

**Table of Contents**

**DOMAIN I. READING INSTRUCTION AND LANGUAGE ARTS**

**COMPETENCY 1.0 UNDERSTAND THE READING PROCESS**

Skill 1.1 Recognize reading as a process of constructing meaning through dynamic interaction among reader, text, and the context of the reading situation ..... 1

Skill 1.2 Recognize developmental stages in learning to read ..... 4

Skill 1.3 Analyze factors that affect reading ..... 6

Skill 1.4 Recognize the oral language foundation of reading and the interrelatedness of reading, writing, listening, and speaking ..... 7

**COMPETENCY 2.0 UNDERSTAND PHONOLOGICAL SKILLS AND STRATEGIES RELATED TO READING**

Skill 2.1 Demonstrate how to foster students' phonemic awareness through rhyming, blending, and segmenting sounds in words ..... 10

Skill 2.2 Apply knowledge of instruction in letter-sound correspondence and systematic, explicit phonics ..... 12

Skill 2.3 Apply strategies to promote students' rapid, automatic decoding through the application of phonics skills ..... 13

**COMPETENCY 3.0 UNDERSTAND SKILLS AND STRATEGIES RELATED TO WORD IDENTIFICATION AND VOCABULARY DEVELOPMENT**

Skill 3.1 Apply knowledge of word identification strategies ..... 14

Skill 3.2 Implement strategies to help students master high-frequency and irregular sight words ..... 17

Skill 3.3 Apply strategies for increasing students' vocabulary knowledge and their ability to use vocabulary knowledge in new contexts..... 17

## TEACHER CERTIFICATION STUDY GUIDE

---

---

### **COMPETENCY 4.0 UNDERSTAND SKILLS AND STRATEGIES INVOLVED IN READING COMPREHENSION**

Skill 4.1	Recognize factors affecting reading comprehension .....	21
Skill 4.2	Demonstrate knowledge of literal, inferential, and evaluative comprehension skills .....	23
Skill 4.3	Apply strategies to facilitate comprehension before, during, and after reading .....	26

### **COMPETENCY 5.0 UNDERSTAND READING INSTRUCTION AND STUDY SKILLS IN THE CONTENT AREAS**

Skill 5.1	Apply knowledge of reading strategies to promote learning in the content area .....	28
Skill 5.2	Apply strategies for reading for different purposes .....	29
Skill 5.3	Understand the teaching of study skills in the content areas .....	30

### **COMPETENCY 6.0 UNDERSTAND SKILLS AND STRATEGIES INVOLVED IN WRITING FOR VARIOUS PURPOSES**

Skill 6.1	Recognize developmental stages of writing, including the use of pictures and developmental spelling.....	33
Skill 6.2	Analyze factors to consider in writing for a variety of audiences and purposes, including factors related to selecting topics and modes of written expression.....	35
Skill 6.3	Apply knowledge of the writing process.....	36
Skill 6.4	Apply knowledge of characteristic features and requirements associated with written materials in various formats and modes .....	37
Skill 6.5	Apply a variety of writing strategies .....	38

## TEACHER CERTIFICATION STUDY GUIDE

---

---

### **COMPETENCY 7.0 UNDERSTAND WRITTEN WORK IN RELATION TO ITS STATED PURPOSE; EVALUATE AREAS IN NEED OF IMPROVEMENT; AND REVISE WRITTEN TEXTS FOR STYLE, CLARITY, AND ORGANIZATION**

- Skill 7.1 Evaluate the effectiveness of written material in relation to a given purpose ..... 41
- Skill 7.2 Apply revision strategies to improve the unity and organization of written material ..... 41
- Skill 7.3 Apply revision strategies to improve the clarity, precision, and effectiveness of written material through changes in word choice..... 44

### **COMPETENCY 8.0 APPLY KNOWLEDGE OF ENGLISH GRAMMAR AND MECHANICS IN REVISING TEXTS**

- Skill 8.1 Revise texts to correct errors in sentence structure..... 45
- Skill 8.2 Revise texts to correct errors in subject-verb agreement and pronoun-antecedent agreement ..... 46
- Skill 8.3 Use standard verb forms, pronouns, adverbs, adjectives, and plural and possessive forms of nouns in context..... 47
- Skill 8.4 Revise texts to correct errors in punctuation and capitalization ..... 52

### **COMPETENCY 9.0 UNDERSTAND SKILLS AND STRATEGIES INVOLVED IN LISTENING FOR VARIOUS PURPOSES**

- Skill 9.1 Evaluate listening strategies in terms of their appropriateness for various contexts and purposes..... 58
- Skill 9.2 Analyze barriers to effective listening and apply strategies for active listening ..... 59
- Skill 9.3 Apply knowledge of factors that affect the ability to listen effectively and to construct meaning from oral messages in various listening situations ..... 60

## TEACHER CERTIFICATION STUDY GUIDE

---

---

### COMPETENCY 10.0 UNDERSTAND SKILLS AND STRATEGIES INVOLVED IN SPEAKING FOR VARIOUS PURPOSES

Skill 10.1	Analyze ways in which features of oral language and nonverbal cues affect communication in various situations.....	61
Skill 10.2	Apply methods for organizing and presenting thoughts, feelings, ideas, and information for different audiences and purposes .....	63
Skill 10.3	Recognize how cultural or linguistic factors may affect communication .....	63
Skill 10.4	Apply knowledge of language conventions appropriate to various social situations .....	64

TEACHER CERTIFICATION STUDY GUIDE

**DOMAIN II.**

**LITERATURE AND THE ARTS**

**COMPETENCY 11.0 UNDERSTAND CHARACTERISTIC FEATURES OF CHILDREN'S LITERATURE AND STRATEGIES TO PROMOTE LITERARY ANALYSIS**

Skill 11.1 Recognize major works, authors, and genres of children's literature ..... 65

Skill 11.2 Apply strategies to develop students' enjoyment of and responses to literature ..... 70

Skill 11.3 Analyze the use of children's literature to promote appreciation of diversity ..... 71

Skill 11.4 Recognize and apply elements of literary analysis and criticism ..... 71

**COMPETENCY 12.0 UNDERSTAND CONCEPTS, TECHNIQUES, AND MATERIALS ASSOCIATED WITH THE VISUAL ARTS AND ANALYZE WORKS OF VISUAL ART**

Skill 12.1 Apply knowledge of basic tools, techniques, and technologies used to create different types of artwork ..... 74

Skill 12.2 Explain how the illusion of space is created in two-dimensional works of art..... 76

Skill 12.3 Analyze works of art in terms of how specific effects are achieved ..... 77

## TEACHER CERTIFICATION STUDY GUIDE

---

### **COMPETENCY 13.0 UNDERSTAND CONCEPTS, TECHNIQUES, AND MATERIALS RELATED TO MUSIC, DRAMA, AND DANCE AND ANALYZE WORKS OF MUSIC, DRAMA, AND DANCE**

Skill 13.1	Compare various types of musical instruments .....	78
Skill 13.2	Recognize basic dramatic and theatrical forms .....	79
Skill 13.3	Define and apply terms related to music, drama, and dance.....	82
Skill 13.4	Relate characteristics of music to musical effects produced .....	84
Skill 13.5	Analyze ways in which technical aspects of drama or dance affect the message or overall impression created by a performance .....	87

### **COMPETENCY 14.0 UNDERSTAND THE ARTS IN RELATION TO HISTORY AND CULTURE AND RECOGNIZE CONNECTIONS AMONG THE ARTS**

Skill 14.1	Examine the role of the arts in various cultures and historical periods.....	88
Skill 14.2	Examine ways in which the arts can be used to explore other aspects of various cultures .....	89
Skill 14.3	Recognize interrelationships among the arts.....	98
Skill 14.4	Recognize connections between the arts and other disciplines .....	101

# TEACHER CERTIFICATION STUDY GUIDE

---

---

## DOMAIN III.

## MATHEMATICS

### COMPETENCY 15.0 UNDERSTAND FORMAL AND INFORMAL REASONING PROCESSES, INCLUDING LOGIC AND SIMPLE PROOFS, AND APPLY PROBLEM-SOLVING TECHNIQUES AND STRATEGIES IN A VARIETY OF CONTEXTS

Skill 15.1	Analyze information to solve a problem.....	102
Skill 15.2	Apply inductive reasoning to make mathematical conjectures .....	104
Skill 15.3	Draw valid conclusions based on stated conditions.....	105
Skill 15.4	Judge the validity of mathematical arguments.....	110

### COMPETENCY 16.0 UNDERSTAND VARIOUS APPROACHES USED TO EXPLORE MATHEMATICAL IDEAS AND SOLVE PROBLEMS

Skill 16.1	Evaluate the appropriateness of using estimation to solve a given problem.....	111
Skill 16.2	Select an appropriate model to illustrate a given problem.....	112
Skill 16.3	Evaluate the usefulness of a specific model or problem-solving strategy for exploring a mathematical idea or problem .....	113
Skill 16.4	Simplify problems to facilitate a solution.....	115

### COMPETENCY 17.0 UNDERSTAND MATHEMATICAL COMMUNICATION

Skill 17.1	Use mathematical notation to represent a relationship.....	116
Skill 17.2	Use appropriate models, diagrams, tables, graphs, and symbols to represent mathematical concepts.....	118
Skill 17.3	Use appropriate vocabulary to express mathematical ideas and relationships .....	119

## TEACHER CERTIFICATION STUDY GUIDE

---

---

### COMPETENCY 18.0 UNDERSTAND AND APPLY SKILLS AND CONCEPTS RELATED TO NUMBERS AND NUMERATION

Skill 18.1	Understand number sense and number relations.....	120
Skill 18.2	Analyze the number properties used in operational algorithms .....	123
Skill 18.3	Use ratios, proportions, and percents to model and solve problems.....	137
Skill 18.4	Understand the relations among whole numbers, fractions, decimals, and percents.....	141
Skill 18.5	Solve problems using equivalent forms of numbers .....	142

### COMPETENCY 19.0 UNDERSTAND AND APPLY THE PRINCIPLES AND PROPERTIES OF LINEAR ALGEBRAIC RELATIONS AND FUNCTIONS

Skill 19.1	Analyze mathematical relationships and patterns using tables, verbal rules, equations, and graphs.....	143
Skill 19.2	Apply knowledge of how algebraic expressions are used to represent real-world relationships and patterns.....	144
Skill 19.3	Use algebraic functions to describe graphs, plot points, and determine slopes .....	146
Skill 19.4	Perform algebraic operations to solve equations and inequalities .....	152

### COMPETENCY 20.0 UNDERSTAND AND APPLY GEOMETRIC PRINCIPLES AND PROPERTIES

Skill 20.1	Apply the concepts of similarity and congruence to model and solve real-world problems .....	161
Skill 20.2	Apply knowledge of basic geometric figures to solve real-world problems involving more complex patterns .....	165
Skill 20.3	Apply inductive and deductive reasoning to solve real-world problems in geometry .....	174

## TEACHER CERTIFICATION STUDY GUIDE

---

### COMPETENCY 21.0 UNDERSTAND AND APPLY CONCEPTS, PRINCIPLES, SKILLS AND PROCEDURES RELATED TO MEASUREMENT, STATISTICS, AND PROBABILITY

Skill 21.1	Estimate and convert measurements using standard and nonstandard units.....	175
Skill 21.2	Solve measurement problems involving volume, time, or speed.....	179
Skill 21.3	Interpret graphic and non-graphic representations of frequency distributions, percentiles, and measures of central tendency .....	183
Skill 21.4	Determine probabilities and make predictions based on probabilities .....	189

### COMPETENCY 22.0 UNDERSTAND MATHEMATICS INSTRUCTION FOR STUDENTS IN THE ELEMENTARY GRADES

Skill 22.1	Choose teaching techniques appropriate to given topics of mathematical study and needs of students .....	192
Skill 22.2	Analyze students' work in mathematics to determine areas of instructional need .....	194
Skill 22.3	Create classroom situations in which students learn to use various mathematical skills and concepts, including problem solving, reasoning, and logic .....	195
Skill 22.4	Use measurements and other data gathered by students as a basis for classroom activities .....	197
Skill 22.5	Use a variety of tools, technologies, and manipulatives to promote students' understanding of mathematics and ability to engage in problem solving .....	197

TEACHER CERTIFICATION STUDY GUIDE

**DOMAIN IV.**

**SCIENCE**

**COMPETENCY 23.0 UNDERSTAND INTERRELATIONSHIPS BETWEEN THE PHYSICAL AND LIFE SCIENCES AND THE CONNECTIONS AMONG SCIENCE, TECHNOLOGY, AND SOCIETY**

Skill 23.1 Apply principles of mathematics, science, and technology to model a given situation ..... 198

Skill 23.2 Analyze the effects of changes in environmental conditions on plant and animal health, growth, and development..... 199

Skill 23.3 Analyze the effects of human activities on the environment and recognize the benefits and limitations of science and technology ..... 202

Skill 23.4 Recognize the use of science and technology in solving problems related to the effects of human activities on the environment..... 204

**COMPETENCY 24.0 UNDERSTAND AND APPLY THE PRINCIPLES OF LIFE SCIENCE**

Skill 24.1 Analyze relationships among the components of an ecological community ..... 206

Skill 24.2 Recognize factors that contribute to change in organisms and species over time..... 208

Skill 24.3 Analyze processes that contribute to the continuity of life ..... 209

Skill 24.4 Relate concepts in life science to human health..... 212

**COMPETENCY 25.0 UNDERSTAND AND APPLY THE PRINCIPLES OF PHYSICAL SCIENCE**

Skill 25.1 Analyze factors and processes related to atmospheric and celestial phenomena ..... 213

Skill 25.2 Analyze forces that shape the earth's surface ..... 215

Skill 25.3 Distinguish between physical and chemical properties of matter and between physical and chemical changes in matter ..... 221

Skill 25.4 Recognize the physical science principle illustrated in a given situation ..... 224

## TEACHER CERTIFICATION STUDY GUIDE

---

### **COMPETENCY 26.0 APPLY INQUIRY SKILLS AND PROCESSES TO COMMUNICATE SCIENTIFIC INFORMATION AND TO INTERPRET NATURAL PHENOMENA**

Skill 26.1	Formulate a hypothesis and make predictions .....	226
Skill 26.2	Use data presented in one or more graphs, charts, or tables to determine patterns or relationships .....	227
Skill 26.3	Use mathematical rules or formulas to analyze experimental or observational data .....	228
Skill 26.4	Draw conclusions and make generalizations based on examination of experimental results .....	229
Skill 26.5	Evaluate the appropriateness of different types of graphic representations for communicating scientific data .....	230

### **COMPETENCY 27.0 UNDERSTAND PRINCIPLES AND PROCEDURES RELATED TO THE DESIGN AND IMPLEMENTATION OF OBSERVATIONAL AND EXPERIMENTAL SCIENTIFIC INVESTIGATIONS**

Skill 27.1	Distinguish among features of an experimental design .....	232
Skill 27.2	Evaluate the validity of conclusions drawn from scientific experimental investigations .....	232
Skill 27.3	Apply procedures for the care and humane treatment of animals and the safe and appropriate use of laboratory equipment .....	233
Skill 27.4	Evaluate the reasonableness of scientific predictions .....	236

### **COMPETENCY 28.0 UNDERSTAND SCIENCE INSTRUCTION FOR STUDENTS IN THE ELEMENTARY GRADES**

Skill 28.1	Use knowledge of the scientific method to develop students' abilities to identify and communicate a problem and to design, implement, and evaluate a solution .....	238
Skill 28.2	Use a variety of instructional techniques to help all students build understanding about science and technology .....	240
Skill 28.3	Analyze students' work in science to identify instructional needs and develop instruction to address needs .....	241

TEACHER CERTIFICATION STUDY GUIDE

DOMAIN V.

SOCIAL STUDIES

**COMPETENCY 29.0 UNDERSTAND MAJOR IDEAS, ERAS, THEMES, DEVELOPMENTS AND TURNING POINTS IN THE HISTORY OF NEW MEXICO, THE UNITED STATES, AND THE WORLD**

Skill 29.1 Analyze social effects of major developments in world history ..... 243

Skill 29.2 Recognize major political, social, economic, and geographic characteristics of ancient civilizations and analyze connections among these civilizations..... 250

Skill 29.3 Analyze interactions among Native American peoples, Hispanic Americans, and European Americans in New Mexico, the western United States, and Mexico..... 255

Skill 29.4 Recognize the roles of diverse individuals and groups in U.S. social, political, economic, cultural, and religious life ..... 261

**COMPETENCY 30.0 UNDERSTAND BASIC GEOGRAPHIC CONCEPTS AND ANALYZE RELATIONSHIPS AMONG GEOGRAPHY, SOCIETY, AND CULTURE IN THE DEVELOPMENT OF NEW MEXICO, THE UNITED STATES, AND THE WORLD**

Skill 30.1 Analyze ways in which physical processes are continually reshaping the earth's surface ..... 267

Skill 30.2 Analyze the development and interaction of social, cultural, political, and religious systems in different regions of New Mexico, the United States, and the world ..... 269

Skill 30.3 Analyze the effects of human activity on the physical environment..... 274

**COMPETENCY 31.0 UNDERSTAND ANTHROPOLOGICAL, PSYCHOLOGICAL, AND SOCIOLOGICAL CONCEPTS RELATED TO HUMAN DEVELOPMENT AND INTERACTION**

Skill 31.1 Analyze factors that contribute to the development of personal identity ..... 278

## TEACHER CERTIFICATION STUDY GUIDE

---

Skill 31.2 Recognize the roles and functions of social groups and institutions in the United States and analyze their influence on individuals and groups ..... 282

Skill 31.3 Examine processes of social and cultural change ..... 284

### **COMPETENCY 32.0 UNDERSTAND AND APPLY BASIC ECONOMIC AND POLITICAL PRINCIPLES AND CONCEPTS**

Skill 32.1 Recognize the basic structure, fundamental ideas, and accomplishments of the U.S. economic system ..... 287

Skill 32.2 Recognize values, principles, concepts, and key features of the American constitutional democracy ..... 289

Skill 32.3 Compare and analyze different perspectives regarding economic and political issues and policies in New Mexico and the United States ..... 293

Skill 32.4 Analyze relationships between the United States and other nations ..... 295

### **COMPETENCY 33.0 UNDERSTAND THE ROLES, RIGHTS, AND RESPONSIBILITIES OF CITIZENSHIP IN THE UNITED STATES AND RECOGNIZE THE SKILLS, KNOWLEDGE, AND ATTITUDES NECESSARY FOR SUCCESSFUL PARTICIPATION IN CIVIC LIFE**

Skill 33.1 Recognize personal and political rights contained in the Declaration of Independence, U.S. Constitution, New Mexico Constitution, and major civil rights legislation ..... 299

Skill 33.2 Recognize basic features of the U.S. election process and examine the role of political parties, pressure groups, and special interests in the U.S. political system ..... 303

Skill 33.3 Examine ways in which individuals and groups demonstrate social responsibility ..... 307

Skill 33.4 Examine ways in which citizens' participation influences the political process in the United States ..... 307

Skill 33.5 Analyze factors that expanded or limited the role of individuals in U.S. political and civic life in the twentieth century ..... 310

**TEACHER CERTIFICATION STUDY GUIDE**

---

---

**COMPETENCY 34.0 UNDERSTAND AND APPLY SKILLS RELATED TO  
SOCIAL STUDIES, INCLUDING GATHERING,  
ORGANIZING, MAPPING, EVALUATING,  
INTERPRETING, AND DISPLAYING INFORMATION**

Skill 34.1	Evaluate the appropriateness of various sources for meeting specific information needs .....	314
Skill 34.2	Interpret information presented in one or more graphic representations and translate written or graphic information from one form to the other .....	315
Skill 34.3	Differentiate between primary and secondary sources and analyze point of view in a historical text.....	321
Skill 34.4	Apply knowledge related to copyright and correct attribution of sources and authorship .....	322

**COMPETENCY 35.0 UNDERSTAND SOCIAL STUDIES INSTRUCTION FOR  
STUDENTS IN THE ELEMENTARY GRADES**

Skill 35.1	Apply strategies to promote students' inquiry skills, including the use of multiple resources as part of the inquiry/research process.....	323
Skill 35.2	Provide students with opportunities to communicate social studies information and ideas in a variety of ways.....	323
Skill 35.3	Select instructional strategies to promote students' appreciation of the significance and historical development of democratic values and institutions .....	323
Skill 35.4	Analyze learning experiences that promote students' social awareness and appreciation of diverse perspectives and that prompt students to become active participants in local, state, national, and global issues .....	324
Skill 35.5	Implement meaningful learning opportunities in social studies that focus on inquiry, authenticity, and collaboration .....	324
<b>Sample Test</b>	.....	<b>325</b>
<b>Answer Key</b>	.....	<b>346</b>
<b>Rationales for Sample Questions</b>	.....	<b>347</b>