

## Elementary Education

Standard 1 – Development, Learning and Motivation	
Description	Indicators
<p>Candidates know, understand, and use the major concepts, principles, theories, and research related to development of children and young adolescents to construct learning opportunities that support individual students' development, acquisition of knowledge, and motivation.</p>	<p>Candidates for elementary teaching base their teaching and related professional responsibilities on a thorough understanding of developmental periods of childhood and early adolescence. In curriculum planning, instruction, and assessment of student learning, they:</p> <ul style="list-style-type: none"> <li>• consider, accommodate, and integrate the physical, social, emotional, cognitive, and linguistic developmental characteristics of children and young adolescents.</li> <li>• draw on developmental knowledge to plan curriculum that is achievable but also challenging for children at various developmental levels.</li> <li>• draw upon an in-depth knowledge of child and young adolescent development and learning to understand students' abilities, interests, individual aspirations, and values</li> <li>• adapt curriculum and teaching to motivate and support student learning and development.</li> <li>• understand that the ways in which cultures and social groups differ are important and affect learning.</li> <li>• recognize when an individual student's development differs from typical developmental patterns and collaborate with specialists to plan and implement appropriate learning experiences that address individual needs.</li> <li>• know that all children can learn when developmental factors are recognized, respected, and accommodated</li> <li>• demonstrate that knowledge in their practice</li> <li>• consider diversity an asset and respond positively to it.</li> </ul>

Standard 2 - Curriculum	
Description	Indicators
<p><b>Standard 2.1 Reading, Writing, and Oral Language</b>—Candidates demonstrate a high level of competence in use of English language arts and they know, understand, and use concepts from</p>	<p>Candidates are adept at teaching the fundamentals of the English Language Arts. They:</p> <ul style="list-style-type: none"> <li>• model effective use of English, including its syntax, lexicon, history, varieties, literature, and oral and written composing processes.</li> </ul>

reading, language and child development, to teach reading, writing, speaking, viewing, listening, and thinking skills and to help students successfully apply their developing skills to many different situations, materials, and ideas;

- understand how elementary children develop and learn to read, write, speak, view, and listen effectively
- use their knowledge and understanding of language, first and second language development, and the language arts to design instructional programs and strategies that build on students' experiences and existing language skills and result in their students becoming competent, effective users of language
- teach students to read competently and encourage students' enjoyment of reading through multiple instructional strategies, technologies, and a variety of language activities
- teach children to read with a balanced instructional program that includes an emphasis on use of letter/sound relationships (phonics), context (semantic and syntactic), and text that has meaning for students
- teach students a variety of strategies to monitor their own reading comprehension.
- are also familiar with, able to use, and recommend to students many reading materials based on different topics, themes, and a variety of situations and consisting of different types, including stories, poems, biography, non-fiction, many categories of literature written for children, and texts from various subject areas.
- encourage elementary students' understanding of their individual responses to what they read and sharing those responses
- help students think critically about what they read
- provide both instruction in and opportunities for elementary students to develop effective writing and speaking skills so that they can communicate their knowledge, ideas, understanding, insights, feelings, and experiences to other students and to parents, teachers, and other adults
- provide their students with many different writing and speaking experiences in order to teach the skills of writing and speaking
- enable students to explore the uses of different types of writing and speaking with different audiences and in different situations
- help students develop their capacities to listen so that they understand, consider, respond to, and discuss spoken material, including non-fiction, stories, and poems
- know what preconceptions, error patterns, and misconceptions they may expect to find in students' understanding of how language functions in communication, and they are able to help students correct their misunderstandings of the development and uses of language

	<ul style="list-style-type: none"> <li>• use formative and summative assessment to determine the level of students' competence in their understanding of and use of language.</li> <li>• use the results of such assessment to plan further instruction.</li> </ul>
<p><b>2.2 Science</b>—Candidates know, understand, and use fundamental concepts of physical, life, and earth/space sciences. Candidates can design and implement age-appropriate inquiry lessons to teach science, to build student understanding for personal and social applications, and to convey the nature of science;</p>	<p>Candidates have a broad general understanding of science and they teach elementary students the nature of science, and the content and fundamentals of physical, life, earth and space sciences, and their interrelationships. They:</p> <ul style="list-style-type: none"> <li>• are familiar with, and teach, the major concepts and principles that unify all scientific effort and that are used in each of the science disciplines: (1) systems, order, and organization; (2) evidence, models, and explanation; (3) change, constancy, and measurement; (4) evolution and equilibrium; and (5) form and function.</li> <li>• engage elementary students in the science inquiry process that involves asking questions, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, constructing and analyzing alternative explanations, and communicating scientific arguments and explanations.</li> <li>• introduce students to understandings about science and technology and to distinctions between natural objects and objects made by humans by creating experiences in making models of useful things, and by developing students' abilities to identify and communicate a problem, and to design, implement, and evaluate a solution.</li> <li>• know naive theories and misconceptions most children have about scientific and technological phenomena and help children build understanding.</li> <li>• understand the use of assessment through diverse data-collection methods as ways to inform their teaching and to help students learn scientific inquiry, scientific understanding of the natural world, and the nature and utility of science.</li> </ul>
<p><b>2.3 Mathematics</b>—Candidates know, understand, and use the major concepts and procedures that define number and operations, algebra, geometry, measurement, and data analysis and probability. In doing so they consistently engage problem solving, reasoning and proof,</p>	<p>Candidates are able to teach elementary students to explore, conjecture, and reason logically using various methods of proof; to solve non-routine problems; to communicate about and through mathematics by writing and orally using everyday language and mathematical language, including symbols; to represent mathematical situations and relationships; and to connect ideas within</p>

<p>communication, connections, and representation;</p>	<p>mathematics and between mathematics and other intellectual activity. They:</p> <ul style="list-style-type: none"> <li>• help students understand and use measurement systems (including time, money, temperature, two and three dimensional objects using non-standard and standard customary and metric units); explore pre-numeration concepts, whole numbers, fractions, decimals, percents and their relationships; apply the four basic operations (addition, subtraction, multiplication, and division) with symbols and variables to solve problems and to model, explain, and develop computational algorithms; use geometric concepts and relationships to describe and model mathematical ideas and real-world constructs; formulate questions, and collect, organize, represent, analyze, and interpret data by use of tables, graphs, and charts.</li> <li>• help elementary students identify and apply number sequences and proportional reasoning, predict outcomes and conduct experiments to test predictions in real-world situations; compute fluently; make estimations and check the reasonableness of results; select and use appropriate problem-solving tools, including mental arithmetic, pencil-and-paper computation, a variety of manipulative and visual materials, calculators, computers, electronic information resources, and a variety of other appropriate technologies to support the learning of mathematics.</li> <li>• know and are able to help students understand the history of mathematics and contributions of diverse cultures to that history.</li> <li>• know what mathematical preconceptions, misconceptions, and error patterns to look for in elementary student work as a basis to improve understanding and construct appropriate learning experiences and assessments.</li> </ul>
<p><b>2.4 Social studies</b>—Candidates know, understand, and use the major concepts and modes of inquiry from the social studies—the integrated study of history, geography, the social sciences, and other related areas—to promote elementary students’ abilities to make informed decisions as citizens of a culturally diverse democratic society and interdependent world;</p>	<p>The social studies include history, geography, the social sciences (such as anthropology, archaeology, economics, political science, psychology, and sociology) and other related areas (such as humanities, law, philosophy, religion, mathematics, science and technology). Candidates are able to:</p> <ul style="list-style-type: none"> <li>• use knowledge, skills, and dispositions from social studies to organize and provide integrated instruction in grades K-6 for the study of major themes, concepts and modes of inquiry drawn from academic fields that address: (1) culture; (2) time, continuity, and change; (3) people, places,</li> </ul>

	<p>and environment; (4) individual development and identity; (5) individuals, groups, and institutions; (6) power, governance, and authority; (7) production, distribution, and consumption; (8) science, technology, and society; (9) global connections; and (10) civic ideals and practices</p> <ul style="list-style-type: none"> <li>• use their knowledge of social studies to help students learn about academic fields of knowledge, as well as major themes that integrate knowledge across academic fields.</li> <li>• develop experiences to help elementary students learn about the historical development of democratic values; the basic principles of government and citizenship in a democratic republic; the past, present, and future; spatial relations; the development of nations, institutions, economic systems, culture, and cultural diversity; the influences of belief systems; and the humanities</li> <li>• help students read, write, listen, discuss, speak, and research to build background knowledge; examine a variety of sources (e.g., primary and secondary sources, maps, statistical data, and electronic technology-based information); acquire and manipulate data; analyze points of view; formulate well-supported oral and written arguments, policies, and positions; construct new knowledge and apply knowledge in new settings.</li> <li>• use formative and summative assessments in planning and implementing instruction.</li> </ul>
<p><b>2.5 The arts</b>—Candidates know, understand, and use—as appropriate to their own understanding and skills—the content, functions, and achievements of the performing arts (dance, music, theater) and the visual arts as primary media for communication, inquiry, and engagement among elementary students;</p>	<p>Candidates understand distinctions and connections between arts study and arts experiences. They:</p> <ul style="list-style-type: none"> <li>• recognize that arts instruction must be sequential</li> <li>• encourage the kind of study and active participation that leads to competence and appreciation</li> <li>• work alone, with arts specialist teachers, and/or with other qualified arts professionals enabling students: <ol style="list-style-type: none"> <li>1. to communicate at a basic level in the four arts disciplines--dance, music, theater, and the visual arts-- including knowledge and skills in the use of basic vocabularies, materials, traditional and technology-based tools, techniques, and thinking processes of each arts discipline;</li> <li>2. to develop and present basic analyses of works of art from structural, historical, and cultural perspectives;</li> <li>3. to have an informed acquaintance with exemplary works of art from a variety of cultures and historical periods; and</li> </ol> </li> </ul>

	<p>4. to relate basic types of arts knowledge and skills within and across the arts disciplines, and to make connections with other disciplines.</p> <ul style="list-style-type: none"> <li>• understand that student competence at a basic level serves as the foundation for more advanced work.</li> <li>• understand that there are many routes to competence, that elementary students may work in different arts at different times, that their study may take a variety of approaches, and that their abilities may develop at different rates.</li> </ul>
<p><b>2.6 Health education</b>—Candidates know, understand, and use the major concepts in the subject matter of health education to create opportunities for student development and practice of skills that contribute to good health;</p>	<p>Candidates understand the foundations of good health, including the structure and function of the body and its systems and the importance of physical fitness and sound nutrition. They:</p> <ul style="list-style-type: none"> <li>• help students understand the benefits of a healthy lifestyle for themselves and others as well as the dangers of diseases and activities that may contribute to disease</li> <li>• are alert to major health issues concerning children and the social forces that affect them, and of the need to impart information on these issues sensitively</li> <li>• address issues in ways that help students recognize potentially dangerous situations, clarify misconceptions, and find reliable sources of information</li> </ul>
<p><b>2.7 Physical education</b>—Candidates know, understand, and use—as appropriate to their own understanding and skills—human movement and physical activity as central elements to foster active, healthy life styles and enhanced quality of life for elementary students.</p>	<p>Candidates understand physical education content relevant to the development of physically educated individuals. They:</p> <ul style="list-style-type: none"> <li>• structure learning activities to ensure that students demonstrate competence in many movement forms, and can apply movement concepts and principles to the learning and development of motor skills</li> <li>• know that physical inactivity is a major health risk factor in our society and recognize the critical importance of physically active life styles for all students</li> <li>• help students develop knowledge and skills necessary to achieve and maintain a health-enhancing level of physical fitness</li> <li>• appreciate the intrinsic values and benefits associated with physical activity</li> <li>• are able to structure movement experiences that foster opportunities for enjoyment, challenge, self-expression, and social interaction, and that elicit responsible personal and social behavior and respect for individual differences among people in</li> </ul>

	physical activity.
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<b>Standard 3 - Instruction</b>	
<b>Description</b>	<b>Indicators</b>
<p><b>3.1 Integrating and applying knowledge for instruction—</b> Candidates plan and implement instruction based on knowledge of students, learning theory, connections across the curriculum, curricular goals, and community;</p>	<p>Candidates understand learning theory subjects taught in elementary schools, curriculum development, and student development and know how to use this understanding in planning instruction to meet curriculum goals while making connections across the disciplines. They:</p> <ul style="list-style-type: none"> <li>• are able to motivate students to appreciate and be engaged in the subject matter.</li> <li>• select and create learning experiences that are appropriate for curriculum goals, meaningful to elementary students, and based upon principles of effective teaching (e.g. that activate students' prior knowledge, anticipate preconceptions, encourage exploration and problem-solving, and build new skills on those previously acquired).</li> <li>• use a variety of resources, including technology and textbooks, and look beyond their classroom to determine how numerous information resources in both print and electronic form might benefit their students.</li> <li>• understand and use appropriate technology to help students become capable technology users through communication; through access, management, analysis and problem solving with information; and through collaborative and self-directed learning.</li> <li>• collaborate with specialists to promote learning in all areas of the curriculum for all elementary students.</li> </ul>
<p><b>3.2 Adaptation to diverse students—</b>Candidates understand how elementary students differ in their development and approaches to learning, and create instructional opportunities that are adapted to diverse students;</p>	<p>Candidates understand and can identify differences in approaches to learning and performance, including different learning styles, and ways students demonstrate learning. They:</p> <ul style="list-style-type: none"> <li>• understand how elementary students' learning is influenced by individual experiences, talents, disabilities, and prior learning, as well as language, culture, family, and community values.</li> <li>• Candidates know how to seek assistance and guidance from specialists and other resources to address elementary students' exceptional learning needs and understand the importance of collaboration with specialists and families.</li> <li>• identify and design instruction appropriate to K-6</li> </ul>

	<p>students' levels of development, learning styles, strengths, and needs, using teaching approaches that are sensitive to the multiple experiences of students</p> <ul style="list-style-type: none"> <li>• plan instructional tasks and activities appropriate to the needs of students who are culturally diverse and those with exceptional learning needs in elementary schools.</li> <li>• are able to apply knowledge of the richness of contributions from diverse cultures to each content area studied by elementary students.</li> </ul>
<p><b>3.3 Development of critical thinking and problem solving</b>—Candidates understand and use a variety of teaching strategies that encourage elementary students' development of critical thinking and problem solving;</p>	<p>Candidates understand cognitive processes associated with various kinds of learning and how these processes can be stimulated. They:</p> <ul style="list-style-type: none"> <li>• understand principles and techniques, advantages and limitations, associated with appropriate teaching strategies (e.g. cooperative learning, direct instruction, inquiry, whole group discussion, independent study, interdisciplinary instruction).</li> <li>• know how to enhance learning through use of a wide variety of materials as well as collaboration with specialists, other colleagues, and technological resources, and through multiple teaching and learning strategies that will promote development of critical thinking, problem solving, and performance capabilities.</li> </ul>
<p><b>3.4 Active engagement in learning</b>—Candidates use their knowledge and understanding of individual and group motivation and behavior among students at the K-6 level to foster active engagement in learning, self motivation, and positive social interaction and to create supportive learning environments;</p>	<p>Teacher candidates understand principles of effective classroom management as well as human motivation and behavior from the foundational sciences of psychology, anthropology, and sociology. They:</p> <ul style="list-style-type: none"> <li>• use a range of strategies and can collaborate with specialists to promote positive relationships, cooperation, conflict resolution, and purposeful learning in the classroom.</li> <li>• create learning communities in which elementary students assume responsibility for themselves and one another, participate in decision making, work collaboratively and independently, and engage in purposeful learning activities.</li> <li>• understand and use appropriate and effective interpersonal and small group communication techniques to create an effective learning environment.</li> </ul>
<p><b>3.5 Communication to foster collaboration</b>—Candidates use their knowledge and understanding of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration,</p>	<p>Candidates understand communication theory, language development, and the role of language in learning among elementary students, and they also understand how cultural and gender differences can affect communication in the classroom. They:</p>

<p>and supportive interaction in the elementary classroom.</p>	<ul style="list-style-type: none"> <li>• model effective communication strategies in conveying ideas and information asking questions (e.g. monitoring the effects of messages restating ideas and drawing connections; using visual, aural, and kinesthetic cues; being sensitive to nonverbal cues given and received).</li> <li>• use oral and written discourse between themselves and their students, and among students, to develop and extend elementary students' understanding of subject matter</li> <li>• know how to use a variety of media communication tools, including audio-visual aids and computer-based technologies, to enrich learning opportunities.</li> </ul>
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### Standard 4 - Assessment

Description	Indicators
<p><b>4.0 Assessment for instruction—</b> Candidates know, understand, and use formal and informal assessment strategies to plan, evaluate and strengthen instruction that will promote continuous intellectual, social, emotional, and physical development of each elementary student.</p>	<p>Candidates know that assessment is an essential and integral part of instruction. It defines the beginning point; helps identify objectives, materials and effective teaching methods or techniques; and informs the need to re-teach or adapt instruction. They:</p> <ul style="list-style-type: none"> <li>• understand the characteristics, uses, advantages, and limitations of different types of assessment appropriate for evaluating how K-6 students learn, what they know, and what they are able to do in each subject area.</li> <li>• recognize that many different assessment tools and strategies, accurately and systematically used, are necessary for monitoring and promoting learning for each student.</li> <li>• appropriately use a variety of formal and informal assessment techniques (e.g. observation, portfolios of elementary student work, teacher-made tests, performance tasks, projects, student self-assessments, peer assessment, and standardized tests) to enhance their knowledge of individual students, evaluate students' progress and performances, modify teaching and learning strategies, and collaborate with specialists on accommodating the needs of students with exceptionalities</li> <li>• use formative and summative assessments to determine student understanding of each subject area and take care to align assessments with instructional practice</li> <li>• are aware that technology can facilitate appropriate forms of assessment and provide evidence across multiple dimensions of student</li> </ul>

	<p>performance</p> <ul style="list-style-type: none"> <li>• use technology to improve the efficiency and effectiveness of assessment processes and in management of instruction.</li> <li>• monitor their own teaching strategies and behavior in relation to student success, modifying plans and instructional approaches accordingly.</li> </ul>
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**Standard 5 - Professionalism**

Description	Indicators
<p><b>5.1 Professional growth, reflection, and evaluation</b>—Candidates are aware of and reflect on their practice in light of research on teaching, professional ethics, and resources available for professional learning; they continually evaluate the effects of their professional decisions and actions on students, families and other professionals in the learning community and actively seek out opportunities to grow professionally.</p>	<p>While synthesis of knowledge is a lifetime process for a professional, by the end of teacher preparation candidates ready to enter the classroom as elementary generalist teachers should be:</p> <ul style="list-style-type: none"> <li>• working independently on a variety of disciplinary and pedagogical problems and responsibilities by combining as appropriate their knowledge and skills in (a) child development; (b) English language arts, science, mathematics, social studies, the arts, health and physical education, (c) instructional technique and learning technologies, and (d) assessment;</li> <li>• focusing and defending independent analyses and value judgments about disciplinary content and teaching methodologies, their various potential relationships, and their applications to specific circumstances;</li> <li>• acquiring the intellectual tools to work with evolving issues and conditions as time and situations change, including the ability to make wise decisions according to time, place, and population;</li> <li>• identifying, accessing, and using technology-based resources in support of their continuing professional development;</li> <li>• demonstrating awareness of and commitment to the profession's codes of ethical conduct;</li> <li>• understanding basic interrelationships and interdependencies among the various professions and activities that constitute the disciplines, content, and processes of elementary education.</li> </ul> <p>They know major areas of research on teaching and of resources available for professional learning (e.g. professional literature, colleagues, professional associations, professional development activities). They use classroom observation, information about students, and research as sources for evaluating the outcomes of teaching and learning and as a basis for experimenting with, reflecting on, and revising</p>

	practice.
<b>5.2 Collaboration with families, colleagues, and community agencies</b> —Candidates know the importance of establishing and maintaining a positive collaborative relationship with families, school colleagues, and agencies in the larger community to promote the intellectual, social, emotional, physical growth and well-being of children.	<p>Candidates understand different family beliefs, traditions, values, and practices across cultures and within society and use their knowledge effectively. They:</p> <ul style="list-style-type: none"><li>• involve families as partners in supporting the school both inside and outside the classrooms.</li><li>• involve families in assessing and planning for individual children, including children with disabilities, developmental delays, or special abilities.</li><li>• understand schools as organizations within the larger community context and the operations of relevant aspects of the systems in which they work.</li><li>• understand how factors in the elementary students' environments outside of school may influence the students' cognitive, emotional, social, and physical well-being and, consequently, their lives and learning.</li><li>• participate in collegial activities designed to make the entire school a productive learning environment and develop effective collaborations with specialists.</li></ul>