

Table of Contents

DOMAIN I

STUDENT DEVELOPMENT AND LEARNING 1

COMPETENCY 1

UNDERSTAND HUMAN DEVELOPMENT, INCLUDING DEVELOPMENTAL PROCESSES AND VARIATIONS, AND USE THIS UNDERSTANDING TO PROMOTE STUDENT DEVELOPMENT AND LEARNING 5

Skill 1.1: Demonstrates knowledge of the major concepts, principles, and theories of human development (physical, cognitive, linguistic, social, emotional, and moral) as related to young adolescents and adolescents 5

Skill 1.2: Identifies sequences (milestones) and variations of physical, cognitive, linguistic, social, emotional, and moral development of students 6

Skill 1.3: Recognizes the range of individual development differences in students within any given age group and the implications of this developmental variation for instructional decision making 8

Skill 1.4: Identifies ways in which a student's development in one domain (physical, cognitive, linguistic, social, emotional, and moral) may affect learning and development in other domains 9

Skill 1.5: Applies knowledge of developmental characteristics of students to evaluate alternative instructional goals and plans 10

Skill 1.6: Selects appropriate instructional strategies, approaches, and delivery systems to promote students' development and learning 10

COMPETENCY 2

UNDERSTAND LEARNING PROCESSES, AND USE THIS UNDERSTANDING TO PROMOTE STUDENT DEVELOPMENT AND LEARNING 13

Skill 2.1: Analyzes ways in which development and learning processes interact 13

Skill 2.2: Analyzes processes by which students construct meaning and develop skills, and applies strategies to facilitate learning in given situations (e.g., by building connections between new information and prior knowledge; by relating learning to world issues and community concerns; by engaging students in purposeful practice and application of knowledge and skills; by using tools, materials and resources) 14

Skill 2.3: Demonstrates knowledge of different types of learning strategies (e.g., rehearsal, elaboration, organization, metacognition) and how learners use each type of strategy 15

Skill 2.4: Analyzes factors that affect student learning (e.g., learning styles, contextually supported learning versus de-contextualized learning), and adapting instructional practices to promote learning in given situations 17

Skill 2.5: Recognizes how various teacher roles (e.g., direct instructor, facilitator) and student roles (e.g., self-directed learner, group participant, passive observer) may affect learning processes and outcomes 20

Skill 2.6: Recognizes effective strategies for promoting independent thinking and learning (e.g., by helping students develop critical-thinking, decision-making, and problem-solving skills; by enabling students to pursue topics of personal interest) and for promoting students' sense of ownership and responsibility in relation to their own learning 21

COMPETENCY 3

UNDERSTAND HOW FACTORS IN THE HOME, SCHOOL, AND COMMUNITY MAY AFFECT STUDENTS' DEVELOPMENT AND READINESS TO LEARN; AND USE THIS UNDERSTANDING TO CREATE A CLASSROOM ENVIRONMENT WITHIN WHICH ALL STUDENTS CAN DEVELOP AND LEARN

24

Skill 3.1: Recognizes the impact of socio-cultural factors (e.g., culture, heritage, language, socioeconomic profile) in the home, school, and community on students' development and learning	24
Skill 3.2: Analyzes ways in which students' personal health, safety, nutrition, and past or present exposure to abusive or dangerous environments may affect their development and learning in various domains (e.g., physical, cognitive, linguistic, social, emotional, and moral) and their readiness to learn	25
Skill 3.3: Recognizes the significance of family life and the home environment for student development and learning (e.g., nature of the expectations of parents, guardians, and caregivers; degree of their involvement in the student's education)....	28
Skill 3.4: Analyzes how school-wide structures (e.g., tracking) and classroom factors (e.g., homogeneous versus heterogeneous grouping, student-teacher interactions) may affect students' self-concept and learning	30
Skill 3.5: Identifies effective strategies for creating classroom environment that promotes student development and learning by taking advantage of positive factors (e.g., culture, heritage, language) in the home, school, and community and minimizing the effect of negative factors (e.g., minimal family support).....	31
Skill 3.6: Analyzes ways in which peer interactions (e.g., acceptance versus isolation, bullying) may promote or hinder a student's development and success in school, and determining effective strategies for dealing with peer-related issues in given classroom situations.....	35
Skill 3.7: Demonstrates knowledge of health, sexuality, and peer-related issues for students (e.g., self-image, physical appearance and fitness, peer-group conformity) and the interrelated nature of these issues; and recognizes how specific behaviors related to health, sexuality, and peer issues (e.g., eating disorders, drug and alcohol use, gang involvement) can affect development and learning	36

COMPETENCY 4

UNDERSTAND LANGUAGE AND LITERACY DEVELOPMENT, AND USE THIS KNOWLEDGE IN ALL CONTENT AREAS TO DEVELOP THE LISTENING, SPEAKING, READING, AND WRITING SKILLS OF STUDENTS, INCLUDING STUDENTS FOR WHOM ENGLISH IS NOT THEIR PRIMARY LANGUAGE

37

Skill 4.1: Identifies factors that influence language acquisition, and analyzes ways students' language skills affect their overall development and learning	37
Skill 4.2: Identifies expected stages and patterns of second-language acquisition, including analyzing factors that affect second-language acquisition	39
Skill 4.3: Identifies approaches that are effective in promoting English Language Learners' development of English language proficiency, including adapting teaching strategies and consulting and collaborating with teachers in the ESL program	40
Skill 4.4: Recognizes the role of oral language development, including vocabulary development, and the role of the alphabetic principle, including phonemic awareness and other phonological skills, in the development of English literacy; and identifies expected stages and patterns in English literacy development	43
Skill 4.5: Identifies factors that influence students' literacy development, and demonstrating knowledge of research-validated instructional strategies for addressing the literacy needs of students at all stages of literacy development, including applying strategies for facilitating students' comprehension of texts before, during, and after reading, and using modeling and explicit instruction to teach students how to use comprehension strategies effectively	46
Skill 4.6: Recognizes similarities and differences between the English literacy development of native English speakers and English Language Learners, including how literacy development in the primary language influences literacy development in English, and applies strategies for helping English Language Learners transfer literacy skills in the primary language to English	48
Skill 4.7: Uses knowledge of literacy development to select instructional strategies that help students use literacy skills as tools for learning; that teach students how to use, access, and evaluate information from various resources; and that support students' development of content-area reading skills	49

COMPETENCY 5

UNDERSTAND DIVERSE STUDENT POPULATIONS, AND USE KNOWLEDGE OF DIVERSITY WITHIN THE SCHOOL AND THE COMMUNITY TO ADDRESS THE NEEDS OF ALL LEARNERS, TO CREATE A SENSE OF COMMUNITY AMONG STUDENTS, AND TO PROMOTE STUDENTS' APPRECIATION OF AND RESPECT FOR INDIVIDUALS AND GROUPS 51

Skill 5.1: Recognizes appropriate strategies for teachers to use to enhance their own understanding of students (e.g., learning about students' family situations, cultural backgrounds, individual needs) and to promote a sense of community among diverse groups in the classroom 51

Skill 5.2: Applies strategies for working effectively with students from all cultures, students of both genders, students from various socioeconomic circumstances, students from homes where English is not the primary language, and students whose home situations involve various family arrangements and lifestyles 53

Skill 5.3: Applies strategies for promoting students' understanding and appreciation of diversity and for using diversity that exists within the classroom and the community to enhance all students' learning 55

Skill 5.4: Analyzes how classroom environments that respect diversity promote positive student experiences 56

COMPETENCY 6

UNDERSTAND THE CHARACTERISTICS AND NEEDS OF STUDENTS WITH DISABILITIES, DEVELOPMENTAL DELAYS, AND EXCEPTIONAL ABILITIES (INCLUDING GIFTED AND TALENTED STUDENTS); AND USE THIS KNOWLEDGE TO HELP STUDENTS REACH THEIR HIGHEST LEVELS OF ACHIEVEMENT AND INDEPENDENCE..... 57

Skill 6.1: Demonstrates awareness of types of disabilities, developmental delays, and exceptional abilities and of the implications for learning associated with these differences 57

Skill 6.2: Applies criteria and procedures for evaluating, selecting, creating, and modifying materials and equipment to address individual special needs, and recognizing the importance of consulting with specialists to identify appropriate materials and equipment, including assistive technology, when working with students with disabilities, developmental delays, or exceptional abilities 58

Skill 6.3: Identifies teacher responsibilities and requirements associated with referring students who may have special needs and with developing and implementing Individualized Education Plans (IEPs), and recognizes appropriate ways to integrate goals from IEPs into instructional activities and daily routines 60

Skill 6.4: Demonstrates knowledge of basic service delivery models (e.g., inclusion models) for students with special needs, and identifies strategies and resources (e.g., special education staff) that help support instruction in inclusive settings 62

Skill 6.5: Demonstrates knowledge of strategies to ensure that students with special needs and exceptional abilities are an integral part of the class and participate to the greatest extent possible in all classroom activities 63

DOMAIN II

INSTRUCTION AND ASSESSMENT 65

COMPETENCY 7

UNDERSTAND HOW TO STRUCTURE AND MANAGE A CLASSROOM TO CREATE A SAFE, HEALTHY, AND SECURE LEARNING ENVIRONMENT 71

Skill 7.1: Analyzes relationships between classroom management strategies (e.g., in relation to discipline, student decision making, establishing and maintaining standards of behavior) and student learning, attitudes, and behaviors..... 71

Skill 7.2: Recognizes issues related to the creation of a classroom climate (e.g., with regard to shared values and goals, shared experiences, patterns of communication)..... 73

Skill 7.3: Demonstrates knowledge of basic socialization strategies, including how to support school interaction and facilitate conflict resolution among learners, and applies strategies for instructing students on the principles of honesty, personal responsibility, respect for others, observance of laws and rules, courtesy, dignity, and other traits that will enhance the quality of their experiences in, and contributions to, the class and the greater community 74

Skill 7.4: Organizes a daily schedule that takes into consideration and capitalizes on the developmental characteristics of learners ... 76

Skill 7.5: Evaluates, selects, and uses various methods for managing transitions (e.g., between lessons, when students enter and leave the classroom), and handling routine classroom tasks and unanticipated situations 77

Skill 7.6: Analyzes the effects of the physical environment, including different spatial arrangements, on student learning and behavior..... 79

COMPETENCY 8

UNDERSTAND CURRICULUM DEVELOPMENT, AND APPLY KNOWLEDGE OF FACTORS AND PROCESSES IN CURRICULAR DECISION MAKING 81

Skill 8.1: Applies procedures used in classroom curricular decision making (e.g., evaluating the current curriculum, defining scope and sequence) 81

Skill 8.2: Evaluates curriculum materials and resources for their effectiveness in addressing the developmental and learning needs of given students 83

Skill 8.3: Applies strategies for modifying curriculum based on learner characteristics 84

Skill 8.4: Applies strategies for integrating curricula (e.g., incorporating interdisciplinary themes) 86

COMPETENCY 9

UNDERSTAND THE INTERRELATIONSHIP BETWEEN ASSESSMENT AND INSTRUCTION AND HOW TO USE FORMAL AND INFORMAL ASSESSMENT TO LEARN ABOUT STUDENTS, PLAN INSTRUCTION, MONITOR STUDENT UNDERSTANDING IN THE CONTEXT OF INSTRUCTION, AND MAKE EFFECTIVE INSTRUCTIONAL MODIFICATIONS 87

Skill 9.1: Demonstrates understanding that assessment and instruction must be closely integrated..... 87

Skill 9.2: Demonstrates familiarity with basic assessment approaches, including the instructional advantages and limitations of various assessment instruments and techniques (e.g., portfolio, teacher-designed classroom tests, performance assessment, peer assessment, student self-assessment, teacher observation, criterion-referenced test, norm-referenced test)..... 88

Skill 9.3: Uses knowledge of the different purposes (e.g., screening, diagnosing, comparing, monitoring) of various assessments and knowledge of assessment concepts (e.g., validity, reliability, bias) to select the most appropriate assessment instrument or technique for a given situation 92

Skill 9.4: Uses rubrics, and interprets and uses information derived from a given assessment..... 96

Skill 9.5: Recognizes strategies for planning, adjusting, or modifying lessons and activities based on assessment results 97

COMPETENCY 10

UNDERSTAND INSTRUCTIONAL PLANNING AND APPLY KNOWLEDGE OF PLANNING PROCESSES TO DESIGN EFFECTIVE INSTRUCTION THAT PROMOTES THE LEARNING OF ALL STUDENTS..... 100

Skill 10.1: Recognizes key factors to consider in planning instruction (e.g., New York State Learning Standards for students, instructional goals and strategies, the nature of the content and skills to be taught, students' characteristics and prior experiences, students' current knowledge and skills as determined by assessment results, available time and other resources)..... 100

Skill 10.2: Analyzes and applies given information about specific planning factors (see above statement) to define lesson and unit objectives, select appropriate instructional approach(es) to use in a given lesson (e.g., discovery learning, explicit instruction), determine the appropriate sequence of instruction and learning for given content or learners within a lesson and unit, and develop specific lesson and unit plans..... 101

Skill 10.3: Identifies the background knowledge and prerequisite skills required by a given lesson, and applying strategies for determining students’ readiness for learning (e.g., through teacher observation, student self-assessment, pre-testing) and for ensuring students’ success in learning (e.g., by planning sufficient time to pre-teach key concepts or vocabulary, by planning differentiated instruction) 104

Skill 10.4: Uses assessment information before, during, and after instruction to modify plans and to adapt instruction for individual learners 105

Skill 10.5: Analyzes a given lesson or unit plan in terms of organization, completeness, feasibility, etc. 106

Skill 10.6: Applies strategies for collaborating with others to plan and implement instruction 108

**COMPETENCY 11
UNDERSTAND VARIOUS INSTRUCTIONAL APPROACHES, AND USE THIS KNOWLEDGE TO FACILITATE STUDENT LEARNING 110**

Skill 11.1: Analyzes the uses, benefits, or limitations of a specific instructional approach (e.g., direct instruction, cooperative learning, interdisciplinary instruction, exploration, discovery learning, independent study, lectures, hands-on activities, peer tutoring, technology-based approach, various discussion methods such as guided discussion, various questioning methods) in relation to given purposes and learners 110

Skill 11.2: Recognizes appropriate strategies for varying the role of the teacher (e.g., working with students as instructor, facilitator, observer; working with other adults in the classroom) in relation to the situations and the instructional approach used 114

Skill 11.3: Applies procedures for promoting positive and productive small-group interactions (e.g., establishing rules for working with other students in cooperative learning situations) 115

Skill 11.4: Compares instructional approaches in terms of teacher and student responsibilities, expected student outcomes, usefulness for achieving instructional purposes, etc. 116

**COMPETENCY 12
UNDERSTAND PRINCIPLES AND PROCEDURES FOR ORGANIZING AND IMPLEMENTING LESSONS, AND USE THIS KNOWLEDGE TO PROMOTE STUDENT LEARNING AND ACHIEVEMENT 117**

Skill 12.1: Evaluates strengths and weaknesses of various strategies for organizing and implements a given lesson (e.g., in relation to introducing and closing a lesson, using inductive and deductive instruction, building on students’ prior knowledge and experiences) 117

Skill 12.2: Recognizes the importance of organizing instruction to include multiple strategies for teaching the same context so as to provide the kind and amount of instruction and practice needed by each student in the same class 119

Skill 12.3: Evaluates various instructional resources (e.g., textbooks and other print resources, primary documents and artifacts, guest speakers, films and other audiovisual materials, computers and other technological resources) in relation to given content, learners (including those with special needs), and goals 122

Skill 12.4: Demonstrates understanding of the developmental characteristics of students (e.g., with regard to attention and focus, writing or reading for extended periods of time) when organizing and implementing lessons 123

Skill 12.5: Applies strategies for adjusting lessons in response to student performance and student feedback (e.g., responding to student comments regarding relevant personal experiences, changing the pace of a lesson as appropriate) 125

**COMPETENCY 13
UNDERSTAND THE RELATIONSHIP BETWEEN STUDENT MOTIVATION AND ACHIEVEMENT AND HOW MOTIVATIONAL PRINCIPLES AND PRACTICES CAN BE USED TO PROMOTE AND SUSTAIN STUDENT COOPERATION IN LEARNING 127**

Skill 13.1: Distinguishes between motivational strategies that use intrinsic and extrinsic rewards, and identifying the likely benefits and limitations of each approach 127

Skill 13.2: Analyzes the effects of using various intrinsic and extrinsic motivational strategies in given situations 128

Skill 13.3: Recognizes factors (e.g., expectations, methods of providing specific feedback) and situations that tend to promote or diminish student motivation 129

Skill 13.4: Recognizes the relationship between direct engagement in learning and students’ interest in lessons and activities..... 130

Skill 13.5: Applies procedures for enhancing student interest and helping students find their own motivation (e.g., relates concepts presented in the classroom to students’ everyday experiences; encourages students to ask questions, initiate activities, and pursue problems that are meaningful to them; highlighting connections between academic learning and the workplace)..... 131

Skill 13.6: Recognizes the importance of encouragement in sustaining students’ interest and cooperation in learning 133

Skill 13.7: Recognizes the important of utilizing peers (e.g., as peer mentors, in group activities) to benefit students’ learning and to sustain their interest and cooperation 135

COMPETENCY 14

UNDERSTAND COMMUNICATION PRACTICES THAT ARE EFFECTIVE IN PROMOTING STUDENT LEARNING AND CREATING A CLIMATE OF TRUST AND SUPPORT IN THE CLASSROOM, AND HOW TO USE A VARIETY OF COMMUNICATION MODES TO SUPPORT INSTRUCTION..... 136

Skill 14.1: Analyzes how cultural, gender, and age differences affect communication in the classroom (e.g., eye contact, use of colloquialisms, interpretation of body language), and recognizing effective methods for enhancing communication with all students, including being a thoughtful and responsive listener 136

Skill 14.2: Applies strategies to promote effective classroom interactions that support learning, including teacher-student and student-student interactions 137

Skill 14.3: Analyzes teacher-student interactions with regard to communication issues (e.g., those relating to communicating expectations, providing feedback, building student self-esteem, modeling appropriate communication techniques for specific situations)..... 138

Skill 14.4: Recognizes purposes for questioning (e.g., encouraging risk taking and problem solving, maintaining student engagement, facilitating factual recall, assessing student understanding), and selecting appropriate questioning techniques 139

Skill 14.5: Applies strategies for adjusting communication to enhance student understanding (e.g., by providing examples, simplifying a complex problem, using verbal and nonverbal modes of communication, using audiovisual and technological tools of communication) 141

Skill 14.6: Demonstrates knowledge of the limits of verbal understanding of students at various ages and with different linguistic backgrounds and strategies for ensuring that these limitations do not become barriers to learning (e.g., by linking to known language; by saying things in more than one way; by supporting verbalization with gestures, physical demonstrations, dramatizations, and media and manipulatives 142

COMPETENCY 15

UNDERSTAND USES OF TECHNOLOGY, INCLUDING INSTRUCTIONAL AND ASSISTIVE TECHNOLOGY, IN TEACHING AND LEARNING; AND APPLY THIS KNOWLEDGE TO USE TECHNOLOGY EFFECTIVELY AND TO TEACH STUDENTS HOW TO USE TECHNOLOGY TO ENHANCE THEIR LEARNING 143

Skill 15.1: Demonstrates knowledge of educational uses of various technology tools, such as calculators, software applications, input devices (e.g., keyboard mouse, scanner, modem, CD-ROM), and the Internet..... 143

Skill 15.2: Recognizes purposes and uses of common types of assistive technology (e.g., amplification devices, communication boards) 146

Skill 15.3: Recognizes issues related to the appropriate use of technology (e.g., privacy issues, security issues, copyright laws and issues, ethical issues regarding the acquisition and use of information from technology resources), and identifying procedures that ensure the legal and ethical use of technology resources 147

Skill 15.4: Identifies and addresses equity issues related to the use of technology in the classroom (e.g., equal access to technology for all students) 148

Skill 15.5: Identifies effective instructional uses of current technology in relation to communication (e.g., audio and visual recording and display devices)..... 149

Skill 15.6: Applies strategies for helping students acquire, analyze, and evaluate electronic information (e.g., locating specific information on the Internet and verifying its accuracy and validity) 152

Skill 15.7: Evaluates students’ technologically produced products using established criteria related to content, delivery, and the objective(s) of the assignment 154

DOMAIN III THE PROFESSIONAL ENVIRONMENT 157

COMPETENCY 16 UNDERSTAND THE HISTORY, PHILOSOPHY, AND ROLE OF EDUCATION IN NEW YORK STATE AND THE BROADER SOCIETY 160

Skill 16.1: Analyzes relationships between education and society (e.g., schools reflecting and affecting social values, historical dimensions of the school-society relationship, the role of education in a democratic society, the role of education in promoting equity in society) 160

Skill 16.2: Demonstrates knowledge of the historical foundations of education in the United States and of past and current philosophical issues in education (e.g., teacher-directed versus child-centered instruction) 162

Skill 16.3: Applies procedures for working collaboratively and cooperatively with various members of the New York State educational system to accomplish a variety of educational goals 163

Skill 16.4: Analyzes differences between school-based and centralized models of decision making..... 164

Skill 16.5: Applies knowledge of the roles and responsibilities of different components of the education system in New York (e.g., local school boards, Board of Regents, district superintendents, school principals, Boards of Cooperative Educational Services [BOCES], higher education, unions, professional organizations, parent organizations) 165

COMPETENCY 17 UNDERSTAND HOW TO REFLECT PRODUCTIVELY ON ONE’S OWN TEACHING PRACTICE AND HOW TO UPDATE ONE’S PROFESSIONAL KNOWLEDGE, SKILLS, AND EFFECTIVENESS 167

Skill 17.1: Assesses one’s own teaching strengths and weaknesses..... 167

Skill 17.2: Uses different types of resources and opportunities (e.g., journals, in-service programs, continuing education, higher education, professional organizations, other educators) **to enhance one’s teaching effectiveness** 168

Skill 17.3: Applies strategies for working effectively with members of the immediate school community (e.g., colleagues, mentor, supervisor, special needs professionals, principal, building staff) **to increase one’s knowledge or skills in a given situation** 170

Skill 17.4: Analyzes ways of evaluating and responding to feedback (e.g., from supervisors, students, parents, colleagues) 171

COMPETENCY 18 UNDERSTAND THE IMPORTANCE OF AND APPLY STRATEGIES FOR PROMOTING PRODUCTIVE RELATIONSHIPS AND INTERACTIONS AMONG THE SCHOOL, HOME, AND COMMUNITY TO ENHANCE STUDENT LEARNING 171

Skill 18.1: Identifies strategies for initiating and maintaining effective communication between the teacher and parents or other caregivers, and recognizes factors that may facilitate or impede communication in given situations (including parent-teacher conferences) 171

Skill 18.2: Identifies a variety of strategies for working with parents, caregivers, and others to help students from diverse backgrounds reinforce in-school learning outside the school environment 174

Skill 18.3: Applies strategies for using community resources to enrich learning experiences 175

Skill 18.4: Recognizes various ways in which school personnel, local citizens, and community institutions (e.g., businesses, cultural institutions, colleges and universities, social agencies) can work together to promote a sense of neighborhood and community 176

COMPETENCY 19

UNDERSTAND RECIPROCAL RIGHTS AND RESPONSIBILITIES IN SITUATIONS INVOLVING INTERACTIONS BETWEEN TEACHERS AND STUDENTS, PARENTS, GUARDIANS, COMMUNITY MEMBERS, COLLEAGUES, SCHOOL ADMINISTRATORS, AND OTHER SCHOOL PERSONNEL

..... 178

Skill 19.1: Applies knowledge of laws related to students’ rights in various situations (e.g., in relation to due process, discrimination, harassment, confidentiality, discipline, privacy) 178

Skill 19.2: Applies knowledge of a teacher’s rights and responsibilities in various situations (e.g., in relation to students with disabilities, potential abuse, safety issues) 182

Skill 19.3: Applies knowledge of parents’ rights and responsibilities in various situations (e.g., in relation to student records, school attendance) 182

Skill 19.4: Analyzes the appropriateness of a teacher’s response to a parent, a community member, another educator, or a student in various situations (e.g., when dealing with differences of opinion in regard to current or emerging policy) 184

SAMPLE TEST

Student Development and Learning 187

Instruction and Assessment 193

The Professional Environment 206

Answer Key 212

Rigor Table 213

Sample Test with Rationales: Student Development and Learning 214

Sample Test with Rationales: Instruction and Assessment 227

Sample Test with Rationales: The Professional Environment 256

Sample Written Assignment 265

Guidelines for Crisis Management and Emergency Response 268

Crisis Management and Intervention Planning 268

ASSESSMENT OF TEACHING SKILLS— PERFORMANCE (ATS-P)

What Is the ATS-P? 274

What Should the Recorded Lesson Include? 274

BONUS SAMPLE TEST

Scientific, Mathematical, and Technological Processes	281
Answer Key	285
Rigor Table	285
Sample Test with Rationales: Scientific, Mathematical, and Technological Processes	286
Historical and Social Scientific Awareness	293
Answer Key	297
Rigor Table	297
Sample Test with Rationales: Historical and Social Scientific Awareness	298
Artistic Expression and the Humanities	305
Answer Key	308
Rigor Table	308
Sample Test with Rationales: Artistic Expression and the Humanities	309
Written Analysis and Expression	314
Answer Key	318
Rigor Table	318
Sample Test with Rationales: Written Analysis and Expression	319