

Rule #	Stnd #	Elem Knowl edge Crs#	Elem Attain ment Crs#	Standard Description
2000	2			2, student learning. A teacher must understand how students learn and develop and must provide learning opportunities that support a student's intellectual, social, and personal development. The teacher must:
2000	2A	EDU 2210	EDU 2210	understand how students internalize knowledge, acquire skills, and develop thinking behaviors, and know how to use instructional strategies that promote student learning;
2000	2B	EDU 2210	EDU 2210	understand that a student's physical, social, emotional, moral, and cognitive development influence learning and know how to address these factors when making instructional decisions;
2000	2C	EDU 2210	EDU 2210	understand developmental progressions of learners and ranges of individual variation within the physical, social, emotional, moral, and cognitive domains, be able to identify levels of readiness in learning, and understand how development in any one domain may affect performance in others;
2000	2D	EDU 2275/3615	EDU 3715	use a student's strengths as a basis for growth, and a student's errors as opportunities for learning;
2000	2E	EDU 4500	EDU 4500	assess both individual and group performance and design developmentally appropriate instruction that meets the student's current needs in the cognitive, social, emotional, moral, and physical domains;
2000	2F	EDU 4500	EDU 4500	link new ideas to familiar ideas; make connections to a student's experiences; provide opportunities for active engagement, manipulation, and testing of ideas and materials; and encourage students to assume responsibility for shaping their learning tasks;
2000	2G	EDU 3610	EDU 3610	use a student's thinking and experiences as a resource in planning instructional activities by encouraging discussion, listening and responding to group interaction, and eliciting oral, written, and other samples of student thinking; and
2000	2H	EDU 1540	EDU 1540	demonstrate knowledge and understanding of concepts related to technology and student learning.
2000	3			3, diverse learners. A teacher must understand how students differ in their approaches to learning and create instructional opportunities that are adapted to students with diverse backgrounds and exceptionalities. The teacher must:
2000	3A	EDU 3610	EDU 3610	understand and identify differences in approaches to learning and performance, including varied learning styles and performance modes and multiple intelligences; and know how to design instruction that uses a student's strengths as the basis for continued learning;
2000	3B	EDU 3250	EDU 3250	know about areas of exceptionality in learning, including learning disabilities, perceptual difficulties, and special physical or mental challenges, gifts, and talents;
2000	3C	EDU 3710	EDU 3710	know about the process of second language acquisition and about strategies to support the learning of students whose first language is not English;
2000	3D	EDU 2300	EDU 2300	understand how to recognize and deal with dehumanizing biases, discrimination, prejudices, and institutional and personal racism and sexism;
2000	3E	EDU 2300	EDU 2300	understand how a student's learning is influenced by individual experiences, talents, and prior learning, as well as language, culture, family, and community values;
2000	3F	EDU 2300	EDU 2300	understand the contributions and lifestyles of the various racial, cultural, and economic groups in our society;
2000	3G	EDU 2300	EDU 2300	understand the cultural content, world view, and concepts that comprise Minnesota-based American Indian tribal government, history, language, and culture;
2000	3H	EDU 2210	Edu 2210	understand cultural and community diversity; and know how to learn about and incorporate a student's experiences, cultures, and community resources into instruction;

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2000	3I	EDU 2300	EDU 2300	understand that all students can and should learn at the highest possible levels and persist in helping all students achieve success;
2000	3J	EDU 2300	EDU 2300	know about community and cultural norms;
2000	3K	EDU 3610	Edu 3610	identify and design instruction appropriate to a student's stages of development, learning styles, strengths, and needs;
2000	3L	EDU 4500	EDU 4500	use teaching approaches that are sensitive to the varied experiences of students and that address different learning and performance modes;
2000	3M	EDU 3250	EDU 3250	accommodate a student's learning differences or needs regarding time and circumstances for work, tasks assigned, communication, and response modes;
2000	3N	EDU 3250	EDU 3250	identify when and how to access appropriate services or resources to meet exceptional learning needs;
2000	3O	EDU 4500	EDU 4500	use information about students' families, cultures, and communities as the basis for connecting instruction to students' experiences;
2000	3P	EDU 2210	EDU 2210	bring multiple perspectives to the discussion of subject matter, including attention to a student's personal, family, and community experiences and cultural norms;
2000	3Q	EDU 4500	EDU 4500	develop a learning community in which individual differences are respected; and
2000	3R	EDU 3610	EDU 3610	identify and apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
2000	4			4, instructional strategies. A teacher must understand and use a variety of instructional strategies to encourage student development of critical thinking, problem solving, and performance skills. The teacher must:
2000	4A	EDU 3620	EDU 3620	understand Minnesota's graduation standards and how to implement them;
2000	4B	EDU 2210	EDU 2210	understand the cognitive processes associated with various kinds of learning and how these processes can be stimulated;
2000	4C	EDU 3610	EDU 3610	understand principles and techniques, along with advantages and limitations, associated with various instructional strategies;
2000	4D	EDU 2275/3615	Edu 3715	nurture the development of student critical thinking, independent problem solving, and performance capabilities;
2000	4E	EDU 4500	EDU 4500	demonstrate flexibility and reciprocity in the teaching process as necessary for adapting instruction to student responses, ideas, and needs;
2000	4F	EDU 3710	EDU 3710	design teaching strategies and materials to achieve different instructional purposes and to meet student needs including developmental stages, prior knowledge, learning styles, and interests;
2000	4G	EDU 3610	EDU 3610	use multiple teaching and learning strategies to engage students in active learning opportunities that promote the development of critical thinking, problem solving, and performance capabilities and that help students assume responsibility for identifying and using learning resources;
2000	4H	EDU 4500	EDU 4500	monitor and adjust strategies in response to learner feedback;
2000	4I	EDU 4500	EDU 4500	vary the instructional process to address the content and purposes of instruction and the needs of students;

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2000	4J	EDU 3610	EDU 3610	develop a variety of clear, accurate presentations and representations of concepts, using alternative explanations to assist students' understanding and present varied perspectives to encourage critical thinking;
2000	4K	EDU 2271	EDU 2271	use educational technology to broaden student knowledge about technology, to deliver instruction to students at different levels and paces, and to stimulate advanced levels of learning; and
2000	4L	EDU 2271	EDU 4500	develop, implement, and evaluate lesson plans that include methods and strategies to maximize learning that incorporate a wide variety of materials and technology resources.
2000	5			5, learning environment. A teacher must be able to use an understanding of individual and group motivation and behavior to create learning environments that encourage positive social interaction, active engagement in learning, and self-motivation. The teacher must:
2000	5A	EDU 2210	EDU 2210	understand human motivation and behavior and draw from the foundational sciences of psychology, anthropology, and sociology to develop strategies for organizing and supporting individual and group work;
2000	5B	EDU 2300	EDU 2300	understand how social groups function and influence people, and how people influence groups;
2000	5C	EDU 2210	EDU 2210	know how to create learning environments that contribute to the self-esteem of all persons and to positive interpersonal relations;
2000	5D	EDU 2271	EDU 2271	know how to help people work productively and cooperatively with each other in complex social settings;
2000	5E	EDU 4500	EDU 4500	understand the principles of effective classroom management and use a range of strategies to promote positive relationships, cooperation, and purposeful learning in the classroom;
2000	5F	EDU 2210	EDU 2210	know factors and situations that are likely to promote or diminish intrinsic motivation and how to help students become self-motivated;
2000	5G	EDU 2300	EDU 2300	understand how participation supports commitment;
2000	5H	EDU 4500	EDU 4500	establish a positive climate in the classroom and participate in maintaining a positive climate in the school as a whole;
2000	5I	EDU 4500	EDU 4500	establish peer relationships to promote learning;
2000	5J	EDU 2210	EDU 2210	recognize the relationship of intrinsic motivation to student lifelong growth and learning;
2000	5K	EDU 4500	EDU 4500	use different motivational strategies that are likely to encourage continuous development of individual learner abilities;
2000	5L	EDU 4500	EDU 4500	design and manage learning communities in which students assume responsibility for themselves and one another, participate in decision making, work both collaboratively and independently, and engage in purposeful learning activities;
2000	5M	EDU 4500	EDU 4500	engage students in individual and group learning activities that help them develop the motivation to achieve, by relating lessons to students' personal interests, allowing students to have choices in their learning, and leading students to ask questions and pursue problems that are meaningful to them and the learning;
2000	5N	EDU 4500	EDU 4500	organize, allocate, and manage the resources of time, space, activities, and attention to provide active engagement of all students in productive tasks;
2000	5O	EDU 4500	EDU 4500	maximize the amount of class time spent in learning by creating expectations and processes for communication and behavior along with a physical setting conducive to classroom goals;
2000	5P	EDU 4500	EDU 4500	develop expectations for student interactions, academic discussions, and individual and group responsibility that create a positive classroom climate of openness, mutual respect, support, inquiry, and learning;

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2000	5Q	EDU 4500	EDU 4500	analyze the classroom environment and make decisions and adjustments to enhance social relationships, student motivation and engagement, and productive work; and
2000	5R	EDU 4500	EDU 4500	organize, prepare students for, and monitor independent and group work that allows for full, varied, and effective participation of all individuals.
2000	6			6, communication. A teacher must be able to use knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom. The teacher must:
2000	6A	EDU 3710	EDU 3710	understand communication theory, language development, and the role of language in learning;
2000	6B	EDU 2300	EDU 4500	understand how cultural and gender differences can affect communication in the classroom;
2000	6C	EDU 2260	EDU 2260	understand the importance of nonverbal as well as verbal communication;
2000	6D	EDU 2260	EDU 2260	know effective verbal, nonverbal, and media communication techniques;
2000	6E	EDU 3710	EDU 3710	understand the power of language for fostering self-expression, identity development, and learning;
2000	6F	EDU 2275/ 3615	EDU 3715	use effective listening techniques;
2000	6G	EDU 4500	EDU 4500	foster sensitive communication by and among all students in the class;
2000	6H	EDU 2275/ 3615	EDU 3715	use effective communication strategies in conveying ideas and information and in asking questions;
2000	6I	EDU 4500	EDU 4500	support and expand learner expression in speaking, writing, and other media;
2000	6J	EDU 2270	EDU 2270	know how to ask questions and stimulate discussion in different ways for particular purposes, including probing for learner understanding, helping students articulate their ideas and thinking processes, promoting productive risk-taking and problem-solving, facilitating factual recall, encouraging convergent and divergent thinking, stimulating curiosity, and helping students to question; and
2000	6K	EDU 2271	EDU 2271	use a variety of media and educational technology to enrich learning opportunities.
2000	7			7, planning instruction. A teacher must be able to plan and manage instruction based upon knowledge of subject matter, students, the community, and curriculum goals. The teacher must:
2000	7A	EDU 4500	EDU 4500	understand learning theory, subject matter, curriculum development, and student development and know how to use this knowledge in planning instruction to meet curriculum goals;
2000	7B	EDU 2271	EDU 4500	plan instruction using contextual considerations that bridge curriculum and student experiences;
2000	7C	EDU 3250	EDU 3250	plan instructional programs that accommodate individual student learning styles and performance modes;
2000	7D	EDU 4500	EDU 4500	create short-range and long-range plans that are linked to student needs and performance;
2000	7E	EDU 3250	EDU 3250	design lessons and activities that operate at multiple levels to meet the developmental and individual needs of students and to help all progress;

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2000	7F	EDU 3610	EDU 3610	implement learning experiences that are appropriate for curriculum goals, relevant to learners, and based on principles of effective instruction including activating student prior knowledge, anticipating preconceptions, encouraging exploration and problem solving, and building new skills on those previously acquired;
2000	7G	EDU 4500	EDU 4500	evaluate plans in relation to short-range and long-range goals, and systematically adjust plans to meet student needs and enhance learning; and
2000	7H	EDU 2271	EDU 4500	plan for the management of technology resources within the context of learning activities and develop strategies to manage student learning in a technology-integrated environment.
2000	8			8, assessment. A teacher must understand and be able to use formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the student. The teacher must:
2000	8A	EDU 4500	EDU 4500	be able to assess student performance toward achievement of the Minnesota graduation standards under chapter 3501;
2000	8B	EDU 3620	EDU 3620	understand the characteristics, uses, advantages, and limitations of different types of assessments including criterion-referenced and norm-referenced instruments, traditional standardized and performance-based tests, observation systems, and assessments of student work;
2000	8C	EDU 3620	EDU 3620	understand the purpose of and differences between assessment and evaluation;
2000	8D	EDU 3620	EDU 3620	understand measurement theory and assessment-related issues, including validity, reliability, bias, and scoring concerns;
2000	8E	EDU 4500	EDU 4500	select, construct, and use assessment strategies, instruments, and technologies appropriate to the learning outcomes being evaluated and to other diagnostic purposes;
2000	8F	EDU 3250	EDU 3250	use assessment to identify student strengths and promote student growth and to maximize student access to learning opportunities;
2000	8G	EDU 4500	EDU 4500	use varied and appropriate formal and informal assessment techniques including observation, portfolios of student work, teacher-made tests, performance tasks, projects, student self-assessments, peer assessment, and standardized tests;
2000	8H	EDU 4500	EDU 4500	use assessment data and other information about student experiences, learning behaviors, needs, and progress to increase knowledge of students, evaluate student progress and performance, and modify teaching and learning strategies;
2000	8I	EDU 4500	EDU 4500	implement students' self-assessment activities to help them identify their own strengths and needs and to encourage them to set personal goals for learning;
2000	8J	EDU 4500	EDU 4500	evaluate the effect of class activities on both individuals and the class as a whole using information gained through observation of classroom interactions, questioning, and analysis of student work;
2000	8K	EDU 4500	EDU 4500	monitor teaching strategies and behaviors in relation to student success to modify plans and instructional approaches to achieve student goals;
2000	8L	EDU 4500	EDU 4500	establish and maintain student records of work and performance;
2000	8M	EDU 4500	EDU 4500	responsibly communicate student progress based on appropriate indicators to students, parents or guardians, and other colleagues; and
2000	8N	EDU 3620	EDU 4500	use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.

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2000	9			9, reflection and professional development. A teacher must be a reflective practitioner who continually evaluates the effects of choices and actions on others, including students, parents, and other professionals in the learning community, and who actively seeks out opportunities for professional growth. The teacher must:
2000	9A	EDU 1540	EDU 1540	understand the historical and philosophical foundations of education;
2000	9B	EDU 2275/ 3615	EDU 3715	understand methods of inquiry, self-assessment, and problem-solving strategies for use in professional self-assessment;
2000	9C	EDU 1540	EDU 1505	understand the influences of the teacher's behavior on student growth and learning;
2000	9D	EDU 1540	EDU 1505	know major areas of research on teaching and of resources available for professional development;
2000	9E	EDU 4500	EDU 4500	understand the role of reflection and self-assessment on continual learning;
2000	9F	EDU 2300	EDU 2300	understand the value of critical thinking and self-directed learning;
2000	9G	EDU 1540	EDU 1540	understand professional responsibility and the need to engage in and support appropriate professional practices for self and colleagues;
2000	9H	EDU 4500	EDU 4500	use classroom observation, information about students, and research as sources for evaluating the outcomes of teaching and learning and as a basis for reflecting on and revising practice;
2000	9I	EDU 4500	EDU 4500	use professional literature, colleagues, and other resources to support development as both a student and a teacher;
2000	9J	EDU 4500	EDU 4500	collaboratively use professional colleagues within the school and other professional arenas as supports for reflection, problem-solving, and new ideas, actively sharing experiences, and seeking and giving feedback;
2000	9K	EDU 1540	EDU 1540	understand standards of professional conduct in the Code of Ethics for Minnesota Teachers in part 8700.7500;
2000	9L	EDU 1540	EDU 1540	understand the responsibility for obtaining and maintaining licensure, the role of the teacher as a public employee, and the purpose and contributions of educational organizations; and
2000	9M	EDU 4510	EDU 4510	understand the role of continuous development in technology knowledge and skills representative of technology applications for education.
2000	10			10, collaboration, ethics, and relationships. A teacher must be able to communicate and interact with parents or guardians, families, school colleagues, and the community to support student learning and well-being. The teacher must:
2000	10A	EDU 4500	EDU 4500	understand schools as organizations within the larger community context and understand the operations of the relevant aspects of the systems within which the teacher works;
2000	10B	EDU 2240	EDU 2240	understand how factors in a student's environment outside of school, including family circumstances, community environments, health and economic conditions, may influence student life and learning;
2000	10C	EDU 1540	EDU 1540	understand student rights and teacher responsibilities to equal education, appropriate education for students with disabilities, confidentiality, privacy, appropriate treatment of students, and reporting in situations of known or suspected abuse or neglect;
2000	10D	EDU 1540	EDU 1540	understand the concept of addressing the needs of the whole learner;
2000	10E	EDU 2240	EDU 2240	understand the influence of use and misuse of tobacco, alcohol, drugs, and other chemicals on student life and learning;

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2000	10F	EDU 3620	EDU 3620	understand data practices;
2000	10G	EDU 4500	EDU 4500	collaborate with other professionals to improve the overall learning environment for students;
2000	10H	EDU 4500	EDU 4500	collaborate in activities designed to make the entire school a productive learning environment;
2000	10I	EDU 4500	EDU 4500	consult with parents, counselors, teachers of other classes and activities within the school, and professionals in other community agencies to link student environments;
2000	10J	EDU 2271	EDU 2271	identify and use community resources to foster student learning;
2000	10K	EDU 4500	EDU 4500	establish productive relationships with parents and guardians in support of student learning and well-being;
2000	10L	EDU 1540	EDU 1540	understand mandatory reporting laws and rules; and
2000	10M	EDU 4510	EDU 4500	understand the social, ethical, legal, and human issues surrounding the use of information and technology in prekindergarten through grade 12 schools and apply that understanding in practice.
3200	A			A teacher of children in kindergarten through grade 6 must:
3200	A1	EDU 4500	EDU 4500	understand and apply the research base for and the best practices of kindergarten and elementary level education;
3200	A2	EDU 4500	EDU 4500	understand and apply educational principles relevant to physical, social, emotional, moral, and cognitive development of young children;
3200	A3	EDU 2210	EDU 2210	understand and apply the concepts of "belonging" and "family connectedness" as crucial to the development of young children;
3200	A4	EDU 2210	EDU 2210	understand and apply the process and necessity of collaboration with families and other adults in support of the learning of young children;
3200	A5	EDU 2260	EDU 2260	understand how to integrate curriculum across subject areas in developmentally appropriate ways;
3200	A6	EDU 4500	EDU 4500	apply the standards of effective practice in teaching students in kindergarten through grade 6 through a variety of early and ongoing clinical experiences with kindergarten, primary, and intermediate students within a range of educational programming models; and
3200	A7	EDU 4500	EDU 4500	apply the standards of effective practice in teaching students in kindergarten through grade 6 through a minimum of ten weeks of full-time student teaching.
3200	B			A teacher of children in kindergarten through grade 6 must demonstrate the knowledge of fundamental concepts of communication arts and literature and the connections between them. The teacher must:
3200	B1	EDU 3710	EDU 3710	develop the skills and understanding to teach reading, writing, speaking, listening, media literacy, and literature;
3200	B2	EDU 3710	EDU 3710	understand and apply teaching methods related to the developmental stages of language;
3200	B3	EDU 3710	EDU 3710	use a variety of developmentally appropriate techniques for augmenting the listening, speaking, reading, and writing vocabularies of children;
3200	B4	EDU 3710	EDU 3710	know how to integrate the communication arts;
3200	B5	EDU 3710	EDU 3710	develop children's use of a process to write competently with confidence, accuracy, and imagination appropriate to the purpose and audience;

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3200	B6	EDU 3710	EDU 3710	develop children's ability to use written, spoken, and visual language to communicate effectively with a variety of audiences and for different purposes;
3200	B7	EDU 3710	EDU 3710	know children's and young adolescents' literature representing a variety of genre; and
3200	B8	EDU 3710	EDU 3710	know how to use books and other printed sources to develop children's personal growth and lifelong learning.
3200	C			A teacher of children in kindergarten through grade 6 must have knowledge of the foundations of reading processes, development, and instruction, including:
3200	C1			oral and written language development, including:
3200	C1a	EDU 3710	EDU 3710	relationships among reading, writing, and oral language and the interdependent nature of reading, writing, listening, and speaking to promote reading proficiency;
3200	C1b	EDU 3710	EDU 3710	the use of formal and informal oral language and writing opportunities across the curriculum to help students make connections between oral language and reading and writing, particularly English language learners; and
3200	C1c	EDU 3710	EDU 3710	the interrelated elements of language arts instruction that support the reading development of English language learners, including ways in which the writing systems of other languages may differ from English and factors and processes involved in transferring literacy competencies from one language to another.
3200	C2			phonological and phonemic awareness, including:
3200	C2a	EDU 3710	EDU 3710	the phonemes that make up the English language;
3200	C2b	EDU 3710	EDU 3710	the ways in which reading achievement is related to phonological and phonemic awareness, including the ability to recognize word boundaries, to rhyme, and to blend, segment, substitute, and delete sounds in words; and
3200	C2c	EDU 3710	EDU 3710	the instructional progression of phonological awareness, for example, words, syllables, onsets and rimes, and phonemes;
3200	C3			concepts about print, including:
3200	C3a	EDU 3710	EDU 3710	knowledge about how letters, words, and sentences are represented in written English;
3200	C3b	EDU 3710	EDU 3710	the importance of teaching uppercase and lowercase letter recognition and formation; and
3200	C3c	EDU 3710	EDU 3710	the instructional progression of the alphabetic principle;
3200	C4			phonics and other word identification strategies and fluency, including:
3200	C4a	EDU 3710	EDU 3710	systematic, explicit phonics instruction that is sequenced according to the increasing complexity of linguistic units;
3200	C4b	EDU 3710	EDU 3710	word identification strategies and common, irregular sight words;
3200	C4c	EDU 3710	EDU 3710	the stages of spelling development and systematic planning for spelling instruction related to the stages of spelling development;
3200	C4d	EDU 3710	EDU 3710	how the etymology and morphology of words relate to orthographic patterns in English; and
3200	C4e	EDU 3710	EDU 3710	the development of reading fluency;
3200	C5			knowledge of how to develop vocabulary knowledge, including:

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3200	C5a	EDU 3710	EDU 3710	understanding the critical role vocabulary knowledge plays in reading;
3200	C5b	EDU 3710	EDU 3710	how to provide explicit instruction in vocabulary development and in determining the meaning and accurate use of unfamiliar words encountered through listening and reading; and
3200	C5c	EDU 3710	EDU 3710	how to provide opportunities for students to engage in early and continual language experiences to increase vocabulary by modeling and explicitly teaching students a variety of strategies for gaining meaning from unfamiliar words;
3200	C6			comprehension processes related to reading, including:
3200	C6a	EDU 3710	EDU 3710	knowledge of how proficient readers read, how to facilitate listening comprehension, and how to develop comprehension of print material;
3200	C6b	EDU 3710	EDU 3710	the levels of comprehension, how to explicitly teach and provide guided practice in comprehension skills and strategies; and
3200	C6c	EDU 3710	EDU 3710	how to facilitate comprehension at various stages of reading development by selecting and using a range of texts, activities, and strategies before, during, and after reading;
3200	C7			content-area literacy, including:
3200	C7a	EDU 3710	EDU 3710	knowledge of reading comprehension processes necessary to comprehend different types of informational materials and content-area texts; and
3200	C7b	EDU 3710	EDU 3710	the structures and features of expository (informational) texts and effective reading strategies to address different text structures and purposes for reading;
3200	C8			literary response and analysis, including:
3200	C8a	EDU 3710	EDU 3710	knowledge of how to provide frequent opportunities to listen to and read high-quality literature for different purposes;
3200	C8b	EDU 3710	EDU 3710	knowledge of how to select, evaluate, and respond to literature from a range of genres, eras, perspectives, and cultures; and
3200	C8c	EDU 3710	EDU 3710	knowledge of how to analyze and teach literary text structures and elements and criticism, drawing upon literature and instructional needs and interests;
3200	C9			structure of the English language, including:
3200	C9a	EDU 3710	EDU 3710	basic knowledge of English conventions and the structure of the English language (sentence structure, grammar, punctuation, capitalization, spelling, syntax, and semantics);
3200	C9b	EDU 3710	EDU 3710	knowledge of how to enhance literacy skills including helping students understand similarities and differences between language structures used in spoken and written English;
3200	C9c	EDU 3710	EDU 3710	basic knowledge of English syntax and semantics and the ability to use this knowledge to improve reading competence, including how to help students interpret and apply English grammar and language conventions in authentic reading, writing, listening, and speaking contexts; and
3200	C9d	EDU 3710	EDU 3710	knowledge of how to help students consolidate knowledge of English grammar and improve reading fluency and comprehension by providing frequent opportunities to listen to, read, and reread materials.
3200	D			A teacher of children in kindergarten through grade 6 must have knowledge of and ability to use a wide range of instructional practices, approaches, methods, and curriculum materials to support reading instruction, including:
3200	D1			appropriate, motivating instruction, both explicit and implicit, in:

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3200	D1a	EDU 3710	EDU 3710	oral language development;
3200	D1b	EDU 3710	EDU 3710	auditory awareness, discrimination of sounds, phonemic awareness, and word awareness;
3200	D1c	EDU 3710	EDU 3710	the teaching of phonics, sight words, spelling, and fluency, including the selection, design, and use of instructional programs, materials, texts, and activities; and
3200	D1d	EDU 3710	EDU 3710	applying a variety of reading comprehension strategies to different types of informational materials and content-area texts including teaching the structures and features of expository texts;
3200	D2			selection, design, and use of appropriate and engaging instructional strategies, activities, and materials, including:
3200	D2a	EDU 3710	EDU 3710	multisensory techniques to ensure that students learn concepts about print including how to recognize and write letters;
3200	D2b	EDU 3710	EDU 3710	teaching vocabulary using a range of instructional activities to extend students' understanding of words; and
3200	D2c	EDU 3710	EDU 3710	teaching comprehension skills and strategies, including opportunities for guided and independent work;
3200	D3	EDU 3710	EDU 3710	selection and appropriate use of a wide range of engaging texts representing various genres and cultures when designing reading lessons; the ability to facilitate and develop students' responses to literature and critical reading abilities through high level, interactive discussions about texts;
3200	D4	EDU 3710	EDU 3710	selection and appropriate explicit instruction and guided practice to teach written-language structures using a range of approaches and activities to develop students' facility in comprehending and using academic language;
3200	D5	EDU 3710	EDU 3710	development of a literacy framework to coherently organize reading programs and effectively implement lessons, including a variety of grouping strategies, guided practice, and independent work; and
3200	D6	EDU 3710	EDU 3710	the ability to design purposeful lessons and tasks based on the qualities, structures, and difficulty of texts and the reading needs of individuals, including the selection and use of supplementary materials to support the reading development of struggling and gifted readers.
3200	E			A teacher of children in kindergarten through grade 6 must have knowledge of and ability to use a variety of assessment tools and practices to plan and evaluate effective reading instruction, including:
3200	E1			formal and informal tools to assess students':
3200	E1a	EDU 3710	EDU 3710	oral and written language development;
3200	E1b	EDU 3710	EDU 3710	auditory awareness, discrimination of sounds, and phonological and phonemic awareness;
3200	E1c	EDU 3710	EDU 3710	understanding of concepts about print and the alphabetic principle;
3200	E1d	EDU 3710	EDU 3710	knowledge of and skills in applying phonics and other word identification strategies, spelling strategies, and fluency;
3200	E1e	EDU 3710	EDU 3710	vocabulary knowledge in relation to specific reading needs and texts;
3200	E1f	EDU 3710	EDU 3710	comprehension of narrative and expository texts and the use of comprehension strategies, including determining independent, instructional, and frustration reading levels;
3200	E1g	EDU 3710	EDU 3710	comprehension in content area reading;

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3200	E1h	EDU 3710	EDU 3710	ability to evaluate and respond to a range of literature and analyze text structures and elements; and
3200	E1i	EDU 3710	EDU 3710	oral and written language to determine understanding and use of English language structures and conventions;
3200	E2			formal and informal tools to:
3200	E2a	EDU 3710	EDU 3710	plan, evaluate, and differentiate instruction to meet the needs of students from various cognitive, linguistic, and cultural backgrounds; and
3200	E2b	EDU 3710	EDU 3710	design and implement appropriate classroom interventions for struggling readers and enrichment programs for gifted readers;
3200	E3	EDU 3710	EDU 3710	the ability to work with reading specialists, gifted and talented specialists, and other staff on advanced intervention and enrichment programs;
3200	E4	EDU 3620	EDU 3620	the ability to communicate results of assessments to specific individuals in accurate and coherent ways that indicate how the results might impact student achievement;
3200	E5	EDU 3710	EDU 3710	the ability to administer selected assessments and analyze and use data to plan instruction through a structured clinical experience linked to university reading course work; and
3200	E6	EDU 3620	EDU 3620	the ability to understand the appropriate uses of each kind of assessment and the concepts of validity and reliability.
3200	F			A teacher of children in kindergarten through grade 6 must have the ability to create a literate and motivating environment that fosters reading by integrating foundational knowledge, use of instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments, including:
3200	F1	EDU 3710	EDU 3710	knowledge of how to use interests, reading abilities, and backgrounds as foundations for the reading program and provide authentic reasons to read and write;
3200	F2	EDU 3710	EDU 3710	the ability to support students and colleagues in the selection or design of materials that match reading levels, interests, cultural, and linguistic backgrounds;
3200	F3	EDU 3710	EDU 3710	the development and implementation of classroom and schoolwide organizational structures that include explicit instruction, guided practice, independent reading, interactive talk, opportunities for response, and reading and writing across the curriculum;
3200	F4	EDU 3710	EDU 3710	the ability to create and maintain a motivating classroom and school environment and teacher and student interactions that promote ongoing student engagement and literacy for students;
3200	F5	EDU 3710	EDU 3710	the ability to foster independence and self-efficacy in readers;
3200	F6	EDU 3710	EDU 3710	the development of independent reading by encouraging and guiding students in selecting independent reading materials, promoting extensive independent reading by providing daily opportunities for self-selected reading and frequent opportunities for sharing what is read; and motivating students to read independently by regularly reading aloud and providing access to a variety of reading materials; and
3200	F7	EDU 3710	EDU 3710	the use of a variety of strategies to motivate students to read at home; encourage and provide support for parents or guardians to read to their children, in English or in the primary languages of English language learners; and to use additional strategies to promote literacy in the home.
3200	G			A teacher of children in kindergarten through grade 6 must demonstrate a view of professional development as a career-long effort and responsibility. The teacher must:

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3200	G1	EDU 3710	EDU 3710	exhibit a particular stance towards professional development. A beginning teacher must view learning about reading processes and student reading development, and becoming more proficient as a teacher of reading, as a career-long effort and responsibility;
3200	G2	EDU 3710	EDU 3710	display positive dispositions toward the act of reading and the teaching of reading, including a belief that students can learn to read regardless of cognitive, cultural, or linguistic backgrounds;
3200	G3	EDU 3710	EDU 3710	provide support for reading development by communicating regularly with parents or caregivers and eliciting their support in a student's reading development;
3200	G4	EDU 3710	EDU 3710	understand how to provide instructions for paraprofessionals and volunteers working in the classroom to ensure that these individuals provide effective supplementary reading instruction;
3200	G5	EDU 3710	EDU 3710	engage in personal learning as a daily and long-term goal to inform instructional practices, including reflection on practices to improve daily instructional decisions and interactions with students; and
3200	G6	EDU 3710	EDU 3710	collaborate with other professionals on literacy learning initiatives.
3200	H			A teacher of children in kindergarten through grade 6 must demonstrate knowledge of fundamental concepts of mathematics and the connections between them. The teacher must know and apply:
3200	H1			concepts of mathematical patterns, relations, and functions, including the importance of number and geometric patterns in mathematics and the importance of the educational link between primary school activities with patterns and the later conceptual development of important ideas related to functions and be able to:
3200	H1a	MTH 1113	MTH 1113	identify and justify observed patterns;
3200	H1b	MTH 1113	MTH 1113	generate patterns to demonstrate a variety of relationships; and
3200	H1c	MTH 1113	MTH 1113	relate patterns in one strand of mathematics to patterns across the discipline;
3200	H2			concepts and techniques of discrete mathematics and how to use them to solve problems from areas including graph theory, combinatorics, and recursion and know how to:
3200	H2a	MTH 1113	MTH 1113	help students investigate situations that involve counting finite sets, calculating probabilities, tracing paths in network graphs, and analyzing iterative procedures; and
3200	H2b	MTH 1113	MTH 1113	apply these ideas and methods in settings as diverse as the mathematics of finance, population dynamics, and optimal planning;
3200	H3			concepts of numerical literacy:
3200	H3a	MTH 1113	MTH 1113	possess number sense and be able to use numbers to quantify concepts in the students' world;
3200	H3b	MTH 1113	MTH 1113	understand a variety of computational procedures and how to use them in examining the reasonableness of the students' answers;
3200	H3c	MTH 1113	MTH 1113	understand the concepts of number theory including divisibility, factors, multiples, and prime numbers, and know how to provide a basis for exploring number relationships; and
3200	H3d	MTH 1113	MTH 1113	understand the relationships of integers and their properties that can be explored and generalized to other mathematical domains;
3200	H4			concepts of space and shape:
3200	H4a	MTH 1114	MTH 1114	understand the properties and relationships of geometric figures;

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3200	H4b	MTH 1114	MTH 1114	understand geometry and measurement from both abstract and concrete perspectives and identify real world applications; and
3200	H4c	MTH 1114	MTH 1114	know how to use geometric learning tools such as geoboards, compass and straight edge, ruler and protractor, patty paper, reflection tools, spheres, and platonic solids;
3200	H5			data investigations:
3200	H5a	MTH 1114	MTH 1114	use a variety of conceptual and procedural tools for collecting, organizing, and reasoning about data;
3200	H5b	MTH 1114	MTH 1114	apply numerical and graphical techniques for representing and summarizing data;
3200	H5c	MTH 1114	MTH 1114	interpret and draw inferences from data and make decisions in a wide range of applied problem situations; and
3200	H5d	MTH 1114	MTH 1114	help students understand quantitative and qualitative approaches to answering questions and develop students' abilities to communicate mathematically;
3200	H6			concepts of randomness and uncertainty:
3200	H6a	MTH 1114	MTH 1114	probability as a way of describing chance in simple and compound events; and
3200	H6b	MTH 1114	MTH 1114	the role of randomness and sampling in experimental studies;
3200	H7			mathematical processes:
3200	H7a	MTH 1113	MTH 1113	know how to reason mathematically, solve problems, and communicate mathematics effectively at different levels of formality;
3200	H7b	MTH 1113	MTH 1113	understand the connections among mathematical concepts and procedures, as well as their application to the real world;
3200	H7c	MTH 1113	MTH 1113	understand the relationship between mathematics and other fields; and
3200	H7d	MTH 1113	MTH 1113	understand and apply problem solving, reasoning, communication, and connections; and
3200	H8			mathematical perspectives:
3200	H8a	MTH 1114	MTH 1114	understand the history of mathematics and the interaction between different cultures and mathematics; and
3200	H8b	MTH 1114	MTH 1114	know how to integrate technological and nontechnological tools with mathematics.
3200	I			A teacher of children in kindergarten through grade 6 must demonstrate knowledge of fundamental social studies concepts and the connections among them. The teacher must know and apply:
3200	I1	EDU 2271	EDU 2271	tools of inquiry and problem solving;
3200	I2			concepts of:
3200	I2a	EDU 2271	EDU 2271	culture and cultural diversity;
3200	I2b	EDU 2271	EDU 2271	the ways human beings view themselves in and over time;
3200	I2c	EDU 2271	EDU 2271	the interaction between people, places, and environments;

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3200	I2d	EDU 2271	EDU 2271	individual development and identity;
3200	I2e	EDU 2271	EDU 2271	interactions among individuals, groups, and institutions;
3200	I2f	EDU 2271	EDU 2271	how people create and change structures of power and authority and of governance;
3200	I2g	EDU 2271	EDU 2271	how people organize for the production, distribution, and consumption of goods and services and how those choices impact the environment;
3200	I2h	EDU 2271	EDU 2271	the relationships among science, technology, and society;
3200	I2i	EDU 2271	EDU 2271	global connections and independence; and
3200	I2j	EDU 2271	EDU 2271	the ideals, principles, and practices that promote productive community involvement;
3200	I3	EDU 2271	EDU 2271	history, government, and culture of Minnesota-based American Indian tribes as integrating concepts throughout the elementary curriculum; and
3200	I4	EDU 2271	EDU 2271	the environment as an integrating concept through understanding of how to use the sciences, social sciences, mathematics, arts, and communications in the exploration of environmental issues and topics.
3200	J			A teacher of children in kindergarten through grade 6 must demonstrate a fundamental knowledge of scientific perspectives, scientific connections, science in personal and social perspectives, the domains of science, and the methods and materials for teaching science and scientific inquiry. The teacher must:
3200	J1	EDU 2270	EDU 2270	understand science as a human endeavor, the nature of scientific knowledge, and the historical perspective of science;
3200	J2			know and apply the understandings and abilities of scientific inquiry including the ability to:
3200	J2a	EDU 2270	EDU 2270	identify questions and concepts that can be explored through scientific inquiry;
3200	J2b	EDU 2270	EDU 2270	design and conduct scientific investigations;
3200	J2c	EDU 2270	EDU 2270	use appropriate scientific instrumentation and equipment and mathematics as tools to improve scientific investigations and communications;
3200	J2d	EDU 2270	EDU 2270	compare the use of multiple types of inquiry for answering questions;
3200	J2e	EDU 2270	EDU 2270	evaluate alternative explanations and models based on evidence, current scientific understanding, and logic; and
3200	J2f	EDU 2270	EDU 2270	communicate and defend a scientific argument;
3200	J3	EDU 2270	EDU 2270	know how to make connections across the domains of science, between science and technology, and between science and other school subjects;
3200	J4	EDU 2270	EDU 2270	use scientific understandings and abilities when making decisions about personal and societal issues;
3200	J5	PSC 1201	PSC 1201	know and apply the fundamental concepts and principles of physical science concerning properties of and changes in matter; position, motion, and force; light, heat, electricity, and magnetism; and kinds of and ways to transfer energy;

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3200	J6	BIO 1104	BIO 1104	know and apply the fundamental concepts and principles of life science concerning the characteristics of organisms, the life cycle of organisms, the interrelationships of organisms and environments, structure and function in living systems, reproduction and heredity, regulation and behavior, populations and ecosystems and their interrelationships, and diversity and adaptations of organisms;
3200	J7	PSC 1202	PSC 1202	know and apply the fundamental concepts and principles of earth and space science concerning properties of earth materials; objects in the sky; changes in earth and sky; structure of the earth system, including hydrosphere, biosphere, atmosphere, and lithosphere; history of the earth; and earth in the solar system; and
3200	J8			know and apply pedagogy and classroom management in science and scientific inquiry including understanding:
3200	J8a	EDU 2270	EDU 2270	content standards under chapter 3501 for recommendations regarding curriculum, instruction, assessment, professional development, and program development;
3200	J8b	EDU 2270	EDU 2270	how to teach scientific inquiry in a developmentally appropriate manner;
3200	J8c	EDU 2270	EDU 2270	common student misconceptions in science and developmentally appropriate strategies to elicit students' misconceptions and help them move to accepted scientific understandings; and
3200	J8d			how to implement safe environments for learning science through knowing:
3200	J8d1	EDU 2270	EDU 2270	state and national legal responsibilities and safety guidelines for teaching science;
3200	J8d2	EDU 2270	EDU 2270	how to establish and enforce recognized safety procedures during the science learning experience;
3200	J8d3	EDU 2270	EDU 2270	how to use required safety equipment for classroom, field, and laboratory settings including goggles, fire extinguisher, fire blanket, eye wash, and chemical shower;
3200	J8d4	EDU 2270	EDU 2270	how to manage, maintain, and utilize science supplies and equipment;
3200	J8d5	EDU 2270	EDU 2270	state and national guidelines and plan for the care, storage, use, and disposal of chemicals and equipment used to teach science;
3200	J8d6	EDU 2270	EDU 2270	the ethics of and restrictions on making and maintaining collections of scientific specimens and data; and
3200	J8d7	EDU 2270	EDU 2270	the ethics of and restrictions on the use of live organisms, and how to acquire, care, handle, and dispose of organisms.
3200	K			A teacher of children in kindergarten through grade 6 must demonstrate knowledge of fundamental physical education and health concepts and the connections among them. The teacher must:
3200	K1	EDU 2240	EDU 2240	understand the knowledge needed for providing learning experiences that encourage personal and community health promotion, disease prevention and safety, and proper nutritional choices;
3200	K2	EDU 2240	EDU 2240	understand strategies for reducing and preventing accidents; drug, alcohol, and tobacco use; and high-risk situations and relationships;
3200	K3	EDU 2240	EDU 2240	understand and apply movement concepts and principles to the learning and development of motor skills; and
3200	K4	EDU 2240	EDU 2240	understand the knowledge needed for providing learning experiences that develop a health-enhancing level of physical fitness.
3200	L			A teacher of children in kindergarten through grade 6 must demonstrate knowledge of fundamental visual and performing arts, including music, dance, and theater, concepts and the connections among them. The teacher must:
3200	L1	EDU 2260	EDU 2260	understand the basic structural elements, principles, and vocabulary of the visual and performing arts;

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3200	L2	EDU 2260	EDU 2260	be able to perform and create using the basic elements and processes of visual and performing arts;
3200	L3	EDU 2260	EDU 2260	know and apply within the elementary curriculum strategies for nurturing artistic modes of expression and thinking;
3200	L4	EDU 2260	EDU 2260	understand the role of visual and performing arts in culture; and
3200	L5	EDU 2260	EDU 2260	know the characteristics of children's developmental stages in the visual and performing arts.