.1. Identify learner characteristics and differences, and explain how they impact learning.
3.4.2. Explain genetic and environmental conditions that affect social growth and development.
3.4.3. Identify how attachment impacts relationships.
3.4.4. Identify factors impacting learners' self-regulation.
3.4.5. Describe how caring, consistent relationships with adults provide external supports.
3.4.6. Implement strategies to ease separation anxiety.
3.4.7. Use strategies to help learners express their emotions.
3.4.8. Incorporate strategies that support social and emotional growth.
3.4.9. Explain how play provides opportunity for learners to grow and develop.
3.4.10. Model self-control for learners.
3.4.11. Apply behavioral-management techniques to advance learners' social and emotional growth.
3.4.12. Use communication techniques that promote social growth and development.

Strand 3.   Learners and Their Development

Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.5.   Language Growth and Development

Apply linguistic principles and practices in the development of language skills.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

3.5.1.   Explain the interrelationships of language development with cognitive, physical and social/emotional development.

3.5.2.   Explain how language is developed.

3.5.3.   Describe the importance of listening, conversing and gesturing as foundations for learning languages or multiple languages.

3.5.4.   Identify the relationship between oral language development and reading.

3.5.5.   Explain the purposes for which learners use oral language.

3.5.6.   Describe the significance of learners' self-talk.

3.5.7.   Use the technique of recasting to support a learner's language skills and development.

3.5.8.   Explain stages of English acquisition for multi-language learners.

3.5.9.   Explain the role of the home language in promoting development of English language and literacy.

3.5.10. Identify the home-language environment of each learner.

3.5.11. Determine stage of a learner's English language development sequence.

3.5.12. Demonstrate purposeful, intentional use of language that encourages conversation.

3.5.13. Apply techniques to respond to code switching.

3.5.14. Use code switching as a teaching strategy.

3.5.15. Model correct use of language (e.g., structures, grammar, tone, volume, expression).

3.5.16. Collaborate with families to set language learning goals for their learners.

3.5.17. Promote development of home language while facilitating English language acquisition.

3.5.18. Determine staff supports needed to assess and individualize instruction for multi-language learners.

Strand 3.   Learners and Their Development

Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.6.   Literacy Development

Apply strategies to determine a learner's stage of literacy development, and implement needed supports to facilitate literacy growth.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

3.6.1.   Explain the interaction of reading, writing, speaking and listening in literacy development.
3.6.2.   Describe factors impacting a learner's preparation to read.
3.6.3.   Describe stages of literacy development.
3.6.4.   Explain factors impacting the progression of the learner through the stages of reading development.
3.6.5.   Describe how content areas support literacy development.
3.6.6.   Identify characteristics of proficient readers.
3.6.7.   Identify the knowledge and skills that learners need to read with comprehension and fluency.
3.6.8.   Analyze a learner's writing samples to determine literacy growth and development.
3.6.9.   Evaluate a learner's reading readiness through classroom observation and assessment.

Strand 3.   Learners and Their Development

Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.7.   Cultural Growth and Development

Determine the impact of culture on learner development and behaviors to guide interactions, curriculum decisions, resource selections and instructional planning and delivery.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

3.7.1.   Explain the growth and development of a person's culture.

3.7.2.   Describe the role of cultural and environmental influences on a learner's development.

3.7.3.   Describe the impact of culture on adults' behavior with learners.

3.7.4.   Acquire unbiased information about cultural groups in the community.

3.7.5.   Obtain information about a learner's culture.

3.7.6.   Implement strategies and techniques that encourage self-esteem and responsibility in learners.

3.7.7.   Determine personal contributions to working with culturally diverse communities and learners by reflecting on one's own personal culture.

3.7.8.   Address cultural relevance in making curriculum choices and adaptations.

3.7.9.   Establish goals for multilingualism, multi-literacy and multiculturalism.

Strand 3. Learners and Their Development

Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.8.   Learner Characteristics

Select educational services aligned to learner characteristics.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

3.8.1. Identify a learner's interests, abilities and developmental progress.

3.8.2. Compare the relationship between academic achievement and a learner's physical, emotional and mental health.

3.8.3. Identify types of accommodations and modifications that support learners' social, emotional, cognitive and physical growth.

3.8.4. Identify exceptional learners based on established criteria and provide aligned services as needed.

3.8.5. Identify multi-language learners to determine needed support services.

3.8.6. Compare the purposes, value and uses of Individualized Family Service Plans (IFSPs), Individualized Education Programs (IEPs), and Section 504 Plans and Curriculum Accommodation Plans (DCAPs).

3.8.7. Identify the processes and procedures for writing a plan for intervention services.

Strand 4.   Learning Environment

Students apply principles of safe, healthy, productive and respectful learning environments to promote positive interactions, active engagement in learning and stakeholder collaboration.

Outcome 4.1.   Safe Environments

Establish and maintain a physically and emotionally safe environment for learners, staff, administrators and volunteers.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

4.1.1.   Ensure a safe learning environment.

4.1.2.   Follow established first aid and CPR protocols for addressing medical emergencies.

4.1.3.   Develop and follow emergency action plans.

4.1.4.   Design, maintain, and modify the classroom layout to create a safe environment.

4.1.5.   Identify staff or agencies needed to resolve safety issues or violations.

4.1.6.   Identify the signs, symptoms and impact of physical and mental abuse; and adhere to reporting protocol.

4.1.7.   Recognize signs of drug or alcohol abuse, and adhere to reporting protocol.

4.1.8.   Identify resources, organizations and agencies committed to assisting victims of physical and/or mental abuse.

4.1.9.   Identify restraint-training techniques and the impact of initiating them.

4.1.10. Identify foods and objects that may cause choking in learners.

Strand 4.   Learning Environment

Students apply principles of safe, healthy, productive and respectful learning environments to promote positive interactions, active engagement in learning and stakeholder collaboration.

Outcome 4.2.   Healthy Environments

Establish, implement, and monitor practices and conditions to promote health.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

4.2.1.   Model appropriate cleanliness and hygiene practices.

4.2.2.   Maintain a sanitary environment by following appropriate policies and procedures.

4.2.3.   Update and maintain health records according to protocol.

4.2.4.   Identify signs and symptoms of common childhood health issues and diseases.

4.2.5.   Follow established protocols for monitoring and reporting suspected cases of distress or communicable diseases.

4.2.6.   Implement procedures for administering physician's orders or parent instructions when treating a learner with a medical condition.

4.2.7.   Integrate activities that promote healthy, active living.

4.2.8.   Collaborate with families to establish strategies for healthy lifestyles.

Strand 4.   Learning Environment

Students apply principles of safe, healthy, productive and respectful learning environments to promote positive interactions, active engagement in learning and stakeholder collaboration.

Outcome 4.3.   Nutrition

Establish and implement activities related to proper nutrition.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	

Competencies

4.3.1.   Identify the role that nutrition plays in growth and development.
4.3.2.   Determine appropriate dietary guidelines for healthy meals or snacks.
4.3.3.   Identify nutritional needs of learners based on age and stage of development.
4.3.4.   Describe the effects of nutrients on health, appearance and peak performance.
4.3.5.   Identify barriers that prevent learners from obtaining proper nutrition.
4.3.6.   Implement strategies that promote healthy eating habits.
4.3.7.   Identify and adhere to special dietary needs of learners.
4.3.8.   Identify strategies to broaden learners' food experiences.
4.3.9.   Develop menus for healthy meals and snacks.
4.3.10. Explain the importance of social interaction for learners during snack and mealtimes.
4.3.11. Document and report food-related concerns or incidents to a learner's family.

Strand 4. Learning Environment

Students apply principles of safe, healthy, productive and respectful learning environments to promote positive interactions, active engagement in learning and stakeholder collaboration.

Outcome 4.4.   Environmental Design

Create and maintain an environment to promote learning, encourage interaction and facilitate classroom management.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

4.4.1. Compare the effectiveness of different learning environments.

4.4.2. Analyze the impact of environmental factors on the learning environment.

4.4.3. Create a learning environment that fosters collaborative and individual work.

4.4.4. Incorporate learning areas in classroom design to provide learners space to build, create and engage in self-expression.

4.4.5. Maintain and modify the learning environment to accommodate performance and behavior.

4.4.6. Create an inclusive learning environment by implementing Universal Design principles and guidelines.

4.4.7. Create learning centers to enable learners to work independently and in small groups.

4.4.8. Design the physical learning environment to address learner needs and abilities.

Strand 4. Learning Environment

Students apply principles of safe, healthy, productive and respectful learning environments to promote positive interactions, active engagement in learning and stakeholder collaboration.

Outcome 4.5. Responsive Environment

Establish and maintain a productive and respectful learning environment.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

4.5.1. Describe the benefits of a globally based learning environment.
4.5.2. Distinguish between individual and group diversity.
4.5.3. Identify the impact of diversity on the learning environment.
4.5.4. Demonstrate cultural awareness.
4.5.5. Model respect for individuals' or groups' culturally unique factors.
4.5.6. Develop rapport with learners.
4.5.7. Interact with learners in responsive, consistent, encouraging and supportive ways.
4.5.8. Use positive guidance techniques.
4.5.9. Create a supportive and inclusive learning environment that promotes positive interactions and behaviors to minimize risks.
4.5.10. Set and communicate high and attainable expectations for all learners.
4.5.11. Establish and follow classroom routines.
4.5.12. Determine the impact of diversity in an education and training setting (e.g., linguistics, intellectual abilities, beliefs and values).
4.5.13. Create a culturally compatible learning environment.

Strand 4.   Learning Environment

Students apply principles of safe, healthy, productive and respectful learning environments to promote positive interactions, active engagement in learning and stakeholder collaboration.

Outcome 4.6.   Stakeholder Relationships

Establish and maintain productive relationships with family members, caregivers and community partners.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

4.6.1.   Describe the advantages and importance of family or caregiver involvement in learner development.
4.6.2.   Identify and implement techniques to constructively and supportively communicate with families or caregivers.
4.6.3.   Plan, facilitate, and document parent-teacher conferences.
4.6.4.   Use family engagement strategies to partner with families in making decisions.
4.6.5.   Collaborate with families to enhance support provided to the learner.
4.6.6.   Communicate reading strategies to families to help them engage learner's literacy interests.
4.6.7.   Involve family or caregiver in resolving a learner's conflicts or issues.
4.6.8.   Assist families or caregivers in addressing challenging learner behaviors outside the learning environment.
4.6.9.   Explain the role and value of external support agencies in education.
4.6.10. Collaborate with stakeholders and intervention team to meet requirements of learners.
4.6.11. Explain ways in which community members can contribute to learning experiences.
4.6.12. Establish and grow positive relationships with community partners.
4.6.13. Engage community partners in developing learning opportunities.

Strand 4. Learning Environment

Students apply principles of safe, healthy, productive and respectful learning environments to promote positive interactions, active engagement in learning and stakeholder collaboration.

Outcome 4.7. Classroom Management

Manage classroom behavior to create an environment conducive to learning.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

4.7.1. Identify the importance of learner self-regulation as related to classroom management**.**

4.7.2. Recognize reasons that learners exhibit inappropriate behavior, and recommend and implement intervention strategies.

4.7.3. Communicate and monitor classroom expectations.

4.7.4. Apply classroom-management techniques to monitor learner engagement.

4.7.5. Respond to and redirect learner behavior.

4.7.6. Implement techniques to foster positive learner behavior.

4.7.7. Implement strategies to encourage learners to comply with classroom rules and procedures.

4.7.8. Identify ways that cultural perspectives can impact conflicts.

4.7.9. Determine when to involve stakeholders in conflict-resolution activities.

4.7.10. Involve learners in development of behavioral standards for the learning environment.

4.7.11. Differentiate instructional strategies to keep all learners engaged.

## Strand 5.	Curriculum and Instruction

Students apply developmentally and intellectually appropriate pedagogies to develop curriculum and implement instructional strategies that promote the physical, cognitive and emotional development of learners.

### Outcome 5.1.	Curriculum Planning

Develop curriculum that ensures learners receive integrated, coherent learning experiences.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

5.1.1.	Identify school, district and state curriculum priorities.
5.1.2.	Solicit and use stakeholder input into curriculum planning.
5.1.3.	Develop curriculum map through collaboration with colleagues.
5.1.4.	Assess learners' prior level of understanding.
5.1.5.	Create instructional calendar to schedule curriculum topics and planned assessments.
5.1.6.	Write objectives aligned to desired learning outcome.
5.1.7.	Align curriculum to state and national standards.
5.1.8.	Integrate standards across the curriculum.
5.1.9.	Integrate employability skills into the curriculum and activities.
5.1.10.	Identify factors to evaluate in determining mastery of content.

Strand 5.   Curriculum and Instruction

Students apply developmentally and intellectually appropriate pedagogies to develop curriculum and implement instructional strategies that promote the physical, cognitive and emotional development of learners.

Outcome 5.2.   Instructional Planning

Plan instructional strategies and activities to promote learner development.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

5.2.1.   Incorporate relevant, real-life experiences into lessons.
5.2.2.   Evaluate game-based learning and gamification.
5.2.3.   Describe types of learning styles and their influence on instruction.
5.2.4.   Use multiple strategies within a lesson to support differentiated instruction.
5.2.5.   Create instructional plans.
5.2.6.   Determine time required for implementation of instructional activities.
5.2.7.   Plan developmentally appropriate learning experiences that engage learners in individual and collaborative learning activities.
5.2.8.   Integrate language and literacy into all classroom activities.
5.2.9.   Incorporate instructional scaffolding.
5.2.10. Use reflection strategies for evaluating the effectiveness of a lesson.
5.2.11. Select reflection strategies for learner implementation.
5.2.12. Determine adjustments to instructional plan based on learners' growth, development and understanding.
5.2.13. Incorporate evaluation strategies that measure a lesson's learning outcomes.

Strand 5.   Curriculum and Instruction

Students apply developmentally and intellectually appropriate pedagogies to develop curriculum and implement instructional strategies that promote the physical, cognitive and emotional development of learners.

Outcome 5.3.   Resources

Select, prepare, and utilize resources; and provide opportunities to promote learner development and advancement.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

5.3.1.   Determine resources needed to support identified learning objectives.
5.3.2.   Select materials that extend or reinforce learning and comprehension.
5.3.3.   Utilize resources that facilitate the global learning process.
5.3.4.   Select and implement learning materials and experiences that provide a multicultural perspective.
5.3.5.   Determine opportunities for involving stakeholders in learners' activities.
5.3.6.   Prepare and engage stakeholders for participation in learning experiences with learners.
5.3.7.   Identify technology resources to support the needs of learners.
5.3.8.   Engage learners in community activities that extend classroom curriculum.
5.3.9.   Implement intra-curricular activities that can be used to extend or reinforce learning.
5.3.10. Create opportunities that support learner growth and development through extra-curricular activities.
5.3.11. Identify opportunities available for learners to acquire postsecondary credit.

Strand 5.   Curriculum and Instruction

Students apply developmentally and intellectually appropriate pedagogies to develop curriculum and implement instructional strategies that promote the physical, cognitive and emotional development of learners.

Outcome 5.4.   Instructional Implementation

Implement instructional strategies and methods to meet the needs of all learners.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

5.4.1.   Determine advantages and disadvantages of instructional strategies and methods.
5.4.2.   Use theories and research-based principles of learning to deliver effective instruction.
5.4.3.   Use techniques to develop learner interest in lessons.
5.4.4.   Implement pacing and time-management techniques to ensure achievement of a lesson's outcomes.
5.4.5.   Review performance criteria with learners to clarify their understanding of desired outcomes.
5.4.6.   Implement current and emerging technology to deliver instruction.
5.4.7.   Utilize questioning techniques to determine, clarify or extend learner understanding.
5.4.8.   Contextualize concepts and examples to facilitate learner understanding.
5.4.9.   Scaffold new ideas to learners' existing knowledge.
5.4.10. Provide clear and specific directions and feedback to learners.
5.4.11. Anticipate and clarify learner misconceptions.
5.4.12. Implement and adjust instructional plan to accommodate learner needs or unforeseen circumstances.
5.4.13. Apply grouping strategies to support instructional activities.
5.4.14. Implement strategies to overcome language barriers between instructor and learner.
5.4.15. Implement developmentally appropriate instructional activities that support differentiated learning.
5.4.16. Implement learner reflection strategies to extend and enhance learning.

Strand 5. Curriculum and Instruction

Students apply developmentally and intellectually appropriate pedagogies to develop curriculum and implement instructional strategies that promote the physical, cognitive and emotional development of learners.

Outcome 5.5. Foundations of Teaching Literacy

Examine the foundational principles of literacy to enhance instruction.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

5.5.1. Explain the importance of early reading success to lifelong learning.
5.5.2. Recognize the purposes of phonemic awareness, phonics and word study in instruction.
5.5.3. Identify the benefits of using segmenting, blending and manipulating sounds in teaching phonemic awareness.
5.5.4. Identify instructional approaches used to teach reading and writing.
5.5.5. Identify instructional strategies used to teach reading.
5.5.6. Identify factors to consider in the selection of texts for readers.
5.5.7. Compare the use of traditional reading groups and guided reading groups.
5.5.8. Compare independent reading with silent-sustained reading.
5.5.9. Explain reading comprehension strategies used by the learner.
5.5.10. Describe features and types of factual and fictional texts.
5.5.11. Describe the characteristics, purposes and examples of graphic organizers.
5.5.12. Identify oral language activities appropriate for specific instructional strategies.

Strand 5.   Curriculum and Instruction

Students apply developmentally and intellectually appropriate pedagogies to develop curriculum and implement instructional strategies that promote the physical, cognitive and emotional development of learners.

Outcome 5.6.   Literacy Instruction

Implement instructional strategies and methods to develop learners' reading, writing, listening and speaking skills.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

5.6.1.   Collaborate with learners to establish reading goals and expectations.

5.6.2.   Plan and implement strategies to promote phonemic awareness, phonics and word study.

5.6.3.   Implement activities to encourage readers to respond to texts.

5.6.4.   Implement activities for learners to identify similarities and differences in the structure of texts, sentences, words and letters.

5.6.5.   Develop and implement reading activities that activate and extend a learner's background knowledge.

5.6.6.   Implement reading comprehension strategies.

5.6.7.   Select and implement instructional methods to enhance learners' reading comprehension.

5.6.8.   Model how to decode words.

5.6.9.   Implement strategies to enable learners to build their vocabulary in the context of reading.

5.6.10. Model reading strategies for learners to utilize for challenging words.

5.6.11. Plan and conduct read-alouds.

5.6.12. Conduct shared readings.

5.6.13. Use prompts questions and cues to encourage readers to figure out difficult words and texts.

5.6.14. Plan and conduct guided reading lessons.

5.6.15. Plan, conduct, and monitor independent reading.

5.6.16. Utilize techniques that help to develop prewriting skills.

5.6.17. Implement writing activities to use for reading instruction.

5.6.18. Implement scaffolding strategies to expand language and writing experiences based on children's interests.

5.6.19. Provide support to readers in their zone of proximal development.

5.6.20. Assist learners in developing non-verbal cues and listening skills.

5.6.21. Promote learner-to-learner and learner-to-adult conversations.

Strand 6.   Technology and Online Instruction

Students apply technology in the learning environment and use developmentally and intellectually appropriate pedagogies to design and implement online instructional materials and strategies that promote learners' growth and development.

Outcome 6.1.   Technology for the Learning Environment

Understand tools and applications that provide the basis for the use of technology in the learning environment.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

6.1.1.   Identify the capabilities of technology.

6.1.2.   Explain technology concepts that emphasize user-generated content used in learning environments.

6.1.3.   Engage in continuous learning in relation to current and emerging technologies used in the learning environment.

6.1.4.   Engage colleagues, learners and stakeholders in educational networking sites.

6.1.5.   Compare and contrast the use of social media for personal and educational purposes.

6.1.6.   Follow established protocol and practices necessary to maintain professional identity and reputation while using social media and educational networking sites.

6.1.7.   Assist learners in understanding short and long-term impacts of digital footprints.

6.1.8.   Develop and maintain an online personal learning network.

6.1.9.   Assist learners in using educational networking tools to communicate and problem-solve.

6.1.10. Collaborate with learners and stakeholders to address technology gaps.

Strand 6.   Technology and Online Instruction

Students apply technology in the learning environment and use developmentally and intellectually appropriate pedagogies to design and implement online instructional materials and strategies that promote learners' growth and development.

Outcome 6.2.   Blended and Online Learning Foundations

Apply principles and concepts of online learning to course design and implementation.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

6.2.1. Compare online learning versus traditional learning environments.
6.2.2. Describe types of online learning.
6.2.3. Describe components of effective online learning.
6.2.4. Describe issues associated with accessibility and inclusivity in online learning.
6.2.5. Explain issues associated with copyrights and property norms in online learning.
6.2.6. Describe how online learning can be used to promote higher-order thinking skills.
6.2.7. Describe the implications of behavioral, cognitive and constructivist perspectives for online learning.
6.2.8. Describe influences that affect the design of online learning activities.
6.2.9. Analyze trends in online instructional design and implementation.

Strand 6.   Technology and Online Instruction

Students apply technology in the learning environment and use developmentally and intellectually appropriate pedagogies to design and implement online instructional materials and strategies that promote learners' growth and development.

Outcome 6.3.   Online Instructional Design

Design online courses or materials to deliver curriculum.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

6.3.1.   Use online design principles to identify course materials suited for a blended learning environment.

6.3.2.   Select background colors and fonts that contribute to readability.

6.3.3.   Determine capabilities of available learning management system.

6.3.4.   Design online course navigation.

6.3.5.   Develop introductory material and syllabus for online course.

6.3.6.   Structure content in learning management system.

6.3.7.   Use multimedia tools and online learning management system to enrich blended and online learning opportunities.

6.3.8.   Design and sequence planned online learning interactions.

6.3.9.   Apply interactive capabilities of online learning management system.

6.3.10. Prepare resources that can be used to support learners' learning styles.

6.3.11. Construct online learning content, activities and assessments utilizing Universal Design principles.

6.3.12. Incorporate online tools that facilitate teacher-to-learner and learner-to-learner communication.

6.3.13. Integrate digital literacy strategies into the curriculum.

6.3.14. Incorporate formal and informal course and curriculum feedback methods for learners and stakeholders.

Strand 6.   Technology and Online Instruction

Students apply technology in the learning environment and use developmentally and intellectually appropriate pedagogies to design and implement online instructional materials and strategies that promote learners' growth and development.

Outcome 6.4.   Online Implementation

Implement online instructional strategies and methods to meet targeted goals.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

6.4.1.   Orient learners to online platform and course processes and procedures.
6.4.2.   Instruct learners on providing online peer-to-peer feedback.
6.4.3.   Implement instructional methods and electronic media to support standards-based lessons.
6.4.4.   Interact with online learners through regular postings.
6.4.5.   Implement engagement techniques for online instruction.
6.4.6.   Monitor and respond to learner feedback and questions.
6.4.7.   Address technical challenges and issues encountered.
6.4.8.   Foster collaboration through online community platforms.

Strand 7.   Observation and Assessment

Students create and administer observations and diagnostic, formative and summative assessments and use the resulting data to modify and improve instruction, to determine needed remediation and to adjust future observations and assessments.

Outcome 7.1.   Observation and Assessment Foundations

Describe the value and need for observation and assessment in the education process.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

7.1.1.   Compare the purpose, value and use of formal and informal observation.
7.1.2.   Describe the impact of observation findings on curriculum and needed environmental changes.
7.1.3.   Explain the purposes and impact of assessment.
7.1.4.   Explain how assessments can be used as an effective medium for communication between the instructor and the learner.
7.1.5.   Distinguish among formative, summative and diagnostic assessment.
7.1.6.   Distinguish between norm-referenced and criterion-referenced assessments.
7.1.7.   Describe the need to provide immediate and frequent feedback to learners.
7.1.8.   Explain the potential use of adaptive technologies in assessment.
7.1.9.   Describe the use and value of mastery learning techniques.
7.1.10. Identify interventions often used to assist learners with testing.

Strand 7.   Observation and Assessment

Students create and administer observations and diagnostic, formative and summative assessments and use the resulting data to modify and improve instruction, to determine needed remediation and to adjust future observations and assessments.

Outcome 7.2.   Observation

Administer formal observations to evaluate learners' growth and development progress and to diagnose problems.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

7.2.1.   Identify procedures and best practices for administering formal observations.
7.2.2.   Select tools for recording and categorizing learner progress.
7.2.3.   Screen learners' overall health status, developmental strengths and weaknesses.
7.2.4.   Analyze a learner's nonverbal behaviors and rely on behavioral cues to see what a learner knows and can do.
7.2.5.   Identify the development of learners' receptive and expressive language skills by regularly and systematically observing learners in various contexts.
7.2.6.   Maintain observational and anecdotal records to monitor learners' development.
7.2.7.   Use observation records to identify patterns, trends and conclusions about individuals and groups of learners.
7.2.8.   Use formal observation to develop a holistic picture of the learner.
7.2.9.   Use observation to scaffold learning for individual learners.
7.2.10. Prepare formal and informal learner observations that are objective and factual.
7.2.11. Assess development of learners' literacy capabilities.
7.2.12. Identify reading concerns, and implement interventions.
7.2.13. Create a developmental plan for the learner.
7.2.14. Utilize ongoing learner observation to recognize developmental goal attainment.
7.2.15. Assess learners' readiness to transition.
7.2.16. Use observations to align curricular activities.
7.2.17. Communicate observation outcomes to stakeholders.

Strand 7. Observation and Assessment

Students create and administer observations and diagnostic, formative and summative assessments and use the resulting data to modify and improve instruction, to determine needed remediation and to adjust future observations and assessments.

Outcome 7.3. Assessment

Develop and administer assessments to evaluate learner understanding and skill development.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

7.3.1. Describe the characteristics, strengths, limitations and uses of assessment tools.

7.3.2. Explain potential consequences of misusing or overusing assessment procedures.

7.3.3. Align assessments with desired or mandated learning outcomes.

7.3.4. Choose assessment methods appropriate for learning environment and instructional goals.

7.3.5. Identify required assessment and testing instruments.

7.3.6. Develop selected-response test items and keys.

7.3.7. Develop constructed-response test items and scoring guide.

7.3.8. Distinguish between holistic and analytical rubrics.

7.3.9. Develop performance scenarios and rubrics.

7.3.10. Facilitate development of learners' portfolios.

7.3.11. Prepare learners for the demands of specific assessment formats.

7.3.12. Administer assessments.

7.3.13. Use scoring guides and rubrics to score projects and essay questions.

7.3.14. Create and use rubrics and rating scales to score performance assessments.

7.3.15. Communicate assessment outcomes to stakeholders.

Strand 7.   Observation and Assessment

Students create and administer observations and diagnostic, formative and summative assessments and use the resulting data to modify and improve instruction, to determine needed remediation and to adjust future observations and assessments.

Outcome 7.4.   Test Analysis
Evaluate quality and effectiveness of assessments.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies
7.4.1.   Describe reasons learners respond incorrectly to test items.
7.4.2.   Determine test-item discrimination.
7.4.3.   Distinguish between validity and reliability.
7.4.4.   Explain types of validity.
7.4.5.   Determine test-item validity and reliability.
7.4.6.   Resolve issues or problems with test items.
7.4.7.   Interpret commonly reported scores on standardized tests.
7.4.8.   Interpret summary indexes often reported with assessment results.
7.4.9.   Determine patterns in assessment data for groups of learners.

Strand 7.   Observation and Assessment

Students create and administer observations and diagnostic, formative and summative assessments and use the resulting data to modify and improve instruction, to determine needed remediation and to adjust future observations and assessments.

Outcome 7.5.   Data Applications

Apply data to improve curriculum and instruction and to foster learner growth and development.

An "X" indicates that the pathway applies to the outcome.

Early Childhood Education	Teaching Professions
X	X

Competencies

7.5.1.   Identify types and sources of data that can be used for educational improvement.
7.5.2.   Display data in visual representations to illustrate learning results.
7.5.3.   Describe ways that data can be used for educational improvement.
7.5.4.   Explain ways that data are used by administrators to drive educational performance.
7.5.5.   Explain the importance of considering measurement errors when making learner decisions.
7.5.6.   Determine and implement needed corrective measures based on test analysis.
7.5.7.   Construct and administer surveys to obtain curricular feedback.
7.5.8.   Analyze formal and informal feedback for curriculum evaluation purposes.
7.5.9.   Interpret data to inform teaching responses and strategies.
7.5.10. Interpret and use assessment data to motivate learners and enhance their performance.

Webb's Depth of Knowledge Analysis

This analysis identifies Webb's Depth of Knowledge (DOK) level for each competency organized into strands and outcomes based on the four levels of DOK described below:

1. **Recall and Reproduction**

   Explain simple concepts or routine procedures; recall elements and details; recall a fact, term or property; conduct basic calculations; order rational numbers; identify a standard scientific representation for simple phenomenon; label locations; describe features of a place or people; identify figurative language in a reading passage.

2. **Skills and Concepts**

   Solve routine multiple step problems; describe non-trivial patterns; interpret information from a simple graph; formulate a routine problem, given data and conditions; sort objects; show relationships; apply a concept; organize, represent and interpret data; use context clues to identify the meaning of unfamiliar words; describe the cause/effect of a particular event; predict a logical outcome; identify patterns in events or behavior.

3. **Strategic Thinking**

   Solve non-routine problems; interpret information from a complex graph; explain phenomena in terms of concepts; support ideas with details and examples; develop a scientific model for a complex situation; formulate conclusions from experimental data; compile information from multiple sources to address a specific topic; develop a logical argument; identify and then justify a solution; identify the author's purpose and explain how it affects the interpretation of a reading selection.

4. **Extended Thinking**

   Design and conduct an experiment that requires specifying a problem and report results/solutions; synthesize ideas into new concepts; critique experimental designs; design a mathematical model to inform and solve a practical or abstract situation; connect common themes across texts from different cultures; synthesize information from multiple sources.

Standard/Outcome/Competency		DOK Level
Strand 1: Business Operations/21st Century Skills		
Outcome 1.1. Employability Skills: Develop career awareness and employability skills (e.g., face-to-face, online) needed for gaining and maintaining employment in diverse business settings.		
Outcome 1.1. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.2. Leadership and Communications: Process, maintain, evaluate and disseminate information in a business. Develop leadership and team building to promote collaboration.		
Outcome 1.2. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.3. Business Ethics and Law: Analyze how professional, ethical and legal behavior contributes to continuous improvement in organizational performance and regulatory compliance.		
Outcome 1.3. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.4. Knowledge Management and Information Technology: Demonstrate current and emerging strategies and technologies used to collect, analyze, record and share information in business operations.		
Outcome 1.4. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.5. Global Environment: Evaluate how beliefs, values, attitudes and behaviors influence organizational strategies and goals.		
Outcome 1.5. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.6. Business Literacy: Develop foundational skills and knowledge in entrepreneurship, financial literacy and business operations.		
Outcome 1.6. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**

Outcome 1.7. Entrepreneurship/Entrepreneurs: Analyze the environment in which a business operates and the economic factors and opportunities associated with self-employment.		
Outcome 1.7. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.8. Operations Management: Plan, organize and monitor an organization or department to maximize contribution to organizational goals and objectives.		
Outcome 1.8. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.9. Financial Management: Use financial tools, strategies and systems to develop, monitor and control the use of financial resources to ensure personal and business financial well-being.		
Outcome 1.9. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.10. Sales and Marketing: Manage pricing, place, promotion, packaging, positioning and public relations to improve quality customer service.		
Outcome 1.10. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Outcome 1.11. Principles of Business Economics: Examine and employ economic principles, concepts and policies to accomplish organizational goals and objectives.		
Outcome 1.11. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**0**
	Level 4:	**0**
Strand 2. Foundations of Education: Students apply educational philosophies, historical perspectives and organizational insights to enhance their interactions with stakeholders.		
Outcome 2.1. History and Philosophy: Examine and employ education's historical and philosophical underpinnings to benefit from best practices and lessons-learned that can be used to enhance stakeholder understanding and interaction.		
2.1.1. Determine historical aspects of education that impact the current learning environment.		**2**
2.1.2. Compare educational models, and explain how they impact the classroom.		**2**
2.1.3. Explain the impact of constructivism on the learning environment, instruction, learning activities and assessment.		**2**
2.1.4. Describe the shift from instructor-led to learner-directed education.		**2**
2.1.5. Explain the nature of learning and its relationship to emerging pedagogies.		**2**
2.1.6. Compare theories and philosophies of education and training impacting learners with exceptionalities.		**3**

2.1.7.	Incorporate changing and emerging educational philosophies into the learning environment.	4
2.1.8.	Explain social development theories and their implications for education and training practices.	3
2.1.9.	Describe the development of modern education and training.	2
2.1.10.	Explain the impact of education and training on society.	2
2.1.11.	Describe the relationships between social stratification and educational equity and their impact on learning and achievement gaps.	2
2.1.12.	Explain the impact of economic, social and technological changes on education and training.	2
2.1.13.	Explain the evolving knowledge base of educational research and theory that guides practice.	2
2.1.14.	Apply educational research findings to improve learner performance.	4

	Level 1:	0
Outcome 2.1. DOK Frequency	Level 2:	10
	Level 3:	2
	Level 4:	2

Outcome 2.2. Education Systems: Understand the organization and structure of education systems, the roles of their stakeholders and the nature of their funding sources to enhance students' contribution and role in education.		
2.2.1.	Explain the goals of education and their role in shaping the education system.	2
2.2.2.	Describe the environments in which education and training are delivered.	1
2.2.3.	Distinguish among federal, state and locally mandated policies, rules and regulations.	2
2.2.4.	Describe the organizational hierarchy in education and training systems.	2
2.2.5.	Describe the role and responsibilities of state and federal education agencies.	2
2.2.6.	Explain learners' and stakeholders' roles, rights and responsibilities in educational systems.	2
2.2.7.	Identify how decisions are made in education systems.	2
2.2.8.	Determine the change process and change forces in education systems.	4
2.2.9.	Describe barriers to and impact of systemic change in education systems.	2
2.2.10.	Describe funding sources and levels of contribution to the education system.	2
2.2.11.	Explain financial accountability of education systems and their stakeholders.	2
2.2.12.	Describe accreditation requirements of education systems.	2
2.2.13.	Analyze the community's shifting demographics, and recommend ways that the education system can respond.	4

	Level 1:	1
Outcome 2.2. DOK Frequency	Level 2:	10
	Level 3:	0
	Level 4:	2

Outcome 2.3. Professionalism: Model behaviors of professional educators, maintain needed licenses or certifications, and advance needed skills to exhibit a desire to contribute to professional growth and development.		
2.3.1.	Compare and contrast professional development processes guiding the preparation of educators.	2
2.3.2.	Identify processes used to integrate new teachers into an educational institution's culture.	1

2.3.3.	Target and actively participate in relevant professional development opportunities that foster growth.		**3**
2.3.4.	Utilize advocacy skills that can be used to shape educational policies and regulations.		**3**
2.3.5.	Adhere to the legal and ethical framework of the teaching profession, and explain the consequences of failing to do so.		**3**
2.3.6.	Explain the relationship between educational negligence and liability, and describe protections against liability.		**2**
2.3.7.	Engage in reflective practices to strengthen education and training knowledge and skills.		**4**
2.3.8.	Seek and use feedback and input from peers and administrators to foster professional growth.		**3**
2.3.9.	Create, implement, and evaluate personal action plan for performance improvement.		**4**
2.3.10.	Promote active and informed citizenship.		**3**
2.3.11.	Assess and address personal biases that potentially impact stakeholder interactions.		**4**
2.3.12.	Determine requirements for being an Ohio educator, and explain reasons those requirements change.		**2**
2.3.13.	Develop a professional development plan for lifelong learning.		**4**
2.3.14.	Develop a personal philosophy of education.		**4**
2.3.15.	Create and maintain a professional portfolio.		**4**
Outcome 2.3. DOK Frequency		**Level 1:**	**1**
		Level 2:	**3**
		Level 3:	**5**
		Level 4:	**6**
Outcome 2.4. Operational Responsibilities: Recognize and fulfill the day-to-day tasks that support teaching and learning.			
2.4.1.	Identify operational responsibilities of educators and trainers.		**2**
2.4.2.	Complete and maintain up-to-date records (e.g., incident reports, gradebooks, immunization records).		**3**
2.4.3.	Identify and document mastery of standards.		**3**
2.4.4.	Maintain up-to-date financial records.		**3**
2.4.5.	Determine the nature of needed documentation and paperwork, and complete them according to protocol.		**3**
2.4.6.	Select and maintain classroom equipment and supplies.		**3**
2.4.7.	Develop a community resource file for use in planning instructional activities.		**3**
Outcome 2.4. DOK Frequency		**Level 1:**	**0**
		Level 2:	**1**
		Level 3:	**6**
		Level 4:	**0**
Outcome 2.5. Human Resource Management: Facilitate an integrated approach to human resource management that enhances recruitment, selection, and retention of a high-performing workforce.			
2.5.1.	Describe staff rights and evolving roles in educational settings.		**2**
2.5.2.	Identify sources that can be used to determine available positions in education or training.		**2**
2.5.3.	Describe evaluation methods and procedures used with professionals in education and training.		**2**

2.5.4.	Identify how to access information about educator or trainer benefit packages.	**2**
2.5.5.	Explain the nature and impact of organized labor on education or training staff and administrators.	**2**
2.5.6.	Analyze job descriptions to determine roles and responsibilities.	**3**
2.5.7.	Identify procedures followed by educational agencies when dismissing employees.	**2**

Outcome 2.5. DOK Frequency	**Level 1:**	**0**
	Level 2:	**6**
	Level 3:	**1**
	Level 4:	**0**

Strand 3. Learners and Their Development: Students apply basic physical, cognitive and social development theories to enable learners to thrive in the learning environment.

Outcome 3.1. Growth and Development Theories: Apply the theoretical foundations of human growth and development that can enhance work with learners.

3.1.1.	Describe the interdependence of the developmental domains (e.g., social, emotional, cognitive, language, sensory, creative, physical, adaptive).	**2**
3.1.2.	Explain developmental stages and milestones.	**2**
3.1.3.	Explain growth and development theories (e.g., Piaget's stages of cognitive development, Erickson's theory of human development, Kohlberg's stages of moral development).	**2**
3.1.4.	Apply development theories to different ages and stages of learner development.	**3**
3.1.5.	Develop holistic view of learners through the application of growth and development theories.	**4**

Outcome 3.1. DOK Frequency	**Level 1:**	**0**
	Level 2:	**3**
	Level 3:	**1**
	Level 4:	**1**

Outcome 3.2. Cognitive Growth and Development: Apply cognitive growth and development principles to develop a holistic picture of a learner.

3.2.1.	Describe how learning processes occur neurologically.	**2**
3.2.2.	Evaluate learners to determine their learning style.	**3**
3.2.3.	Explain sequences, stages and milestones of cognitive development.	**2**
3.2.4.	Describe issues associated with cognitive development and growth.	**2**
3.2.5.	Explain how interactions and the environment impact brain function, growth and development.	**2**
3.2.6.	Create opportunities for learners to explore their self-interests.	**4**
3.2.7.	Observe, analyze, and determine a learner's cognitive growth and development.	**4**
3.2.8.	Align instructional strategies and interventions to learners' stages of cognitive development and learning.	**4**

Outcome 3.2. DOK Frequency	**Level 1:**	**0**
	Level 2:	**4**
	Level 3:	**1**
	Level 4:	**3**

Outcome 3.3. Physical Growth and Development: Apply physical growth and development principles to develop a holistic picture of a learner.

3.3.1.	Describe the milestones of physical growth and development.	**2**

3.3.2.	Determine learners' physical development stages and milestones.	3
3.3.3.	Analyze strategies to support learners' physical growth and development.	3
3.3.4.	Implement activities and strategies that can be used to promote motor-skill development.	3
3.3.5.	Allocate time for structured and unstructured physical activity based on age band.	3
3.3.6.	Organize structured activities to promote learners' health.	3
3.3.7.	Align strategies to learners' stages of physical development.	4

	Level 1:	0
Outcome 3.3. DOK Frequency	Level 2:	1
	Level 3:	5
	Level 4:	1

Outcome 3.4. Social and Emotional Growth and Development: Apply social and emotional growth and development principles to develop a holistic picture of a learner.

3.4.1.	Identify learner characteristics and differences, and explain how they impact learning.	2
3.4.2.	Explain genetic and environmental conditions that affect social growth and development.	2
3.4.3.	Identify how attachment impacts relationships.	2
3.4.4.	Identify factors impacting learners' self-regulation.	2
3.4.5.	Describe how caring, consistent relationships with adults provide external supports.	2
3.4.6.	Implement strategies to ease separation anxiety.	3
3.4.7.	Use strategies to help learners express their emotions.	3
3.4.8.	Incorporate strategies that support social and emotional growth.	3
3.4.9.	Explain how play provides opportunity for learners to grow and develop.	2
3.4.10.	Model self-control for learners.	3
3.4.11.	Apply behavioral-management techniques to advance learners' social and emotional growth.	3
3.4.12.	Use communication techniques that promote social growth and development.	3

	Level 1:	0
Outcome 3.4. DOK Frequency	Level 2:	6
	Level 3:	6
	Level 4:	0

Outcome 3.5. Language Growth and Development: Apply linguistic principles and practices in the development of language skills.

3.5.1.	Explain the interrelationships of language development with cognitive, physical and social/emotional development.	2
3.5.2.	Explain how language is developed.	2
3.5.3.	Describe the importance of listening, conversing and gesturing as foundations for learning languages or multiple languages.	2
3.5.4.	Identify the relationship between oral language development and reading.	2
3.5.5.	Explain the purposes for which learners use oral language.	2
3.5.6.	Describe the significance of learners' self-talk.	2
3.5.7.	Use the technique of recasting to support a learner's language skills and development.	3
3.5.8.	Explain stages of English acquisition for multi-language learners.	2

3.5.9.	Explain the relationship of the home language in promoting development of English language and literacy.	2
3.5.10.	Identify the home-language environment of each learner.	3
3.5.11.	Determine stage of a learner's English language development sequence.	3
3.5.12.	Demonstrate purposeful, intentional use of language that encourages conversation.	3
3.5.13.	Apply techniques to respond to code switching.	3
3.5.14.	Use code switching as a teaching strategy.	3
3.5.15.	Model correct use of language (e.g., structures, grammar, tone, volume, expression).	3
3.5.16.	Collaborate with families to set language learning goals for their learners.	3
3.5.17.	Promote development of home language while facilitating English language acquisition.	3
3.5.18.	Determine staff supports needed to assess and individualize instruction for multi-language learners.	3

Outcome 3.5. DOK Frequency	**Level 1:**	0
	Level 2:	8
	Level 3:	10
	Level 4:	0

Outcome 3.6. Literacy Development: Apply strategies to determine a learner's stage of literacy development, and implement needed supports to facilitate literacy growth.

3.6.1.	Explain the interaction of reading, writing, speaking and listening in literacy development.	2
3.6.2.	Describe factors impacting a learner's preparation to read.	2
3.6.3.	Describe stages of literacy development.	1
3.6.4.	Explain factors impacting the progression of the learner through the stages of reading development.	2
3.6.5.	Describe how content areas support literacy development.	2
3.6.6.	Identify characteristics of proficient readers.	1
3.6.7.	Identify the knowledge and skills that learners need to read with comprehension and fluency.	2
3.6.8.	Analyze a learner's writing samples to determine literacy growth and development.	3
3.6.9.	Evaluate a learner's reading readiness through classroom observation and assessment.	3

Outcome 3.6. DOK Frequency	**Level 1:**	2
	Level 2:	5
	Level 3:	2
	Level 4:	0

Outcome 3.7. Cultural Growth and Development: Determine the impact of culture on learner development and behaviors to guide interactions, curriculum decisions, resource selections and instructional planning and delivery.

3.7.1.	Explain the growth and development of a person's culture.	2
3.7.2.	Describe the role of cultural and environmental influences on a learner's development.	2
3.7.3.	Describe the impact of culture on adults' behavior with learners.	2
3.7.4.	Acquire unbiased information about cultural groups in the community.	2
3.7.5.	Obtain information about a learner's culture.	2

3.7.6.	Implement strategies and techniques that encourage self-esteem and responsibility in learners.	3
3.7.7.	Determine personal contributions to working with culturally diverse communities and learners by reflecting on one's own personal culture.	4
3.7.8.	Address cultural relevance in making curriculum choices and adaptations.	3
3.7.9.	Establish goals for multilingualism, multi-literacy and multiculturalism.	3

		Level 1:	0
Outcome 3.7. DOK Frequency		Level 2:	5
		Level 3:	3
		Level 4:	1

Outcome 3.8. Learner Characteristics: Select educational services aligned to learner characteristics.		
3.8.1.	Identify a learner's interests, abilities and developmental progress.	4
3.8.2.	Compare the relationship between academic achievement and a learner's physical, emotional and mental health.	2
3.8.3.	Identify types of accommodations and modifications that support learners' social, emotional, cognitive and physical growth.	4
3.8.4.	Identify exceptional learners based on established criteria and provide aligned services as needed.	3
3.8.5.	Identify multi-language learners to determine needed support services.	3
3.8.6.	Compare the purposes, value and uses of Individualized Family Service Plans (IFSPs), Individualized Education Programs (IEPs), and Section 504 Plans and Curriculum Accommodation Plans (DCAPs).	2
3.8.7.	Identify the processes and procedures for writing a plan for intervention services.	2

		Level 1:	0
Outcome 3.8. DOK Frequency		Level 2:	3
		Level 3:	2
		Level 4:	2

Strand 4. Learning Environment: Students apply principles of safe, healthy, productive and respectful learning environments to promote positive interactions, active engagement in learning and stakeholder collaboration.		
Outcome 4.1. Safe Environments: Establish and maintain a physically and emotionally safe environment for learners, staff, administrators and volunteers.		
4.1.1.	Ensure a safe learning environment.	4
4.1.2.	Follow established first aid and CPR protocols for addressing medical emergencies.	3
4.1.3.	Develop and follow emergency action plans.	4
4.1.4.	Design, maintain, and modify the classroom layout to create a safe environment.	4
4.1.5.	Identify staff or agencies needed to resolve safety issues or violations.	1
4.1.6.	Identify the signs, symptoms and impact of physical and mental abuse; and adhere to reporting protocol.	3
4.1.7.	Recognize signs of drug or alcohol abuse, and adhere to reporting protocol.	3
4.1.8.	Identify resources, organizations and agencies committed to assisting victims of physical and/or mental abuse.	2
4.1.9.	Identify restraint-training techniques and the impact of initiating them.	2
4.1.10.	Identify foods and objects that may cause choking in learners.	1

	Level 1:	2
Outcome 4.1. DOK Frequency	Level 2:	2
	Level 3:	3
	Level 4:	3

Outcome 4.2. Healthy Environments: Establish, implement, and monitor practices and conditions to promote health.

4.2.1.	Model appropriate cleanliness and hygiene practices.	2
4.2.2.	Maintain a sanitary environment by following appropriate policies and procedures.	2
4.2.3.	Update and maintain health records according to protocol.	3
4.2.4.	Identify signs and symptoms of common childhood health issues and diseases.	2
4.2.5.	Follow established protocols for monitoring and reporting suspected cases of distress or communicable diseases.	2
4.2.6.	Implement procedures for administering physician's orders or parent instructions when treating a learner with a medical condition.	3
4.2.7.	Integrate activities that promote healthy, active living.	3
4.2.8.	Collaborate with families to establish strategies for healthy lifestyles.	3

	Level 1:	0
Outcome 4.2. DOK Frequency	Level 2:	4
	Level 3:	4
	Level 4:	0

Outcome 4.3. Nutrition: Establish and implement activities related to proper nutrition.

4.3.1.	Identify the role that nutrition plays in growth and development.	1
4.3.2.	Determine appropriate dietary guidelines for healthy meals or snacks.	3
4.3.3.	Identify nutritional needs of learners based on age and stage of development.	2
4.3.4.	Describe the effects of nutrients on health, appearance and peak performance.	2
4.3.5.	Identify barriers that prevent learners from obtaining proper nutrition.	2
4.3.6.	Implement strategies that promote healthy eating habits.	3
4.3.7.	Identify and adhere to special dietary needs of learners.	3
4.3.8.	Identify strategies to broaden learners' food experiences.	3
4.3.9.	Develop menus for healthy meals and snacks.	3
4.3.10.	Explain the importance of social interaction for learners during snack and mealtimes.	2
4.3.11.	Document and report food-related concerns or incidents to a learner's family.	3

	Level 1:	1
Outcome 4.3. DOK Frequency	Level 2:	4
	Level 3:	6
	Level 4:	0

Outcome 4.4. Environmental Design: Create and maintain an environment to promote learning, encourage interaction and facilitate classroom management.

4.4.1.	Compare the effectiveness of different learning environments.	2
4.4.2.	Analyze the impact of environmental factors on the learning environment.	4
4.4.3.	Create a learning environment that fosters collaborative and individual work.	4
4.4.4.	Incorporate learning areas in classroom design to provide learners space to	4

	build, create and engage in self-expression.	
4.4.5.	Maintain and modify the learning environment to accommodate performance and behavior.	3
4.4.6.	Create an inclusive learning environment by implementing Universal Design principles and guidelines.	4
4.4.7.	Create learning and literacy centers to enable learners to work independently and in small groups.	4
4.4.8.	Design the physical learning environment to address learner needs and abilities.	4

	Level 1:	0
Outcome 4.4. DOK Frequency	Level 2:	1
	Level 3:	1
	Level 4:	6

Outcome 4.5. Classroom Management: Establish and maintain a productive and respectful learning environment.		
4.5.1.	Describe the benefits of a globally based learning environment.	2
4.5.2.	Distinguish between individual and group diversity.	2
4.5.3.	Identify the impact of diversity on the learning environment.	2
4.5.4.	Demonstrate cultural awareness.	3
4.5.5.	Model respect for individuals' or groups' culturally unique factors.	3
4.5.6.	Develop rapport with learners.	4
4.5.7.	Interact with learners in responsive, consistent, encouraging and supportive ways.	3
4.5.8.	Use positive guidance techniques.	3
4.5.9.	Create a supportive and inclusive learning environment that promotes positive interactions and behaviors to minimize risks.	4
4.5.10.	Set and communicate high and attainable expectations for all learners.	3
4.5.11.	Establish and follow classroom routines.	3
4.5.12.	Determine the impact of diversity in an education and training setting (e.g., linguistics, intellectual abilities, beliefs and values).	3
4.5.13.	Create a culturally compatible learning environment.	4

	Level 1:	0
Outcome 4.5. DOK Frequency	Level 2:	3
	Level 3:	7
	Level 4:	3

Outcome 4.6. Stakeholder Relationships: Establish and maintain productive relationships with family members, caregivers and community partners.		
4.6.1.	Describe the advantages and importance of family or caregiver involvement in learner development.	2
4.6.2.	Identify and implement techniques to constructively and supportively communicate with families or caregivers.	3
4.6.3.	Plan, facilitate, and document parent-teacher conferences.	4
4.6.4.	Use family engagement strategies to partner with families in making decisions.	4
4.6.5.	Collaborate with families to enhance support provided to the learner.	4
4.6.6.	Communicate reading strategies to families to help them engage learner's literacy interests.	3
4.6.7.	Involve family or caregiver in resolving a learner's conflicts or issues.	4
4.6.8.	Assist families or caregivers in addressing challenging learner behaviors outside	4

	the learning environment.	
4.6.9.	Explain the role and value of external support agencies in education.	**2**
4.6.10.	Collaborate with stakeholders and intervention team to meet requirements of learners.	**2**
4.6.11.	Explain ways in which community members can contribute to learning experiences.	**2**
4.6.12.	Establish and grow positive relationships with community partners.	**3**
4.6.13.	Engage community partners in developing learning opportunities.	**3**

	Level 1:	**0**
Outcome 4.6. DOK Frequency	**Level 2:**	**4**
	Level 3:	**4**
	Level 4:	**5**

Outcome 4.7. Classroom Management: Manage classroom behavior to create an environment conducive to learning.

4.7.1.	Identify the importance of learner self-regulation as related to classroom management.	**2**
4.7.2.	Recognize reasons that learners exhibit inappropriate behavior, and recommend and implement intervention strategies.	**3**
4.7.3.	Communicate and monitor classroom expectations.	**3**
4.7.4.	Apply classroom-management techniques to monitor learner engagement.	**4**
4.7.5.	Respond to and redirect learner behavior.	**3**
4.7.6.	Implement techniques to foster positive learner behavior.	**3**
4.7.7.	Implement strategies to encourage learners to comply with classroom rules and procedures.	**3**
4.7.8.	Identify ways that cultural perspectives can impact conflicts.	**2**
4.7.9.	Determine when to involve stakeholders in conflict-resolution activities.	**3**
4.7.10.	Involve learners in development of behavioral standards for the learning environment.	**3**
4.7.11.	Differentiate instructional strategies to keep all learners engaged.	**4**

	Level 1:	**0**
Outcome 4.7. DOK Frequency	**Level 2:**	**2**
	Level 3:	**7**
	Level 4:	**2**

Strand 5. Curriculum and Instruction: Students apply developmentally and intellectually appropriate pedagogies to develop curriculum and implement instructional strategies that promote the physical, cognitive and emotional development of learners.

Outcome 5.1. Curriculum Planning: Develop curriculum that ensures learners receive integrated, coherent learning experiences.

5.1.1.	Identify school, district and state curriculum priorities.	**2**
5.1.2.	Solicit and use stakeholder input into curriculum planning.	**3**
5.1.3.	Develop curriculum map through collaboration with colleagues.	**4**
5.1.4.	Assess learners' prior level of understanding.	**3**
5.1.5.	Create instructional calendar to schedule curriculum topics and planned assessments.	**3**
5.1.6.	Write objectives aligned to desired learning outcome.	**3**
5.1.7.	Align curriculum to state and national standards.	**4**
5.1.8.	Integrate standards across the curriculum.	**4**

5.1.9.	Integrate employability skills into the curriculum and activities.		4
5.1.10.	Identify factors to evaluate in determining mastery of content.		4
Outcome 5.1. DOK Frequency		**Level 1:**	0
		Level 2:	1
		Level 3:	4
		Level 4:	5
Outcome 5.2. Instructional Planning: Plan instructional strategies and activities to promote learner development.			
5.2.1.	Incorporate relevant, real-life experiences into lessons.		3
5.2.2.	Evaluate game-based learning and gamification.		2
5.2.3.	Describe types of learning styles and their influence on instruction.		2
5.2.4.	Use multiple strategies within a lesson to support differentiated instruction.		4
5.2.5.	Create instructional plans.		4
5.2.6.	Determine time required for implementation of instructional activities.		3
5.2.7.	Plan developmentally appropriate learning experiences that engage learners in individual and collaborative learning activities.		4
5.2.8.	Integrate language and literacy into all classroom activities.		4
5.2.9.	Incorporate instructional scaffolding.		4
5.2.10.	Use reflection strategies for evaluating the effectiveness of a lesson.		3
5.2.11.	Select reflection strategies for learner implementation.		3
5.2.12.	Determine adjustments to instructional plan based on learners' growth, development and understanding.		4
5.2.13.	Incorporate evaluation strategies that measure a lesson's learning outcomes.		4
Outcome 5.2. DOK Frequency		**Level 1:**	0
		Level 2:	2
		Level 3:	4
		Level 4:	7
Outcome 5.3. Resources: Select, prepare, and utilize resources; and provide opportunities to promote learner development and advancement.			
5.3.1.	Determine resources needed to support identified learning objectives.		3
5.3.2.	Select materials that extend or reinforce learning and comprehension.		3
5.3.3.	Utilize resources that facilitate the global learning process.		3
5.3.4.	Select and implement learning materials and experiences that provide a multicultural perspective.		4
5.3.5.	Determine opportunities for involving stakeholders in learners' activities.		3
5.3.6.	Prepare and engage stakeholders for participation in learning experiences with learners.		3
5.3.7.	Identify technology resources to support the needs of learners.		2
5.3.8.	Engage learners in community activities that extend classroom curriculum.		4
5.3.9.	Implement intra-curricular activities that can be used to extend or reinforce learning.		3

5.3.10.	Create opportunities that support learner growth and development through extra-curricular activities.		4
5.3.11.	Identify opportunities available for learners to acquire postsecondary credit.		2
		Level 1:	0
		Level 2:	2
	Outcome 5.3. DOK Frequency	**Level 3:**	6
		Level 4:	3
Outcome 5.4. Instructional Implementation: Implement instructional strategies and methods to meet the needs of all learners.			
5.4.1.	Determine advantages and disadvantages of instructional strategies and methods.		2
5.4.2.	Use theories and research-based principles of learning to deliver effective instruction.		4
5.4.3.	Use techniques to develop learner interest in lessons.		3
5.4.4.	Implement pacing and time-management techniques to ensure achievement of lesson's outcomes.		3
5.4.5.	Review performance criteria with learners to clarify their understanding of desired outcomes		2
5.4.6.	Implement current and emerging technology to deliver instruction.		3
5.4.7.	Utilize questioning techniques to determine, clarify or extend learner understanding.		3
5.4.8.	Contextualize concepts and examples to facilitate learner understanding.		3
5.4.9.	Scaffold new ideas to learners' existing knowledge.		3
5.4.10.	Provide clear and specific directions and feedback to learners.		2
5.4.11.	Anticipate and clarify learner misconceptions.		3
5.4.12.	Implement and adjust instructional plan to accommodate learner needs or unforeseen circumstances.		4
5.4.13.	Apply grouping strategies to support instructional activities.		3
5.4.14.	Implement strategies to overcome language barriers between instructor and learner.		3
5.4.15.	Implement developmentally appropriate instructional activities that support differentiated learning.		3
5.4.16.	Implement learner reflection strategies to extend and enhance learning.		3
		Level 1:	0
	Outcome 5.4. DOK Frequency	**Level 2:**	3
		Level 3:	11
		Level 4:	2
Outcome 5.5. Foundations of Teaching Literacy: Examine the foundational principles of literacy to enhance instruction.			
5.5.1.	Explain the importance of early reading success to lifelong learning.		1
5.5.2.	Recognize the purposes of phonemic awareness, phonics and word study in instruction.		1
5.5.3.	Identify the benefits of using segmenting, blending and manipulating sounds in teaching phonemic awareness.		2
5.5.4.	Identify instructional approaches used to teach reading and writing.		2
5.5.5.	Identify instructional strategies used to teach reading.		2

5.5.6.	Identify factors to consider in the selection of texts for readers.	2
5.5.7.	Compare the use of traditional reading groups and guided reading groups.	3
5.5.8.	Compare independent reading with silent-sustained reading.	2
5.5.9.	Explain reading comprehension strategies used by the learner.	2
5.5.10.	Describe features and types of factual and fictional texts.	2
5.5.11.	Describe the characteristics, purposes and examples of graphic organizers.	2
5.5.12.	Identify oral language activities appropriate for specific instructional strategies.	3

Outcome 5.5. DOK Frequency	Level 1:	2
	Level 2:	8
	Level 3:	2
	Level 4:	0

Outcome 5.6. Literacy Instruction: Implement instructional strategies and methods to develop learners' reading, writing, listening and speaking skills.		
5.6.1.	Collaborate with learners to establish reading goals and expectations.	3
5.6.2.	Plan and implement strategies to promote phonemic awareness, phonics and word study.	3
5.6.3.	Implement activities to encourage readers to respond to texts.	3
5.6.4.	Implement activities for learners to identify similarities and differences in the structure of texts, sentences, words and letters.	3
5.6.5.	Develop and implement reading activities that activate and extend a learner's background knowledge.	3
5.6.6.	Implement reading comprehension strategies.	3
5.6.7.	Select and implement instructional methods to enhance learners' reading comprehension.	3
5.6.8.	Model how to decode words.	2
5.6.9.	Implement strategies to enable learners to build their vocabulary in the context of reading.	3
5.6.10.	Model reading strategies for learners to utilize for challenging words.	2
5.6.11.	Plan and conduct read-alouds.	2
5.6.12.	Conduct shared readings.	2
5.6.13.	Use prompts questions and cues to encourage readers to figure out difficult words and texts.	2
5.6.14.	Plan and conduct guided reading lessons.	2
5.6.15.	Plan, conduct, and monitor independent reading.	2
5.6.16.	Utilize techniques that help to develop prewriting skills.	3
5.6.17.	Implement writing activities to use for reading instruction.	3
5.6.18.	Implement scaffolding strategies to expand language and writing experiences based on children's interests.	4
5.6.19.	Provide support to readers in their zone of proximal development.	3
5.6.20.	Assist learners in developing non-verbal cues and listening skills.	2
5.6.21.	Promote learner-to-learner and learner-to-adult conversations.	2

Outcome 5.6. DOK Frequency	Level 1:	0
	Level 2:	9
	Level 3:	11
	Level 4:	1

Strand 6. Technology and Online Instruction: Students apply technology in the learning environment and use developmentally and intellectually appropriate pedagogies to design and implement online instructional materials and strategies that promote learners' growth and development.	
Outcome 6.1. Technology for the Learning Environment: Understand tools and applications that provide the basis for the use of technology in the learning environment.	
6.1.1. Identify the capabilities of technology.	3
6.1.2. Explain technology concepts that emphasize user-generated content used in learning environments.	2
6.1.3. Engage in continuous learning in relation to current and emerging technologies used in the learning environment.	4
6.1.4. Engage colleagues, learners and stakeholders in educational networking sites.	3
6.1.5. Compare and contrast the use of social media for personal and educational purposes.	2
6.1.6. Follow established protocol and practices necessary to maintain professional identity and reputation while using social media and educational networking sites.	3
6.1.7. Assist learners in understanding short and long-term impacts of digital footprints.	3
6.1.8. Develop and maintain an online personal learning network.	3
6.1.9. Assist learners in using educational networking tools to communicate and problem-solve.	4
6.1.10. Collaborate with learners and stakeholders to address technology gaps.	4

	Level 1:	0
Outcome 6.1. DOK Frequency	Level 2:	2
	Level 3:	5
	Level 4:	3

Outcome 6.2. Blended and Online Learning Foundations: Apply principles and concepts of online learning to course design and implementation.	
6.2.1. Compare online learning versus traditional learning environments.	2
6.2.2. Describe types of online learning.	1
6.2.3. Describe components of effective online learning.	2
6.2.4. Describe issues associated with accessibility and inclusivity in online learning.	2
6.2.5. Explain issues associated with copyrights and property norms in online learning.	2
6.2.6. Describe how online learning can be used to promote higher-order thinking skills.	2
6.2.7. Describe the implications of behavioral, cognitive and constructivist perspectives for online learning.	2
6.2.8. Describe influences that affect the design of online learning activities.	2
6.2.9. Analyze trends in online instructional design and implementation.	3
6.2.10. Compare the interrelationships of distant, blended and online learning platforms.	2

	Level 1:	1
Outcome 6.2. DOK Frequency	Level 2:	8
	Level 3:	1
	Level 4:	0

Outcome 6.3. Online Instructional Design: Design online courses or materials to deliver curriculum.		
6.3.1.	Use online design principles to identify course materials suited for a blended learning environment.	**3**
6.3.2.	Select background colors and fonts that contribute to readability.	**3**
6.3.3.	Determine capabilities of available learning management system.	**3**
6.3.4.	Design online course navigation.	**3**
6.3.5.	Develop introductory material and syllabus for online course.	**4**
6.3.6.	Structure content in learning management system.	**3**
6.3.7.	Use multimedia tools and online learning management system to enrich blended and online learning opportunities.	**4**
6.3.8.	Design and sequence planned online learning interactions.	**4**
6.3.9.	Apply interactive capabilities of online learning management system.	**3**
6.3.10.	Prepare resources that can be used to support learners' learning styles.	**4**
6.3.11.	Construct online learning content, activities and assessments utilizing Universal Design principles.	**4**
6.3.12.	Incorporate online tools that facilitate teacher-to-learner and learner-to-learner communication.	**3**
6.3.13.	Integrate digital literacy strategies into the curriculum.	**4**
6.3.14.	Incorporate formal and informal course and curriculum feedback methods for learners and stakeholders.	**4**

Outcome 6.3. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**7**
	Level 4:	**7**

Outcome 6.4. Online Implementation: Implement online instructional strategies and methods to meet targeted goals.		
6.4.1.	Orient learners to online platform and course processes and procedures.	**3**
6.4.2.	Instruct learners on providing online peer-to-peer feedback.	**3**
6.4.3.	Implement instructional methods and electronic media to support standards-based lessons.	**4**
6.4.4.	Interact with online learners through regular postings.	**3**
6.4.5.	Implement engagement techniques for online instruction.	**3**
6.4.6.	Monitor and respond to learner feedback and questions.	**3**
6.4.7.	Address technical challenges and issues encountered.	**4**
6.4.8.	Foster collaboration through online community platforms.	**4**

Outcome 6.4. DOK Frequency	**Level 1:**	**0**
	Level 2:	**0**
	Level 3:	**5**
	Level 4:	**3**

Strand 7. Observation and Assessment Foundations: Students create and administer observations and diagnostic, formative and summative assessments and use the resulting data to modify and improve instruction, to determine needed remediation and to adjust future observations and assessments.	
Outcome 7.1. Observation and Assessment Foundations: Describe the value and need for observation and assessment in the education process.	

7.1.1.	Compare the purpose, value and use of formal and informal observation.	2
7.1.2.	Describe the impact of observation findings on curriculum and needed environmental changes.	2
7.1.3.	Explain the purposes and impact of assessment.	2
7.1.4.	Explain how assessments can be used as an effective medium for communications between the instructor and the learner.	2
7.1.5.	Distinguish among formative, summative and diagnostic assessment.	1
7.1.6.	Distinguish between norm-referenced and criterion-referenced assessments.	2
7.1.7.	Describe the need to provide immediate and frequent feedback to learners.	2
7.1.8.	Explain the potential use of adaptive technologies in assessment.	2
7.1.9.	Describe the use and value of mastery learning techniques.	2
7.1.10.	Identify interventions often used to assist learners with testing.	2

	Level 1:	1
Outcome 7.1. DOK Frequency	Level 2:	9
	Level 3:	0
	Level 4:	0

Outcome 7.2. Observation: Administer formal observations to evaluate learners' growth and development progress and to diagnose problems.		
7.2.1.	Identify procedures and best practices for administering formal observations.	2
7.2.2.	Select tools for recording and categorizing learner progress.	2
7.2.3.	Screen learners overall health status, developmental strengths and weaknesses.	3
7.2.4.	Analyze learner's nonverbal behaviors and rely on behavioral cues to see what a learner knows and can do.	4
7.2.5.	Identify the development of learners' receptive and expressive language skills by regularly and systematically observing learners in various contexts.	4
7.2.6.	Maintain observational and anecdotal records to monitor learners' development.	2
7.2.7.	Use observation records to identify patterns, trends and conclusions about individuals and groups of learners.	4
7.2.8.	Use formal observation to develop a holistic picture of the learner.	4
7.2.9.	Use observation to scaffold learning for individual learners.	4
7.2.10.	Prepare formal and informal learner observations that are objective and factual.	4
7.2.11.	Assess development of learners' literacy capabilities.	3
7.2.12.	Identify reading concerns, and implement interventions.	3
7.2.13.	Create a developmental plan for the learner.	4
7.2.14.	Utilize ongoing learner observation to recognize developmental goal attainment.	4
7.2.15.	Assess learners' readiness to transition.	3
7.2.16.	Use observations to align curricular activities.	4
7.2.17.	Communicate observation outcomes to stakeholders.	2

	Level 1:	0
Outcome 7.2. DOK Frequency	Level 2:	4
	Level 3:	4
	Level 4:	9

Outcome 7.3. Assessment: Develop and administer assessments to evaluate learner understanding and skill development.		
7.3.1.	Describe the characteristics, strengths, limitations and uses of assessment tools.	2

7.3.2.	Explain potential consequences of misusing or overusing assessment procedures.	2
7.3.3.	Align assessments with desired or mandated learning outcomes.	3
7.3.4.	Choose assessment methods appropriate for learning environment and instructional goal attainment.	3
7.3.5.	Identify required assessment and testing instruments.	2
7.3.6.	Develop selected-response test items and keys.	3
7.3.7.	Develop constructed-response test items and scoring guide.	3
7.3.8.	Distinguish between holistic and analytical rubrics.	1
7.3.9.	Develop performance scenarios and rubrics.	4
7.3.10.	Facilitate development of learners' portfolios.	3
7.3.11.	Prepare learners for the demands of specific assessment formats.	3
7.3.12.	Administer assessments.	3
7.3.13.	Use scoring guides and rubrics to score projects and essay questions.	4
7.3.14.	Create and use rubrics and rating scales to score performance assessments.	4
7.3.15.	Communicate assessment outcomes to stakeholders.	2
Outcome 7.3. DOK Frequency	**Level 1:**	1
	Level 2:	4
	Level 3:	7
	Level 4:	3
Outcome 7.4. Test Analysis: Evaluate quality and effectiveness of assessments.		
7.4.1.	Describe reasons learners respond incorrectly to test items.	2
7.4.2.	Determine test-item discrimination.	3
7.4.3.	Distinguish between validity and reliability.	2
7.4.4.	Explain types of validity.	2
7.4.5.	Determine test-item validity and reliability.	3
7.4.6.	Resolve issues or problems with test items.	4
7.4.7.	Interpret commonly reported scores on standardized tests.	3
7.4.8.	Interpret summary indexes often reported with assessment results.	3
7.4.9.	Determine patterns in assessment data for groups of learners.	4
Outcome 7.4. DOK Frequency	**Level 1:**	0
	Level 2:	3
	Level 3:	4
	Level 4:	2
Outcome 7.5. Data Applications: Apply data to improve curriculum and instruction and to foster learner growth and development.		
7.5.1.	Identify types and sources of data that can be used for educational improvement.	2
7.5.2.	Display data in visual representations to illustrate learning results.	2
7.5.3.	Describe ways that data can be used for educational improvement.	2
7.5.4.	Explain ways that data are used by administrators to drive educational performance.	2
7.5.5.	Explain the importance of considering measurement errors when making learner decisions.	2
7.5.6.	Determine and implement needed corrective measures based on test analysis.	4
7.5.7.	Construct and administer surveys to obtain curricular feedback.	3

7.5.8.	Analyze formal and informal feedback for curriculum evaluation purposes.		3
7.5.9	Interpret data to inform teaching responses and strategies.		4
7.5.10.	Interpret and use assessment data to motivate and enhance learner performance.		4
Outcome 7.5. DOK Frequency		**Level 1:**	0
		Level 2:	5
		Level 3:	2
		Level 4:	3