

TEXES Review

*A preparation resource for the Texas Examinations of Educator Standards
Early Childhood - Sixth Grade Generalist and Bilingual Generalist exams.*

Educational Testing Service

- *TEXES Information*
- *Exam Schedules*
- *Preparation Materials*
- *Official Registration*

www.texas.ets.org



Texas Education Agency

- *TEKS & TAKS*
- *Online System*
- *Curriculum News*
- *Laws & Rules*

www.tea.state.tx.us



COEHD TEXES Information

- *Eligibility Form*
- *Review Schedules*
- *Practice Test Schedule*
- *Practice Test Registration*

education.utsa.edu/texas



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Table of Contents

General Information.....	1
TExES Perspective.....	2
Preparation Guide.....	4
Review Checklist.....	8
Content Overview.....	15
English Language Arts and Reading.....	15
Mathematics.....	18
Social Studies.....	21
Science.....	24
Fine Arts.....	28
Health.....	30
Physical Education.....	30
Bilingual Education.....	31
Guided Practice Questions.....	33
Independent Practice Questions.....	38
Bilingual Practice Questions.....	43
Note Page.....	46
Response Form.....	47

General Information

The TExES Review for the EC-6 Generalist and Bilingual Generalist is an informative session designed to assist students in gaining Texas teacher certification. The discussion includes general exam information, test-taking strategies, exam content, and additional preparation resources. The goal of the TExES Review is to create awareness of the content and pedagogical knowledge required to earn a passing score in order for students to be able to prepare according to their individualized needs.

What are the EC-6 Generalist and Bilingual Generalist TExES?

TExES stands for Texas Examinations of Educator Standards. These exams are the state assessments used to measure the general content and teaching knowledge of beginning teachers.

What are the UTSA requirements to take an exam?

To receive permission to take a generalist TExES, COEHD students seeking certification for EC-6 generalist or bilingual generalist must:

- Attend a 3 hour review session.
- Take the practice exam.
- Complete and submit an eligibility form.

More information can be found online at: education.utsa.edu/texes

How do I get credit for attending the mandatory review?

1. Sign in and include your banner ID on the sign-in sheet.
2. Turn in a completed response form located on page 49 of this booklet before leaving.

What content is on the exams?

The exam framework is outlined by domain and competency in the Educational Testing Service (ETS) preparation manuals: www.texas.ets.org/prepMaterials

This content is representative of all subject areas outlined in the Texas Essential Knowledge and Skills (TEKS) for prekindergarten through sixth grade: www.tea.state.tx.us/index2.aspx?id=6148

The only difference between the Generalist and Bilingual Generalist exams is the bilingual education section, the content areas are the same.

How many questions will be asked on the exams?

- The EC-6 Generalist has 140 questions, of which 125 are scored.
- The EC-6 Bilingual Generalist has 200 questions, of which 185 are scored.

Scored questions are not indicated on the exams, therefore be certain to answer all the questions.

What percentage does each domain account for?

EC-6 Generalist

Domain 1: 32% ELAR

Domain 2: 19% Mathematics

Domain 3: 19% Social Studies

Domain 4: 18% Science

Domain 5: 12% Fine Arts, Health, & PE

EC-6 Bilingual Generalist

Domain 1: 32% Bilingual Education

Domain 2: 22% ELAR

Domain 3: 13% Mathematics

Domain 4: 13% Social Studies

Domain 5: 12% Science

Domain 6: 8% Fine Arts, Health, & PE

What question format will be on the exams?

All questions are multiple-choice with 4 answer choices to choose from.

Question length and difficulty level vary throughout the domains.

What types of multiple-choice questions will be included?

- Single Questions: Stand alone questions.
- Questions with Stimulus Materials: A scenario, graphic, or work sample of some kind is used to answer the question.
- Cluster Questions: Multiple questions in regard to the same stimulus material.

Do the exams have a time limit?

Students are allowed 5 hours to complete an exam.

What score is required to pass?

All candidates must receive a minimum score of 240 on a scale of 100 to 300.

What is the best way to prepare?

Students are assessed on information covered throughout their university course work, which makes it difficult to study everything that could possibly be on the exams.

This review presents an efficient method for exam preparation based on identifying the content you are least familiar with and applying effective test-taking strategies to practice questions.

Where can I learn more about test-taking strategies or how to deal with test anxiety?

ETS offers practical advice in their "Study Tips" and "Reducing Test Anxiety" booklets found online free of charge at: www.texas.ets.org/prepMaterials/

TEExES Perspective

Questions on the TExES exams assess beginning teachers' understanding of effective instruction based on theory. Emphasis is placed on being able to create student-centered, authentic educational experiences that promote independent, lifelong learning. Knowledge of effective instruction is directly related to the pedagogy and professional responsibilities exams and as such, PPR strategies may be useful. Certain answer choices can be eliminated when ineffective instructional strategies are described unless a question contains a negator and asks you to identify the ineffective practice. Alternatively, a question may have answer choices that all contain effective instructional strategies and you should evaluate each answer choice in order to find the best fit for the question being asked.

Example: Mrs. Smith uses worksheets from the teacher edition of her social studies textbook, but Mr. Johnson prefers to use hands-on activities such as primary resources and community issues to teach about the textbook concepts. Mrs. Smith thinks worksheets are convenient and knows they cover the material required by the TEKS in preparing students for taking standardized tests. On the other hand, Mr. Johnson knows hands-on activities and connecting learning to students' lives make social studies instruction more engaging than worksheets, while authentic learning also prepares students to take standardized tests.

Mr. Johnson represents the TExES perspective based on educational research. His instructional approaches would be the best choice in the "perfect world" because his teaching practices promote independent learners.

Tip: Do not answer questions based solely on what you have observed in schools or what you might do in your future classroom. Consider your understanding of effective teaching practices and appropriate strategies for building independent learners.

Effective Teaching Situations

- **Create Independent Learners:** In response to an error the teacher asks a student, "How did you solve this problem?"
- **Support Student-Centered Learning:** Students research aspects of Texas History using primary resources.
- **Use Hands-On Experiences:** Observations of a bird nesting and rearing its young are recorded in science journals.
- **Incorporate Modeling and Demonstrations:** Teacher makes predictions about a story during a class read aloud.
- **Set a Purpose for Learning:** Class creates an anticipation guide before reading an expository text.
- **Allow Group Work:** Students use vinegar and baking soda to simulate volcanic activity in groups of 4.
- **Focus on Educational Benefit:** Students learn about world geography by examining the tags of purchased goods.
- **Build on Prior Knowledge:** Students use a K-W-L chart to brainstorm what they already know about mammals.
- **Examine Different Perspectives:** Students write journal entries as though they are living in Ancient Greece.
- **Assess Learning and Teaching:** Teacher observes students having difficulty and plans a lesson to reteach the content.
- **Relate Learning to Real Life:** Students record amount of trash disposed of in a week and determine ways to reduce.
- **Individualize Instruction:** A student refusing to dissect a worm is allowed to complete the assignment virtually.
- **Use Teachable Moments:** Students ask, "Why don't we have school on Monday?" Teacher discusses Memorial Day.
- **Promote Higher Order Thinking Skills:** Teacher asks students to write an alternative ending to a fairy tale.
- **Move from Concrete to Abstract:** Before algorithms, students use base ten blocks to practice carrying in addition.
- **Communicate with Families:** Teacher suggests parents read to their children every day and other informal activities.
- **Professional Collaboration:** Teacher plans a cultural unit with the assistance of the local cultural museum curator.

Ineffective Teaching Situations

- **Create Dependent Learners:** Teacher tells a student, "This answer is incorrect, use the formula $l \times w \times h = V$."
- **Support Teacher-Centered Learning:** Students listen while the teacher lectures about Texas History.

TEGES Perspective

- **Use Worksheets:** Students are given a homework packet of worksheets and reminded it is due by Friday.
- **Incorporate Teacher Explanations:** Teacher tells the meanings of unfamiliar words before a class read aloud.
- **Emphasize Memorization of Dates and Facts:** A unit test requires students fill in a timeline with historical events.
- **Push Competition:** Kickball team captains choose their teams and then the teacher keeps score during the game.
- **Use Extrinsic Rewards:** Students buy a prize from the treasure box after earning money for good behavior.
- **Use Videos to Teach Content:** Teacher plays a documentary about landfills and society's need to reduce waste.
- **Disregard Assignments:** A student refusing to dissect a worm is allowed to read a book quietly during science.
- **Use Timed Tests and Pretests:** Students complete mad minute math quizzes several times each month.
- **Promote Lower Level Thinking Skills:** Teacher asks students to summarize their favorite fairy tale.
- **Embarrass or Ridicule Students:** Teacher says, "Still no pencils? I sent a note home, now I'll have to call your mom."
- **Dismiss Modifications or Accommodations:** Teacher plans an activity that is inaccessible to a special needs student.

Preparation Guide

There is no single way to prepare for the certification exams. The following suggestions are offered as a starting point in determining study requirements and strategies to best meet the individual needs of diverse learners. Preparation, as a key component of success, is crucial and students are encouraged to determine what works for them in order to ensure their own readiness to take an exam.

Step 1: Learn What the Exam May Include

Step 2: Assess How Well You Know the Content and Study What You Don't Know

Step 3: Answer Practice Questions Using Effective Test-Taking Strategies

Resource 1

Educational Testing Service (ETS) Preparation Manuals

Preparation manuals for the generalist (191) and the bilingual generalist (192) describe the expectations of beginning teachers in a series of statements called competencies and descriptives. www.texas.ets.org/prepMaterials

Example: Competency 001 (Oral Language) The teacher understands the importance of oral language, knows the developmental processes of oral language, and provides the students with varied opportunities to develop listening and speaking skills.

The beginning teacher:

- A. Knows basic linguistic concepts (e.g. phonemes, segmentation) and the developmental stages in the acquisition of oral language - including phonology, semantics, syntax, and pragmatics - and recognizes that individual variations occur within and across languages.
- B. Plans and implements systematic oral language instruction based on informal and formal assessment of all students, including English-language learners, oral language development and addresses students' individual needs, strengths, and interests.
- C. Recognizes when speech or language delays or differences warrant in-depth evaluations and additional help or ...

Tip: Skim to familiarize yourself with the use of terminology and the extent of potential content included on the exam.

Resource 2

Texas Essential Knowledge and Skills (TEKS)

State curriculum guidelines provide further insight into exam content. Educators are expected to be knowledgeable in the areas they will be certified to teach, therefore prekindergarten through 6th grade content is all eligible to be incorporated into questions on the exams. www.tea.state.tx.us/index2.aspx?id=6148

Example: Kindergarten English Language Arts and Reading. Students understand how English is written and printed. Students are expected to: (A) recognize that spoken words can be represented by print for communication; (B) identify upper- and lower-case letters; (C) demonstrate the one-to-one correspondence between a spoken word and a printed word in text;

Tip: Review grade levels you are least interested in teaching and content areas that are unfamiliar or more difficult.

Resource 3

TEExES Practice Test

The practice test is a useful way to assess your knowledge and test-taking abilities. Register for and take the practice test at UTSA, then use your scores to determine areas of weakness. If you perform poorly in one section

of the practice test consider focusing your studies on content within that specific area. Alternatively, if you find you have missed several questions within each of the sections consider revisiting effective test-taking strategies. Oftentimes, students miss questions because they have not read the questions and answer choices carefully.

Resource 4

TE_xES Review Checklist

The checklist includes terminology and concepts from the ETS competencies and descriptives. This checklist is designed to provide a way of overviewing the general topics possibly on an exam in order to self-assess which direction you should take for further study. Certain topics may be repeated and/or overlap within the checklist due to the repetitive format of the ETS standards. For elaborated discussion, refer to the ETS prep manuals mentioned as resource 1.

Tip: Ask yourself ... Do I know what this means? - Do I know what it looks like? - Do I know how to teach it?

Resource 5

Ultimate Guide to the Generalist EC-6 TExES

Ultimate Guide to the Generalist EC-6 TExES is a commercial study guide written by Diane Bauer, Katherine Cezeaux, and Janet Scott. This comprehensive guide has excellent examples, illustrations, and practice questions to help you prepare for your exam, but the format also makes it a valuable resource for your future classroom. The *Ultimate Guide* may be previewed and purchased at ultimatetexesguide.com.

Additional study guides are available through local bookstores and should be chosen carefully based on their depth of exam content explanation.

Tip: Study guides are being sold with little more than the free information available in the ETS Preparation Manuals.

Test-Taking Strategies

The process of formulating a reason for why an answer is or is not correct allows you to consciously explain and be aware of your thought process. This type of metacognitive strategy is a valuable study tool that can improve performance on multiple-choice exams.

Tip: Consider the content presented in the incorrect answer choices as possible topics on the exams so that in answering one question you can potentially study up to four concepts.

- **Read the Entire Question and Restate in Your Own Words:** Read carefully and critically about what a question is really asking and then simplify the question in your own words.

Example: A kindergarten teacher has her students tap the sounds heard in a variety of words she says aloud. When the teacher says the word “boat” the students tap one time for each sound they hear /b/ /O/ /t/. What concept is being taught in this activity?

- A. phoneme segmentation
- B. structural analysis
- C. morphemes
- D. syllabication

Tip: Rephrase the question as, “What concept is taught when students listen to words in order to count each individual sound they hear?”

Answer: A. The individual sounds in spoken words are called phonemes. Structural analysis refers to root

Preparation Guide

words and affixes to decode print, morphemes are units of meaning within words, and syllabication segments words into syllables.

- **Pay Close Attention to Certain Words:** Negators such as “which of the following does not” and “all of the following except” indicate you are looking for an answer choice that does not fit and the other three answer choices are correct. All inclusive words such as “always” and “never” indicate no exception and are not likely to be correct answer choices. Qualifiers such as “first” and “after” indicate there is an order of importance and another answer choice may be appropriate at a different time.

Example: A first grade teacher is planning a lesson to help students understand the types of exercises beneficial in building cardiovascular endurance. Which of the following does not represent an activity this teacher could use as an example?

- A. Jogging around an athletic track.
- B. Swimming laps in an olympic pool.
- C. Playing baseball at recess.
- D. Folk dancing with a partner.

Tip: Look for common characteristics between 3 of the answer choices in order to find the 1 answer choice that does not belong.

Answer: C. Playing baseball is an anaerobic activity that requires short bursts of energy. Jogging, jumping rope, and folk dancing are aerobic activities that can build cardiovascular endurance because they require physical activity over a longer period of time.

- **Preview Questions Before Examining Stimulus Materials:** Preview the questions to understand the purpose of the stimulus material and more easily locate the required information.

Example: Use the illustration to answer the question that follows:

Favorite Apples for Snacks	
Type of Apple	Tally
Macintosh	
Baldwin	
Fuji	
Granny Smith	
Golden Delicious	

A class of second-grade students administered a survey and created a tally chart to display their results. What can definitely be concluded from the information presented in the tally chart?

- A. Five students like MacIntosh apples at this school.
- B. Seventeen opinions were recorded regarding favorite types of apples for snacks.
- C. Granny Smith apples are the favorite snack of second-grade students.
- D. More students like Golden Delicious apples than Fuji apples.

Tip: Read each of the answer choices and refer to the stimulus material to verify accuracy.

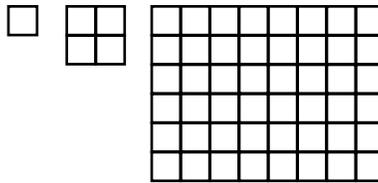
Answer: B. Exactly seventeen tally marks are recorded on the tally chart. A and C are stated as over-generalizations that can not be confirmed with the chart information alone. D is incorrect because both Golden Delicious and Fuji apples have two tally marks.

Preparation Guide

- **Draw a Picture:** A solution may seem reasonable when contemplated in your head, but representing the situation on paper can reveal misconceptions and common errors.

Example: A teacher needs 48 1" tiles to complete an art project. She finds there are only 2" tiles in the art supply room. How many 2" tiles would the teacher need to replace 48 1" tiles?

- A. 24
- B. 20
- C. 12
- D. 16



Tip: A ratio proportion can be used to mathematically solve conversion problems like these: $\frac{4}{1} = \frac{48}{x}$

Answer: C. Each 2" tile is made up of 4 1" tiles, thus it only takes $\frac{1}{4}$ the amount of tiles to cover the same area as 1" tiles.

- **Eliminate Incorrect Answer Choices:** There are usually two answer choices that are most clearly incorrect.

Example: Which of the following technological systems would provide the best representative model for the maintenance of steady body temperatures in mammals?

- A. An engine driven by the combustion of fossil fuel.
- B. An air conditioning system regulated by a thermostat.
- C. A greenhouse system heated by solar energy.
- D. An electrical generating system powered by moving water.

Tip: During a computer based exam, use scratch paper to keep a written record of eliminated choices in order to limit confusion and time wasted rereading the information. ~~A~~ ~~B~~ C D

Answer: B. The thermostat represents the brain, which controls body temperature in mammals. A combustion engine would best represent the digestive system as described in A, while a greenhouse is heated like cold-blooded animals as described in C.

- **Choose the Best Answer:** Answer choices may appear "right" because they describe plausible scenarios, but only one answer choice is correct for the question being asked.

Example: A fourth grade teacher introduces a lesson on the Great Depression by showing her class pictures of people living in poverty. Many students comment that the families look sad. The teacher describes how people did not have enough food and experienced other economic hardships during the time period. This discussion would be an especially good lead in for addressing which of the following concepts?

- A. History includes everything that has happened in the past, from ancient times to modern day.
- B. History is often interpreted differently by different people.
- C. History is not merely a record of past events, but a story from which lessons can be learned.
- D. History is a series of real events that have profoundly affected the lives of real people.

Tip: Consider the situation described in the question to look for the answer choice that most represents what is occurring in the scenario.

Answer: D. The scenario describing photos of people suffering during the Great Depression and student observations about those people's feelings indicates the relationship of historical events to real people's lives. Each of the other answer choices is true to some degree, but the other statements do not best match the situation described in the question.

Review Checklist

General Concepts and Instruction

Texas Essential Knowledge and Skills

- Texas Prekindergarten Guidelines
- English Language Proficiency Standards
- English Language Arts and Reading Grades K-6
- Mathematics Grades K-6
- Science Grades K-6
- Social Studies Grades K-6
- Health Grades K-6
- Physical Education Grades K-6
- Fine Arts Grades K-6

Pedagogy and Professional Responsibilities

- Effective Instructional Practices: Age, Individually, and Culturally Appropriate
- Relationship of Curriculum, Assessment, and Instruction
- Age Appropriate Instructional Materials
- Intradisciplinary and Interdisciplinary Instruction
- Developmentally Appropriate Hands-on Activities

- Differentiating Instruction for All Learners
- Awareness of Students' Individual Needs
- Instruction for English Language Learners
- Instruction for Special Needs
- Inclusive Instruction with Accommodations
- Physical Challenges
- Emotional Challenges
- Learning Disabilities
- Sensory Difficulties
- Language Differences
- Building on Students' Prior Knowledge
- Time Management in Education
- Physical Space in Educational Environments
- Promoting Positive Interactions
- Promoting Active Engagement
- Use of Assessment to Plan Instruction
- Using Assessment to Reevaluate Instruction
- Communicating Assessment Criteria to Students
- Analyzing Student Errors

- Providing Feedback About Assessment Results
- Types of Formal Assessment
- Types of Informal Assessment
- Performance Based Assessments
- Formative Assessment
- Summative Assessment
- Use of Technology
- Eliciting Higher Order Thinking
- Classroom Management
- Legal Responsibilities
- Ethical Responsibilities

Bilingual Educators

- Spanish Language Arts and Reading Grades K-6
- English as a Second Language Grades K-6
- Methodologies for Teaching English as a Second Language

English Language Arts and Reading

Oral Language

- Phonemes
- Graphemes
- Morphemes
- Oral Language Development
- Developmental Delays
- Phonology
- Semantics
- Syntax
- Pragmatics
- Strategies to Build Oral Language Skills
- Relationship of Oral Language to Literacy
- Connecting Spoken and Written Language
- Purposes for Speaking to Various Audiences
- Listening Skills for Various Purposes
- Evaluation of Spoken Messages
- Technologies for Oral Communication Skills

Phonological & Phonemic Awareness

- Phonological Awareness
- Development of Phonological Awareness
- Strategies to Build Phonological Awareness
- Word Awareness
- Rhyme Awareness
- Onset and Rime
- Syllable Awareness
- Phonemic Awareness
- Strategies to Build Phonemic Awareness

Alphabetic Principle

- Alphabetic Principle
- Letter Names
- Letter Sounds
- Alphabetic Skills Development
- Graphophonemic Knowledge
- Alphabetic and Non-Alphabetic Languages
- Phonetic Irregularity of English
- Encoding and Decoding
- Use of Big Books

Literacy Development

- Multiple Contexts of Literacy Development
- Development of Literary Response
- Elements of Literary Analysis
- Story Structure
- Story Elements
- Types of Children's Literature
- Genres
- Environmental Print
- Concepts of Print
- Authors' Purposes for Writing
- Technology for Selecting Books
- Language Experience Approach

Word Analysis & Identification Skills

- Development of Word Analysis and Decoding Skills
- Letter-Sound Relationships

- Vowel Digraphs
- Vowel Diphthongs
- Consonant Digraphs
- Consonants Blends
- Vowel and Consonant Patterns
- Blending Onsets and Rimes
- Structural Analysis Using Affixes
- Contextual Analysis of Syntax and Semantics
- Sight Word Vocabulary
- Analysis of Phonetically Regular Words
- Analogy Skills
- Use of Dictionaries and Glossaries

Reading Fluency

- Reading Rate, Accuracy, and Intonation
- Independent Reading Fluency Level
- Instructional Reading Fluency Level
- Frustrational Reading Fluency Level
- Age and Grade Level Expectations of Fluency
- Strategies for Fostering and Improving Fluency
- Readers' Theatre
- Choral Reading
- Rereading
- Sustained Silent Reading
- Strategies for Selecting Independent Reading Materials

Review Checklist

Reading Comprehension & Application

- Process of Reading Comprehension
- Factors Affecting Comprehension: Prior Knowledge, Fluency, Vocabulary, and Self-Monitoring
- Increasing Reading Vocabulary
- Literal Reading Comprehension
- Inferential Reading Comprehension
- Evaluative Reading Comprehension
- Instruction to Transition from “Learning to Read” to “Reading to Learn”
- Linking Text to Students’ Lives
- Explicit Instruction such as Previewing, Visualizing, and Retelling
- Guided Reading
- Pre-Reading Strategies
- During Reading Strategies
- After Reading Strategies
- Metacognitive Skills
- Word Study
- Graphic Organizers
- Reciprocal Teaching
- Multicultural Reading and Instruction
- Grade Level Expectations for Comprehension

Reading, Inquiry, & Research

- Locating Information for Research
- Types of Sources
- Retrieving and Retaining Information
- Connecting Concrete to Abstract Concepts
- Interpretation of Data in Various Formats
- Technology Used for Research
- Print Resources Used for Research
- Use of Experts in Research
- Study and Inquiry Skills

- Organizing Information for Research
- Questioning an Author
- Collaborative Reports
- Thematic Units

Writing Conventions

- Development of Writing Acquisition
- Relationship of Spelling to the Alphabetic Principle
- Stages of Writing Development
- Pre-Communicative Writing
- Pre-Phonemic Writing
- Phonemic Writing
- Transitional Writing
- Conventional Writing
- Spelling Instruction
- Developing Fine Motor Skills
- Pencil Grip Instruction
- Writing Conventions
- Comparison of Spoken and Written English
- Direct Writing Instruction
- Guided Writing Practice

Written Communication

- Meaningful Writing Assignments
- Pre-Writing Stage
- Drafting Stage
- Revising Stage
- Editing Stage
- Publishing Stage
- Benefits of Technology for Writing
- Writing for Various Audiences and Purposes
- Writing Conventions

Viewing & Representing

- Types and Influences of Media
- Comparison of Print, Visual, and Electronic Media
- Analyzing Choices of Visual Image Makers
- Interpreting Events from Media
- Using Media to Compare Points of View
- Producing Visual Images and Messages
- Matching Appropriate Visuals with Messages
- Technology for Producing Media
- Analyzing Use of Language, Medium, and Presentation in Media Messages

Assessment of Developing Literacy

- Assessment of Literacy Acquisition
- Assessment of Reading Comprehension
- Informal Reading Inventory
- Running Record
- Miscue Analysis
- Calculation of Reading Levels
- Cloze Procedure
- Criterion-Referenced Tests
- Norm-Referenced Tests
- Performance Based Assessments
- Use of Self Assessment
- Writing Assessments
- Rubrics
- Observations
- Checklists
- Writing Conferences
- Portfolios
- Analysis of Student Writing

Mathematics

Math Instruction

- Connecting Math to Students’ Lives
- Transition from Concrete to Symbolic to Abstract
- Use of Manipulatives and Math Tools
- Base Ten Blocks
- Technology Tools for Math Concepts
- Use of Calculators
- Development of Clear Learning Goals
- Relating Math to the Real World
- Use of Math in the Workplace
- Questioning Strategies
- Math Assessment and Analysis of Student Work
- Problem Solving Strategies
- Steps of Problem Solving

Number Concepts & Operations

- Commutative Property
- Associative Property
- Distributive Property
- Cardinal Numbers

- Ordinal Numbers
- Integers
- Rational Numbers
- Irrational Numbers
- Real Numbers
- Whole Numbers
- Prime Numbers
- Composite Numbers
- Expanded Notation
- Exponents
- Periods
- Counting On
- Counting Back
- Skip Counting
- Part-Whole Concept
- One-to-One Correspondence
- Greater Than/Less Than
- Addition Algorithms
- Subtraction Algorithms
- Multiplication Algorithms
- Division Algorithms
- Equivalency of Rational Numbers

- Fractions
- Decimals
- Percents
- Conversion of Fractions, Decimals, and Percents
- Inverse
- Number Theory Ideas
- Order of Operations
- Prime Factorization
- Greatest Common Factor
- Least Common Multiple
- Least Common Denominator
- Array
- Relative Magnitude of Various Types of Numbers
- Models for Representing Numbers: Fraction Strips, Diagrams, Patterns, Shaded Regions, and Number Lines
- Concrete and Visual Representations
- Counting Techniques
- Place Value
- Estimation

Review Checklist

Patterns & Algebra

- Illustrations of Algebraic Relations and Functions
- Linear Functions
- Patterns in Algebra
- Implicit and Explicit Rules
- Problem Solving
- Translation of Situations into Equations
- Variables
- Discount Cost of an Item
- Proportional Reasoning and Ratio Proportions
- Best Models for Sets of Data
- Inequalities

Geometry & Measurement

- Spatial Concepts: Direction, Shape, and Structure
- Development of Formulas
- Points
- Lines
- Planes
- Angles
- Parallel and Perpendicular Lines
- Problem Solving with 2 and 3 Dimensions
- Nets
- Open Figures
- Closed Figures
- Faces, Edges, and Vertices
- Finding Length, Perimeter, Area, and Volume

- Circles: Radius, Diameter, and Circumference
- Triangles: Right Triangle, Acute, and Isosceles
- Congruent Triangles
- Polygons
- Quadrilaterals
- Rhombus
- Parallelograms
- Cylinders
- Cones
- Pyramids
- Prisms
- Spheres
- Tessellations
- Symmetry
- Line Symmetry
- Point Symmetry
- Measurement as a Process
- Geoboards
- Appropriate Units of Measurement
- Time
- Temperature
- Money
- Mass
- Weight
- Capacity
- Transformation: Translation, Rotation, Reflection, and Dilation
- Similarity
- Congruence

- Conversion: Time, Speed, and Distance

Probability & Statistics

- Logical Reasoning, Justification, and Proof
- Measures of Central Tendency: Mean, Median, Mode, and Range
- Concepts and Principles of Probability
- Modeling Situations
- Making Observations
- Drawing Conclusions
- Probability as the Ratio of Two Areas
- One-Variable Data
- Statistical Experiments
- Graph of Normal Distribution

Mathematical Processes

- Graphs: Pictograph, Line, Circle, Bar, Double Bar, Scattergram, and Tally Chart
- Venn Diagram
- Stem and Leaf Plot
- Formal and Informal Reasoning
- Inductive Reasoning
- Deductive Reasoning
- Valid Conclusions
- Conjectures
- Reasonableness
- Various Strategies for Solving Problems
- Use of Visual Media in Math
- History and Evolution of Math
- Contributions of Various Cultures
- Origin of Base Ten, Zero, and Calendars

Social Studies

Social Studies Instruction

- Vertical Alignment of Curriculum
- Practical Applications of Social Science Issues
- Visual Representation of Social Studies Concepts
- Communication of the Value of Social Studies Education
- Inquiry Approach
- Qualitative Methods
- Quantitative Methods
- Primary and Secondary Sources
- Types of Sources: Periodical, Almanac, Gazetteer, Atlas, Glossary, and Index
- Analysis of Bias, Propaganda, Point of View, and Frame of Reference
- Gathering Information
- Considering Options
- Making Supportable Judgments and Conclusions
- Identifying Advantages and Disadvantages
- Instructional Strategies: Role-Playing, Simulations, Resource Persons, Cooperative Learning, Case Studies, Debate, and Oral Histories
- Evaluation of Internet Resources

History

- Historical Points of Reference in Texas, the United States, and the World
- Influence of Individuals, Events, and Issues on History
- Human Migration
- Native American Groups Before Colonization
- Effects of European Exploration and Colonization
- Influential Factors on Societal Development
- Concepts of Culture: Cultural Adaptation, Diffusion, and Exchange
- Effects of Science, Math, and Technological Innovations in History
- Interdisciplinary Relation of Historical Information
- Understanding Historical Research
- Formulating Historical Research Questions
- Implementing Solutions and Assessing Effectiveness
- Written, Oral, and Visual Forms of History
- Analyzing Historical Information
- Concept of Chronology
- Methods of Interpreting the Past

- Foundations of Representative Government
- The Revolutionary Era and the Early Republic
- Westward Expansion
- Transcontinental Railroad
- Sectionalism and the Civil War
- Effects of Reconstruction
- United States Reform Movements
- Abolition
- Women's Suffrage
- The Temperance Movement
- Important People of the 20th and 21st Centuries
- Important Events of the 20th and 21st Centuries
- Important Issues of the 20th and 21st Centuries
- Invasion and Conquest
- Historical Reflections of Particular Societies
- Immigration

Geography & Culture

- Geographical Concepts: Location, Distance, Region, Place, and Human-Environmental Interaction

Review Checklist

- Absolute Location
- Grid Systems: Latitude and Longitude
- Relative Location
- Location of Regions and Places in Texas, the United States, and the World
- Human and Physical Characteristics of Regions and Places in Texas, the United States, and the World
- Geographical Influence on Settlement Patterns
- Geographical Influence on Economic Development
- Geographical Influence on Political Relationships
- Geographical Influence on Past and Present Societies
- Understanding of Physical Processes: Erosion, Deposition, Weathering, Plate Tectonics, and Sediment Transfer
- Weather and Climate
- Activity in the Atmosphere Producing Weather and Climate
- Weather Patterns
- Effects of Physical Processes on Environmental Patterns
- Human Adaptation and Modification of the Environment
- Contributions of Racial, Ethnic, and Religious Groups
- Effects of Race, Gender, and Social Class on Ways of Life
- Relationships Among World Cultures
- Human Needs Throughout History
- Roles of Men, Women, Children, and Families
- Development of Customs, Traditions, and Beliefs
- Diversity Within Unity
- Geographic and Cultural Research Process

- Evaluative, Problem-Solving, and Decision-Making Skills
- Written, Oral, and Visual Forms of Geography and Culture
- Math and Statistics in Geography and Culture
- Characteristics, Distribution, and Migration of Populations
- Institutions that Exist in All Societies
- Representation of Culture in Communities
- Relationships Among Religion, Philosophy, and Culture

Economics

- Economic Systems
- North American Free Trade Agreement
- Free Enterprise System
- Goods and Services
- Needs and Wants
- Producers and Consumers
- Scarcity
- Factors of Production
- Economic Interdependence
- How Businesses Operate in the United States Free Enterprise System
- Ways Humans Meet Basic Needs
- Value and Importance of Work
- Purposes for Spending, Saving, and Budgeting Money
- Patterns of Work and Economic Activity in Texas, the United States, and the World
- How Society's Economic Level is Measured
- Rural to Urban Shift
- Agrarian to Industrial Shift
- Labor Unions
- Economic Reasons for Exploration and Colonization
- Economic Factors Leading to the Industrial Revolution

- Processes of Economic Development in World Areas

Government & Citizenship

- Purpose of Rules and Laws
- Relationship of Rules, Rights, and Responsibilities
- Key Principles of Major Political Documents: Declaration of Independence, United States Constitution, and Texas Constitution
- Bill of Rights and Amendments
- Individual's Role in Ensuring Welfare of Society
- Roles of Public Officials: President, Governors, and Mayors
- Relationship of National, State, and Local Governments
- Government Organization in Colonial America and Early in Texas Development
- How the United States Political System Works
- Branches of the Federal Government
- System of Checks and Balances
- How Bills Become Laws
- Types of Governments and Effectiveness at Meeting People's Needs: Democratic, Totalitarian, and Monarchical
- Impact of Landmark Supreme Court Cases
- Component of the Democratic Process: Voluntary Participation, Effective Leadership, and Expression of Different Points of View
- Customs, Symbols, and Celebrations Encouraging National Unity
- Rights and Responsibilities as Texas Residents and United States Citizens
- Variation of Rights and Responsibilities Among Various Societies

Science

Science Instruction

- Safety Regulations
- Appropriate Handling and Storing of Chemicals
- Proper Use of Materials and Equipment
- Responsibilities in Dealing with Organisms
- Precision, Accuracy, and Error in Recording Data
- Communicating Data in Various Ways
- International System of Measurement: The Metric System
- Unit Conversions
- Non-Experimental Inquiry Investigations
- Experimental Inquiry: Scientific Method
- Scientific Questions and Hypotheses
- Grade Appropriate Choice of Tools
- Making Systematic Observations and Measurements

- Critical Thinking Skills
- Logical Reasoning
- Scientific Problem-Solving
- Conclusions Based on Evidence
- Analysis of a Given Scientific Result
- Potential Sources of Error
- Defending Results of Inquiry Investigations
- Principles of Scientific Ethics
- Evaluating Scientific Knowledge
- Historical Developments in Science
- Contributions of Diverse Cultures
- Contributions of Male and Female Scientists
- Decisions About the Use of Science Related to Need
- Analysis of Factors Influencing Personal Choices

- Changes in Population and Human Population Growth
- Types and Uses of Natural Resources
- Human Role in Renewal and Depletion of Resources
- Role Science Plays in Resolving Challenges
- Explanatory Framework Across Science Disciplines
- Systems, Order, and Organization
- Evidence, Models, and Explanation
- Change, Constancy, and Measurements
- Patterns in Observation to Explain Data Interactions and Interrelationships of Systems
- Natural Phenomena
- System Properties: Space, Time, Energy, and Matter
- Complementary Nature of Form and Function

Review Checklist

- Physical Models
- Conceptual Models
- Mathematical Models
- Influences on Students' Science Learning
- Common Misconceptions

Physical Science

- Properties of Universal Forces: Gravitational, Electrical, and Magnetic Forces
- Changes on Motion: Potential and Kinetic Energy
- Analysis of Unbalanced Forces
- Relationship of Force and Motion
- Simple Machines
- Geologic Processes
- Physical Properties of Matter: Size, Shape, Temperature, Magnetism, Hardness, Conduction, Mass, and Density
- Chemical Properties of Matter: Combustion, Reactivity with Water, and PH
- Physical Properties of Solids, Liquids, and Gases
- Difference in Physical Changes vs. Chemical Changes
- Difference in Mixtures vs. Solutions
- Importance of Common Chemical Changes: Rusting, Photosynthesis, Cell Respiration, Chemical Batteries, Burning Fossil Fuels, and Food Digestion
- Conservation of Energy
- Forms of Energy: Mechanical, Sound, Thermal, Radiant, Chemical, Electrical, and Nuclear
- Energy Transformations
- Processes of Thermal Energy: Conduction, Convection, and Radiation
- Principle of Electricity and Magnetism
- Properties of Light: Refraction and Reflection

- Optical Systems: Camera, Microscope, Rainbow, and the Eye
- Properties, Production, and Transmission of Sound
- Sources of Electrical Energy
- Energy Transformation for Human Use
- Fossil Fuel Energy Transformation
- Solar Panel Energy Transformation
- Hydroelectric Plant Energy Transformation
- Process of Photosynthesis
- Transfer of Energy in Weather Processes
- Transfer of Energy in Food Webs and Food Chains

Life Science

- Structures and Functions of Living Systems: Cells, Tissues, Organs, Organ Systems, and Organisms
- Life Cycles of Common Plants
- Life Cycles of Common Animals
- Basic Needs of Organisms
- Functions of Human Body Systems
- Plant Reproduction
- Animal Reproduction
- Passing of Hereditary Information
- Inherited Traits
- Learned Characteristics
- Organization of Hereditary Material
- Dominant and Recessive Traits
- Probable Genetic Outcomes
- Environmental Influence on Traits
- Genetic Influence on Traits
- Adaptive Characteristics
- Change of Population Over Time
- Selective Breeding
- Mutation
- Internal and External Stimuli
- Interdependence Between Organisms
- Competition Between Organisms

- Interrelationships and Interdependence Among Producers, Consumers, and Decomposers
- Influences on the Size and Growth of a Population
- How Species Modify and Affect an Ecosystem

Earth & Space Science

- Structure of Earth
- Constructive and Destructive Processes for Geologic Change
- Surface Water
- Ground Water
- Composition and Structure of the Atmosphere
- Influence of Human Activity on Earth Systems
- Influence of Natural Processes on Earth Systems
- Rock Cycle
- Formation of Rocks
- Formation of Minerals
- Formation of Soil
- Water Cycle
- Water Cycle Relationship with Weather
- Nutrient Cycle
- Elements of Weather
- Tools Used for Weather Measurement
- Weather vs. Climate
- Weather Charts
- Making Forecasts
- Influence of Earth's Position on Weather
- Influence of Earth's Surfaces on Weather
- Objects in the Sky
- Earth-Moon-Sun System
- Seasons
- Lunar Phases
- Eclipses
- Components of the Solar System

Fine Arts, Health and Physical Education

Visual Arts

- Development of Perception
- Art Instruction
- Critical Thinking in Art
- Creative Problem Solving in Art
- Elements of Art: Color, Texture, Shape, Form, Line, Space, and Value
- Principles of Art: Emphasis, Contrast, Pattern, Rhythm, Balance, Proportion, and Unity
- Art Techniques: Drawing, Painting, Printmaking, Construction, Ceramics, Fiber Art, and Electronic Media
- Different Cultures' Uses of Art
- Awareness and Appreciation of Artwork
- Western and Nonwestern Traditional Artwork

- Visual Literacy
- Cognitive and Artistic Development

Music

- Promoting Lifelong Enjoyment of Music
- Activities to Make Music
- Activities to Respond to Music
- Relating Music to Students' Lives
- Standard Music Terminology: Rhythm, Melody, Dynamics, Intonation, and Intervals
- Reading Music Notation
- Writing Music Notation
- Hearing Music Notation
- Music for Specific Purposes
- Music Genres
- Music Styles

- Music of Various Cultures
- Purposes of Music in Society
- Music Career Options
- Music Heritage of Texas
- Music Heritage of the United States
- Evaluating and Critiquing Musical Performances
- Interdisciplinary Instruction with Music
- Teaching Singing
- How to Play Instruments

Theatre

- Development of Perception and Creative Expression
- Strengthening Focus, Sensory Perception, and Character
- Process-Centered Drama: Creative Drama

Review Checklist

- Production-Centered Drama: Scenes, Plays, and Musicals
 - Methods for Conveying Ideas: Improvisation, Pantomime, Puppetry, Dramatic Play, Story Dramatization, Storytelling, Role-Playing, Shadow Play, Monologue, and Playwriting
 - Expressive Movement
 - Playing Space
 - Dramatizing Stories, Poems, and Songs
 - Legal Issues: Copyrights, Royalties, Liability, and Contracts
 - Theatre Related to History, Society, and Culture
 - Historical, Regional, and Cultural Styles of Dress
 - Costume Construction
 - Source of Ideas for Dramatic Play: Literature, History, Current Events, Imagination, Personal Stories, and Folklore
 - Use of Music in Theatre
 - Lighting and Sound Technology, Equipment, and Safety Practices
 - Ensemble Work and Collaborative Dramatization
 - Visual, Aural, Oral, and Kinetic Aspects of Play-Making
 - Role of Live Theatre, Film, Television, and Electronic Media in American Society
 - Elements of Actor Analysis of Text: Movement, Beats, Subtext, Actions, Objectives, Key Words and Phrases
 - Classical and Contemporary Acting Techniques
 - Emerging Performance Practices
 - Vocal Techniques: Diction, Phrasing, Pitch, Breath Control, and Projection
 - Speech Terms: Pitch, Tempo, Tone, Timing, and Pacing
 - Theatre Occupations
- ### Health
- Health-Related Behaviors
 - Effects of Health-Related Choices
 - Reducing Health Risks
 - Enhancing Wellness
 - Body Systems and Development
 - Relationships Among Body Systems
 - Illness
 - Disease
 - Transmission Mechanisms of Illnesses and Diseases
 - Defense Systems
 - Disease Prevention
 - Types of Food and Nutrients
 - Balanced Diet
 - Effects of Stress
 - Stress Reducing Techniques
 - Stages of Human Growth and Development
 - Physical Change During Adolescence
 - Emotional Change During Adolescence
 - Substance Use and Abuse
 - Types of Substances
 - Types of Violence and Abuse
 - Causes and Effects of Violence and Abuse
 - Instruction Related to Safety
 - Accident Prevention
 - Response to Emergencies
 - Use of Refusal Skills and Conflict Resolution
 - Bullying
 - Coping with Unhealthy Family Behaviors
 - Eating Disorders
 - Social and Communication Skills
 - Interpersonal Relationships
 - Tolerance
 - Respect for Self, Family, Friends, and People
- Practicing Self-Control
 - Discussing Problems with Parents
 - Showing Empathy
 - Detecting Illness
 - Detecting Injury
 - Threats to Safety
 - Influences on Individual, Family, and Community Health: Media, Technology, Relationships, and Environmental Hazards
 - Sources of Health Information
 - Roles of Health Care Professionals
 - Health Maintenance Activities
 - Health-Wise Consumer Skills
- ### Physical Education
- Cardiovascular Endurance
 - Muscular Strength
 - Flexibility
 - Weight Control
 - Conditioning
 - Safety
 - Stress Management
 - Nutrition
 - Benefits of an Active Lifestyle
 - Evaluation, Monitoring, and Improving Fitness Levels
 - Developing Motor Skills
 - Nature of Mature Movement Patterns
 - Manipulation Skills
 - Locomotor Skills
 - Non-Locomotor Skills
 - Body Control
 - Manipulative and Rhythmic Skills
 - Individualized Instruction
 - Strategies to Improve Performance, Teamwork, and Skill Combinations
 - Strategies to Promote Rules, Procedures, Etiquette, and Fair Play
 - Age Appropriate Instruction and Activities

Bilingual Education

Foundations

- Historical Background of Bilingual Education
 - Global Issues and Perspectives
 - Federal Legislation
 - State Legislation
 - Demographic Changes
 - Procedures for Identification, Assessment, and Placement
 - Language Proficiency Assessment Committee
 - Additive Education
 - Acculturation
 - Assimilation
 - Advocate Attitudes
 - Convergent Research to Make Instructional Decisions
 - Models of Bilingual Education
 - Research Findings on Model Effectiveness
 - Factors that Determine Chosen Model on a Particular Campus
 - Multicultural Learning Environment
 - Bilingual Students' Affective, Linguistic, and Cognitive Needs
- ### Language Acquisition
- Linguistic Concepts: Language Variation, Change, Dialect, and Register
 - Language Components: Phonetics, Phonology, Morphology, Syntactic Features, Semantics, and Pragmatics
 - First and Second Language Development: Behaviorist and Cognitive
 - Stages of First and Second Language Development
 - Models of Language Acquisition
 - Interrelatedness and Interdependence of First and Second Language Acquisition
 - Factors Affecting Second Language Acquisition: Cognitive, Linguistic, Social, and Affective
- ### Literacy and Biliteracy
- Patterns and Stages of Literacy Development in First Language
 - Formal and Informal Literacy Assessments in First Language
 - Transfer of Literacy Competency from First to Second Language
 - Explicit Instruction to Assist in the Transfer of Literacy Competency: Phonemic Awareness, Decoding Skills, and Comprehension Strategies
 - Linguistic Concepts and ESL Techniques in Reading Instruction
 - Promoting Biliteracy

Content-Area Instruction

- Assessment of Cognitive-Academic Language Proficiency and Content-Area Knowledge and Skills in First and Second Language
 - Authentic Instruction in First and Second Language
 - Integration of Language Arts Skills in First and Second Language into All Content Areas
 - Comprehensible Content-Area Instruction in Second Language: Sheltered English Instruction and Reciprocal Teaching
 - Differentiated Instruction Based on Student Needs and Language Proficiency Levels in Second Language
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English Language Arts and Reading

- **Instructional Strategies:** Read-alouds promote listening skills. Discussions promote higher order thinking skills (HOTS). Story retelling improves speaking skills and recall of literal facts. Using props such as puppets can help shy or struggling students. Wordless picture books combine these skills, dramatic play supports pragmatic understanding. Rhymes, poems, and songs are fun ways to build oral language and listening skills.

Provide opportunities for verbal interaction, use heterogeneous groups of students, and give encouragement freely. Remain sensitive to different backgrounds and home environments, as well as acknowledge cultural diversity.

Parents, guardians, and caregivers should be encouraged to interact with their children informally. School and teacher-like, formal activities should be reserved for the classroom only. Suggest parents read to their children every day, discuss stories, and talk about letters and sounds in regular activities such as grocery shopping as informal ways to promote literacy development.

Phonological activities are oral in nature, without students reading or writing. They should be fun, in that good teachers encourage learning but avoid drilling students. Small group activities encourage the development of language, a social interaction skill. The Texas Primary Reading Inventory (TPRI) is a formal assessment used in public school from kinder through second grade. Ability to rhyme, identify word families, manipulate phonemes, and recite nursery rhymes are all informal assessments.

Teaching the alphabetic principle should be systematic, building from simple skills to more complex, with a variety of activities. Use children's interests, like their own names. Read and create alphabet books. Use magnetic letters, sandpaper letters, pudding, or jelly bags. Encourage the use of invented spelling.

Model fluent reading when reading aloud and have students read text repeatedly (even silently) to gain familiarity. Have students read independent level materials and incorporate choral or echo reading into instruction where students read along. Use tape-assisted stories where students follow along first and then read, as well as partner students so that fluent readers read first as an example. Have students practice reading like a script and perform a readers' theatre, plus encourage reading for pleasure and life long learning.

Praise all attempts at writing and accept invented spelling as "correct". Sound words out slowly for students to write the sounds they hear instead of spelling for them. Think aloud as you write and model conventional spelling as an example for students and provide a variety of writing utensils and paper in a writing center. Incorporate writing every day, as well as throughout the curriculum and also teach the use of spelling resources like dictionaries and environmental print. Use daily activities like morning message or lunch count, along with language experience approach (LEA) stories and interactive journals.

- **Oral Language Stages:** Stage 1 (0-1 year) includes crying, cooing, babbling, first words, and holophrases like a child saying "milk" but means "I want some milk." Stage 2 (1-2 years) includes noun-verb or telegraphic speech like a child saying "mama toy" meaning "mama, give me the toy." Stage 3 (3-4 years) includes over regularization like a child saying "I have two mouses" instead of "I have two mice." Sentence and speaking skills continue developing through age 8.
- **Receptive Language:** Listening and the ability to understand a message.
- **Expressive Language:** Speaking and the ability to express thoughts aloud.
- **Recognizing Language Delays and Assessment:** Language development occurs in a predictable sequence, although all children acquire skills at different rates. The development of language has a close relationship to the development of thinking abilities, making recognition of delays critical. Teachers must consider individual needs. *Teacher Observations* - How does the child speak with others in unsolicited interactions, such as on the playground or during centers? *Student Responses* - What speech or listening skills does the child demonstrate during specific oral language activities, such as rhyming games, distinguishing sounds, retelling stories, or following directions?
- **Phonology:** The English language is difficult because of the relationship of approximately 44 phonemes to only 24 graphemes. This letter to sound ratio makes the English language complex to learn.

Content Overview

- **Morphology:** The structure of words being made up of units of meaning.
- **Syntax:** The order of words arranged within a statement and in changing the order the meaning would also change. For example, “the cat chased the dog” is different than “the dog chased the cat”.
- **Semantics:** The meaning of words themselves that varies depending on the context they are used. For example, “*tear* this paper in half” versus “the *tear* rolled down her cheek”.
- **Pragmatics:** The role context plays in interpreting communication or the “hidden rules” of language. Pragmatics may cause difficulty for English language learners (ELL).
- **Phonemes:** The individual sounds that make up a spoken word and are represented in slashes. Example: the word “play” has 3 sounds /p/ /l/ /A/.
- **Graphemes:** The letters written as representations of phonemes. Example: /p/ = p /l/ = l /A/ = ay The graphemes p - l - ay combined spell *play*.
- **Morphemes:** Units of meaning within words. Example: *play* has 1 unit of meaning, but *playing* has 2 units of meaning, (play) & (playing).
- **Phonological Awareness:** The skills referring to the sound of language, not written symbols. Auditory discrimination develops in infancy, but specific skills to explain the sounds of oral language must be taught according to individual readiness and ability. Instruction occurs in a logical sequence and is adjusted for individual needs. Phonological awareness skills include:
 1. *Word Awareness:* Understanding spoken words have meaning, for example: “dog” refers to a four legged barking animal or “fast” means to hurry.
 2. *Rhyme Awareness:* Understanding certain words sound alike. Rhyming words are not necessarily spelled alike, for example: *Celebrate a great family trait.*
 3. *Onset & Rime:* In one syllable words, the initial consonant(s) is the onset and the remaining sounds are the rime, for example: (w)ork, (st)udy, (cl)ock. Onset and rime relates to word families and spelling patterns.
 4. *Syllable Awareness:* Understanding words are divided into parts and each part must contain a vowel. Often taught by clapping once for each segment in a word, for example: sil-ly = 2, hip-po-pot-a-mus = 5.
 5. *Phonemic Awareness:* Recognizing and manipulating the smallest units of sound, for example: segmenting, blending, adding, deleting, and substituting (*change the /b/ sound in book to a /k/ sound to say cook*) the units. These skills help students learn to read and spell.
- **Alphabetic Principle:** Understanding letters represent certain sounds and together letters make up words. It is the transition from oral language to written language. With these skills, children are able to *decode* (read) and *encode* (write). The elements include: *Alphabetic Recognition* - Ability to determine letters based on their unique shape, letter/name knowledge. *Graphophonemic Knowledge* - Ability to match a grapheme (letter) to a phoneme (sound), letter/sound correspondence. Children struggling with this skill have difficulty using invented spelling in their writing.
- **Concepts of Print:** Skills for identifying how writing is read, including directionality, visual discrimination, words and sentences, as well as story elements.
- **Development of Literary Response:** Read big books, rhyming stories and poems, as well as use the Language Experience Approach (LEA) to demonstrate *what is said can be written, what is written can be read*. Allow students to listen to, respond to, and read literature together and independently.
- **Letter-Sound Relationships:** Consonants, consonant digraphs, consonant blends, vowels, vowel digraphs, vowel diphthongs, CVC & CVCC patterns (*cat, cast*), CVCe, CVV, & CVVC patterns (*make, may, main*).
- **Structural Analysis:** Syllabication blends syllables to form words, affixes break up words into pronounceable parts, and compound words are a whole made up of separate pronounceable parts.
- **Phonetic Analysis:** Blending separate phonemes to form a word.

Content Overview

- **Context Clues:** Picture clues, semantic clues, and syntactic clues give information that indicates the appropriate way to pronounce a word or recognize the meaning of a word.
- **Analogy Skills:** Ability to associate unfamiliar words with words already known, knowledge of onset and rime.
- **Reading Fluency:** Ability to read quickly, correctly, and with proper intonation. Fluency is the link between word recognition and reading comprehension. *Rate* - The speed words are read, measured in words per minute. *Accuracy* - Instantly and correctly recognizing most words. *Intonation* - Using expression and acknowledging punctuation.
- **Miscues:** Mistakes made when reading text, which without self correction indicate an interference in reading comprehension. Examples include: *Insertion* of words not printed in the text. *Non-pronunciation* of words students want the teacher to say for them. *Omission* of words printed in the text. *Repetition* of words printed in the text. *Reversal* of certain letters in words or entire words being read. *Substitution* of entire words with completely different words.
- **Reading Comprehension:** The active process of constructing meaning from text. It is dependent on prior knowledge, fluency, vocabulary, the type of text being read, and strategies like self-monitoring, decoding, predicting, and asking questions.
- **Levels of Comprehension:**
 1. *Literal* - Understanding what is directly stated in a text. *There were 3 little pigs in the story.*
 2. *Inferential* - Understanding information that is not stated directly, but is implied and can be concluded from what is written in the text. *The wolf could blow very hard.*
 3. *Evaluative* - Ability to think critically about text and make judgments about what is read. *The last pig is smarter than his brothers.*
- **Stages of Spelling Development:** Children progress towards written communication as alphabetic understanding develops.
 1. *Pre-Communicative:* No letter-sound association, random letter strings that do not have meaning without the child's interpretation. *MOSNN = "I have a hamster."*
 2. *Pre-Phonemic:* Sounds are assigned to letter names and numbers. *R U KT 2? = "Are you Katie too?"*
 3. *Phonemic:* A letter to represent each sound heard in a word. *Mi dog at a brd. = "My dog ate a bird."*
 4. *Transitional:* Moving beyond sound alone, knowing sight words, and understanding some rules. *Wurms are slime and gross. = "Worms are slimy and gross."*
 5. *Conventional:* Knows rules and is usually correct with 90% accuracy. *People come from different places on Earth.*
- **Writing Conventions:** Guidelines considered when publishing writing in order to convey ideas clearly for an intended audience. Writing conventions are considered a courtesy to readers.

Capitalization - Certain words should be capitalized, such as at the start of sentences, proper nouns, the pronoun I, etc.

Punctuation - Not only periods at the end of sentences, but commas, semicolons, apostrophes, etc. throughout written text.

Grammar - The way sentences are worded and arranged to convey a thought or idea clearly.
- **Writing Process:**
 1. *Prewriting* - The planning stage before writing begins, when ideas are considered for a topic, as well as the purpose for writing, intended audience, and form.
 2. *Drafting* - Begin writing with the main purpose of getting ideas on paper.
 3. *Revision* - Looking over first drafts to reconsider writing, get feedback about it, and clarify ideas.
 4. *Editing* - Corrections are made with attention given to writing conventions and spelling.

Content Overview

5. *Publishing* - A final draft is written and shared with the intended audience.

- **Media Instruction:** Includes various types of communication for many purposes and provides students opportunities to produce visual images and messages, as well as observe and analyze the works of others.

- **Reading Levels:**

Frustrational - Text is too hard and students become frustrated when attempting to read it; less than 90% accuracy or 2 incorrect words in 10.

Instructional - Require some teacher guidance to read successfully; 90% accuracy or 1 incorrect word in 10.

Independent - Student are successful at reading and comprehending the text on their own; 95% accuracy or 1 incorrect word in 20.

- **Formal Reading Assessments:** Classroom tests, district exams, or standardized tests used during the school year (formative) and at the end of the year (summative) to monitor progress and assign grades.
- **Criterion-Referenced Tests (TAKS, TExES):** Measures performance on a certain task for which the passing criteria is predetermined.
- **Norm-Referenced Tests (SAT, GRE):** Measures achievement or competency in a certain area compared to that of a norm group, percentile results are shown on a graph of normal distribution.
- **Performance-Based Assessments:** Evaluate higher order thinking by having students complete not only problems or questions, but by having them apply their knowledge to a lab or other extended activity, such as story retelling.
- **Writing Assessments:**

Rubrics: Create rubrics in cooperation with students and discuss prior to assignments. Rubrics provide teachers a consistent means of assessing students' work and can aid students in self assessing their writing, a skill that develops metacognition.

Observations and Checklists: Watch students actively in the writing process and make notes using checklists for areas such as meaning, structure, language, and conventions. Should be used as a routine teaching practice.

Writing Conferences: One on one discussion, either formal or informal, where teachers can address a student's writing process and writing content.

Portfolios: Collections of student work that show progress (or lack of) over time. Allows students to self assess their own work and set future goals. Allows teachers a focus for exhibiting strengths and weaknesses, especially during parent conferences where tangible examples are most important.

Mathematics

Instructional Strategies: A *constructivist approach* allows children to discover information and construct their own meaning. Teachers guide students to explore and experiment through the use of questioning and manipulatives. The *problem solving approach* bases problems on real world situations rather than following a specific rule, as well as links new concepts with existing knowledge.

Teachers require information to

check student progress and the effectiveness of instruction. This information should be obtained through portfolios, rubrics, and student interviews.

Math requires logical thinking to make sense and reasoning is needed to explain and defend solutions to math problems. Asking students how they solved a problem is the best way to understand their thinking and reasoning.

Problem Solving Strategies:

Find a Pattern - Counting by fives.

Act it Out - Have students line up or form groups.

Draw a Picture - Pictorial (draw the scene) or schematic (draw the problem).

Guess & Check - Try out reasonable guesses and adjust until solved.

Work Backward - Use with a series of events.

Make a Table - Organize large amounts of data.

Content Overview

Simpler Form of Problem - Exposes the appropriate steps to follow.

Make a Model - Three dimensional version of drawing a picture.

Cardinal Numbers: Numbers used for simple counting. *How many pencils do you have? 5*

Ordinal Numbers: Numbers indicating a place in sequence. *Where are you in the line? 5th*

Rational Number: Any number that can be written as the ratio of two numbers, a/b where a and b are integers and $b \neq 0$, rational numbers terminate or repeat. $1/2$, 6 , $.333333$

Irrational Numbers: A non-terminating, non-repeating number that cannot be written as a ratio, a/b . *the square root of 2, pi (π)*

Prime Numbers: Numbers having only two factors, the number itself and one. $3, 7, 29$

Expanded Notation: Writing numbers in terms of their digits, related to place value. $6512 = (6 \times 1000) + (5 \times 100) + (1 \times 10) + (2 \times 1)$

Exponents: Number of times the base is used as a factor. $4^3 = 4 \times 4 \times 4 = 64$

Periods: A group of three numbers within a larger number that are separated by commas. $872,654,091$

One-to-One Correspondence: One group of things has the same number of things as another group. *counting fingers*

Greater Than Less Than: The arrow points to the number of lesser value or the "mouth" eats the number of larger value. $6 < 10, 12 > 4, 2365 < 3675$

Place Value: The value of a digit as determined by its location in a number. 8429.135 *8 is in the*

thousands place, 3 is in the hundredths

Base Ten Blocks: Manipulatives used to represent whole numbers by place value.

Mathematical Operations: Addition, subtraction, multiplication, and division.

Function: Growing patterns using inputs (x) and outputs (y). $x+3=y$, $x(2)=y$, $3x-1=y$

Algebra Equation: Isolate the variable by performing the inverse operation. *If $3x + 4 = 10$, then $x = 2$*

Discount Cost of an Item: Multiply the original price by the percentage off to find the discount, then subtract that discount from the original cost of the item.

Ratio Proportion: A strategy used to convert currency or other values, using an exchange rate and cross multiplication.

$$\frac{a}{b} \times \frac{c}{d} \rightarrow ad = bc$$

Parts of a 3D Figure: Flat surfaces are called faces, faces meet at an edge, and edges meet at a vertex or point.

Circles: Closed figures in which all points are the same distance from the center. A line segment from the center to the edge is the *radius*, a line segment that passes through the center ends on the edges is the *diameter*, and the distance around the circle is the *circumference*. $C = \pi(d)$ or $C = 2(\pi r)$

Types of Triangles: *Acute* (less than 90°), *obtuse* (more than 90°), and *right* (90°) are classified by the measurement of their angles. *Equilateral, isosceles, and scalene* are classified by the length of their sides.

Pythagorean Theorem: The square of the hypotenuse of a right triangle is equal to the sum of the square of the other two sides. $a^2 + b^2 = c^2$

Line Symmetry: If folded along a line, the two parts match exactly.

Congruence: Figures with the same size and shape.

Perimeter: The distance around a figure, found by adding the length of a figure's sides; *rectangles $P = 2l + 2w$, triangles $P = l + l + l$.*

Area: The amount of surface area a two-dimensional figure covers, measured in square units; *rectangle $A^2 = l \times w$, triangle $A = 1/2bh$.*

Volume: The capacity of a three-dimensional figure, measured in cubic units; *rectangle $V^3 = l \times w \times h$.*

Geoboards: Manipulative used to explore geometric concepts such as length, perimeter, and area.

Distance, Speed, & Time

Conversion: Multiply the speed of an object by the time traveled to find the distance traveled. $D = S \times T$

Probability: Ratio of favorable possible outcomes to total possible outcomes. $2:10, 2/10, 2$ to 10 , *reduced to 1:5*

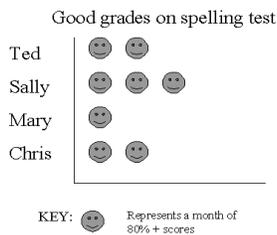
Mean: An average found by adding a set of numbers and dividing by the amount of numbers in the set.

Median: Middle number in a set of numbers arranged from least to greatest.

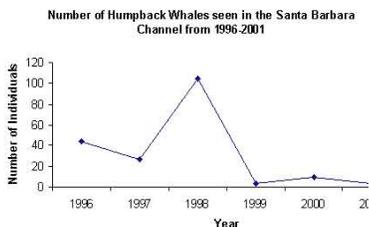
Mode: Number that appears most often in a set of numbers.

Pictograph: Uses pictures to represent and compare information, a key signifies the value of each picture.

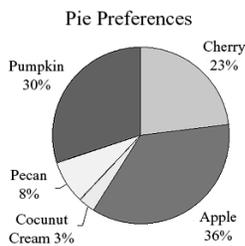
Content Overview



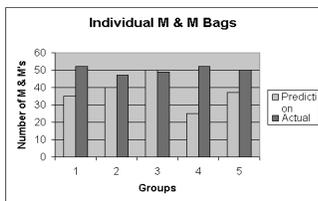
Line Graph: Shows a change over time, where the x axis represents time and the y axis represents the change. Ordered pairs (x,y) indicate the values being represented.



Circle Graph: Shows data as a whole that is made up of different parts.

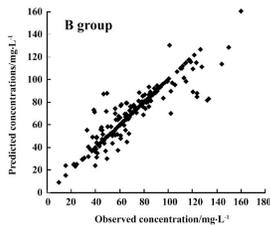


Bar Graph: A histogram compares facts about groups, either vertically or horizontally. A double bar graph incorporates a third variable.

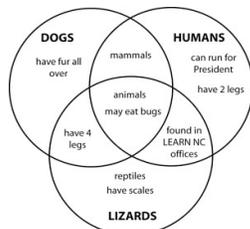


Scattergram: Shows a comparison between two sets of data to

represent a correlation.



Venn Diagram: Compares and contrasts information. Overlapping occurs where there are elements in common.



Stem and Leaf Plot: Organizes data by place value. The tens digit is represented one time and the ones digits are represented as many times as needed to show the values of the data.

Tens	Ones
1	9
2	2 5 6 7 8
3	0 4 6 7
4	2 3 4 6 8
5	2 3 5 7 8

19, 22, 25, 26, 27, 28, 30, 34, 36, 37, 42, 43, 44, 46, 48, 52, 53, 55, 57, 58

Formal/Deductive: Forming conclusions from ideas thought to be true with a high degree of certainty. Applies a rule to make a conclusion.

Informal/Inductive: Drawing inferences from uncertain ideas with varying degrees of confidence.

Makes a rule after observing several examples.

Conjecture: A math statement based on incomplete evidence that can be valid or invalid. Formally proven conjectures are called theorems.

Fallacy: Misconception in reasoning that leads to an error in understanding.

Multicultural Math Curriculum: All people engage in math activities. The study of mathematician biographies, historical developments, children's literature, and thematic units are ways to incorporate diversity. Other areas of focus may include calendars and counting words of various cultures, as well as patterns in art and architecture.

Math History: Base 10 originated in India. *Hindus* developed astronomical calculations, techniques for modern day algebra, and the concept of zero.

Egyptians used numbers into the millions for everyday purposes.

Babylonians developed a base 60 number system, as well as multiplication and division tables.

Greeks connected geometry and numbers, calculated planet distances from Earth, and developed the system of irrational numbers.

Mayans developed a calendar and advanced in astronomy, engineering, and art.

Aztecs used math for engineering and other practical purposes, as well as astronomy.

Social Studies

- **Instructional Strategies:** A variety of strategies are used to teach social studies. Role-play allows students to interact and imagine themselves in various roles, while simulations present decision-making in the form of a game with no risk. Observing first-hand at a museum or historic site containing artifacts through field experiences, inviting volunteer guests, or hiring paid experts to share information can be both educational and engaging. Cooperative learning builds social skills and encourages new ideas; keeping in mind that groups of four are best. Case studies presented through video, audio, or print should be age-appropriate. Debate is a higher order thinking skill (HOTS) that requires practice and helps develop reasoning skills to defend an argument. Involve students' own families in collecting oral histories and performing interviews to study first-hand knowledge of historical events and time periods. Incorporate the use of learning centers and discuss conflict resolution skills as role models for keeping aggression in check to talk out problems nonviolently.

Teachers can accommodate different learning styles, motivate students to learn in new ways, and allow communication via email or chats with experts and other students.

- **The Expanding Communities Approach:** Students are introduced to an increasingly expanding social environment each year, moving progressively from examining the self in kindergarten to the greater world in sixth-grade.
- **Qualitative Research:** Data is gathered using in-depth interviews, open-ended surveys, or anecdotal collections. Considered more subjective in nature, but provides information about human perspectives.
- **Quantitative Research:** Numerical data that is systematically gathered. Considered more objective for statistical uses.
- **Primary Sources:** First-hand records made by people who saw or took part in an event. *Journals*
- **Secondary Sources:** Second-hand records written by someone who was not there during an event or time. *Textbooks*
- **Examining Cause and Effect:** One event or action brings about another. *A stock market crash a*

cause of several effects including, panic, high unemployment rates, and poverty during the Great Depression.

- **Recognizing Frame of Reference:** Any preexisting idea that influences a person's perception, thought, or opinion. *Socioeconomic status influences a person's attitudes about money.*
- **Recognizing Bias:** A one-sided attitude toward a subject that is focused on feelings rather than fact. *A journalist writing an article in support of their favorite candidate.*
- **Recognizing Point of View:** History is a selective interpretation of actual events, written from the perspective of the writer. There are two sides to every story. *A Holocaust survivor compared to an historian researching the Holocaust.*
- **Recognizing Propaganda:** Any scheme or effort, as in labeling, name-calling, or testimonial, to promote an idea or point of view. *PETA uses celebrities to speak out to the public against animal cruelty.*
- **Internet:** A vast source of information that can also be inaccurate and biased. Students must be taught explicit skills to evaluate sources found online, such as examining the author, URL, and purpose of the site.
- **The Ancient World:** 10,000 years ago villages were formed when humans began farming and living in one place. Complex societies emerged with government, religion, writing, and learning. Various migrations occurred around the world.
- **The Middle Ages:** Rise of Islam, civilizations of the Americas, the Viking, the feudal system, the Crusades, Genghis Khan invaded China, African kingdoms, and the Hundred Years' War.
- **Age of Discovery:** The Renaissance, development of the Aztec and Inca civilizations, exploration and colonization of the Americas, African Empires, the Reformation, the Ottoman Empire, the Ming dynasty, the Dutch Empire, and the rise of slavery. *Renaissance:* Europe experienced a rebirth in philosophy, art, and science from about 1400 to 1600. Included the works of Michelangelo and the Sistine Chapel, da Vinci and the Mona Lisa, Copernicus and the idea the sun was the center of the universe, Galileo and the telescope, and Gutenberg's invention of the printing press which lowered the cost of books. *Exploration of the*

Content Overview

Americas: To expand people's knowledge of the world, find new sea routes, animal furs, and precious metals, spread Christianity and to control larger empires. Spanish explorers brought horses and cattle which influenced the way of life for native inhabitants and future settlers.

- **Revolution and Industry**: The Russian Empire, the Machu dynasty, the period of Enlightenment, the creation of the United States, the French Revolution, the Napoleonic era, the Industrial Revolution, the British Empire, the American Civil War, and the unification of Italy and Germany. *Industrial Revolution*: Period when agricultural communities shifted toward town-centered, factory manufacturing and machines replaced hand tools to produce goods.
- **The Modern World**: Equal Rights Movement, World War I, the Russian Revolution, the Great Depression, the rise of fascism, revolution in China, World War II, Israel versus Palestine, the Cold War, the space race, the Korean and Vietnam wars, wars in the Middle East, and globalization.
- **Colonial Era and the American Revolution (1607-1783)**: Colonists sought refuge, religious freedom, and economic opportunity. Colonial unrest grew over economic disagreements under British rule and colonist argued for live representation in England. The Stamp Act, Boston Massacre, and Boston Tea Party led up to the war for American independence, which was won in 1783. *The Declaration of Independence*: The document declared American independence and set the standard that people must consent to be governed. *The US Constitution*: Originally the Articles of the Confederation, defines the nation's government.
- **US Exploration and Expansion (1783-1860)**: Manifest Destiny was an idea that the US should stretch from coast to coast and encouraged the purchase of territories and exploration.
- **The Civil War (1861-1865)**: In 1861, the war between the North (Union) and South (Confederacy) began over political issues including slavery. Abolitionists opposed the slave trade and in 1863 Abraham Lincoln signed a Presidential order freeing slaves in the Confederate states.
- **Reconstruction (1865-1889)**: The period when the southern states were rebuilt, marked by an increase in population diversity. The Reconstruction Amendments (13th, 14th, 15th) were passed to end slavery and give African American men the right to vote. The railroad was an important part of westward expansion and the transcontinental railroad was completed in 1869.
- **The Progressive Era (1890-1913)**: Progressive thinking and technological advances, in areas such as sanitation and health care, contributed to improving lifestyles. Henry Ford started the first assembly line which led to greater efficiency, expansion of American industry, and a higher standard of living.
- **World War I (1914-1918)**: The first global war, during which the US attempted to remain neutral until receiving direct hits from German forces.
- **Great Depression (1929-1939)**: Began Black Tuesday, October 29, 1929 when the stock market crashed and financial panic ensued. The result was a devastating economic crisis that caused widespread hunger, poverty, and high rates of unemployment.
- **US Involvement in WWII (1941-1945)**: The Japanese bombing of Pearl Harbor, December 7, 1941, initiated US involvement. The results included the atomic bombings of Hiroshima and Nagasaki, as well as the mistreatment of Japanese Americans.
- **Modern Era (1945-Present)**: The Civil Rights Movement was an important influence in the changing of social equity for African Americans, migrant workers, and women. Associated events, such as the Rosa Parks incident, demonstrated our nation was not meeting democratic ideals.
- **Native Americans (1400s)**: Native American tribes had unique cultural characteristics because they adapted their lifestyles to suit the available natural resources of their environments.
- **Farming Groups**: The *Caddo* tribe of east Texas was the most developed group who rotated crops, traded goods, had a ranked social system, and elaborate beliefs. The *Jumano* of west Texas irrigated crops in the dry, desert climate.
- **Nomadic Groups**: The *Tonkawa* of south-central Texas. The *Atakapan* and *Karankawa* of the coastal region. The *Coahuiltecan* of south Texas.

Content Overview

- **Buffalo Dependent Groups:** The *Lipan* Apache of north-central Texas used horses to hunt. The *Comanche* of north Texas were hunters and fierce warriors who spread across Texas pushing other tribes out.
- **European Explorers (1500-1800s):** Catholic priests ran Spanish missions, which were towns set up to teach Native Americans religion, Spanish ways of life, and protect the Spanish crown. Mexico encouraged the settlement of Texas land and families left their homes to start new lives.
- **Texas Revolution (1800s):** Mexican rule placed restraints on personal freedoms of Texas settlers. In resistance, the Texas Army was formed and led by General Sam Houston against the Mexican Army led by Santa Anna. Final battle at San Jacinto, April 21, 1836, won independence for Texas.
- **Late 1800s to Present Day:** Henrietta King ran the *King Ranch* in her husband's absence. She developed the Santa Gertrudis cattle line that was resistant to disease and the TX heat. *Spindletop* was the first large oil discovery in 1901 that created interdependence between the Texas and national economies.
- **Absolute Location:** The exact position of something using a grid system that is made up of a network of horizontal and vertical lines, called latitude and longitude. Points are located by means of coordinates called ordered pairs (x,y).
- **Lines of Latitude:** Parallels are horizontal lines around Earth, where the Equator is 0° latitude and the lines increase in degrees moving away. Divides the Northern and Southern Hemispheres.
- **Lines of Longitude:** Meridians are vertical lines that run from pole to pole, where the Prime Meridian is 0° longitude and the lines increase in degrees moving away until the opposite line is reached at 180° longitude. Divides the Western and Eastern Hemispheres.
- **Relative Location:** The relationship of one place to other places, described by landmarks, time, direction, or distance from one place to another. If a part of information is removed, the relationship is lost and the directions won't be reliable.
- **Region:** The natural features of the land that distinguish one place from another.
- **The Natural Regions of Texas:**
 - Coastal Plains:* The largest region in Texas. Resources include timber, fish, ports, and chemicals.
 - North Central Plains:* Northwest of the Coastal Plains, mainly dependent on agriculture.
 - Great Plains:* Central Texas up to the panhandle where widespread use of irrigation allows cotton and wheat farming, plus it is a major oil producing area.
 - Mountains and Basins:* Westernmost region of Texas and also part of the Rocky Mountain system. Mostly desert, the area has multiple ports of entry from Mexico supporting international trade.
- **Patterns of Settlement:** Human needs encourage or discourage the locations people live, water is a major factor.
- **Cultural Diffusion:** The spread of ideas, inventions, or patterns of behavior from one culture to another. It occurs through both physical movement, as well as technology.
- **Cultural Adaptation:** The incorporation of some features of another culture.
- **Cultural Exchange:** The sharing of cultural characteristics between groups of people.
- **Migration:** To move from one place to another.
- **Emigrate:** To move away from an area.
- **Push Factors:** Circumstances that drive people away from original locations.
- **Immigrate:** To move into an area.
- **Pull Factors:** Circumstances that bring people to new locations.
- **Human-Environmental Interaction:** Society and the environment can not be separated. Humans depend on, adapt to, and modify the world around them, thus allowing societies to thrive virtually all over the earth. Human adaptation is a problem-solving behavior. All groups of people solve the same basic set of problems, but way of life is adapted to the natural resources (both renewable and nonrenewable) of their local environment.
- **Traditional System Economy:** Customs, habits, and religious beliefs control decisions. *Australian Aborigines*

Content Overview

- **Command System Economy:** Government controls economic activity. *North Korea*
- **Market System Economy:** Free enterprise allows individuals to control production of goods and distribution of resources, relying on supply, demand, and prices to determine how much to produce. *United States*
- **Labor Unions:** Formed for economic reasons and legal protection from exploiting employers. Provided better working conditions, higher wages, a 40 hour work week, and overtime pay. There has been a decline in membership and influence because of employers seeking to keep businesses union-free, new generations having little union loyalty, and an inability to remain competitive due to high wages. A shift toward technology has also lessened the need for traditionally union-loyal, industrial jobs.
- **Texas Economy:** *Agriculture* - Cotton is the leading crop, while beef cattle is the greatest income. *Mining* - Texas produces 1/3 of the total US output of oil and natural gas, as well as large amounts of coal, magnesium, and graphite. *Manufacturing* - Wide diversification in manufacturing includes high tech industry, cosmetics, leather goods, and mobile homes. *Foreign Trade* - Infrastructure helps export manufactured and agricultural goods: 12 deep water ports on the Gulf of Mexico, nearly 1200 airports, and first in the nation for total highway and railroad mileage.
- **Democracy:** All people have political control, directly or through elected representatives. Federalism shares power between the state and the nation.
- **Oligarchy:** Few individuals hold all the power. Communist China is controlled by the Chinese Communist Party and the Chinese military.
- **Totalitarianism:** One group maintains complete control under a dictator and people have no power to limit rulers.
- **The Constitution of the United States:**

The *preamble* is the introduction that explains why the Constitution was written - to create a better government.

The *articles* cover general topics of how the government works, including the branches of government and how laws are to be passed.

The *amendments* are changes and clarifications made to the Constitution so that it remains current and responsive to the needs of the US.
- **Branches of the Federal Government:**

Legislative Branch - Congress makes the laws.

Executive Branch - The President carries out the laws.

Judicial Branch - Federal Court settles differences about the meaning of laws.
- **Checks and Balances:** The system that limits the power of each branch of government. The legislative branch checks the executive branch by overriding presidential vetoes. The executive branch checks the judicial branch by appointing Supreme Court Justices. The judicial branch checks both the legislative and executive branches by ruling laws unconstitutional.
- **How does a bill become law?**

First, a member of the House or Senate proposes a bill.

Then, the bill is reviewed by legislative committees.

Next, the House and Senate vote to approve the bill.

Fourth, the bill goes to the president or a state governor for approval.

Last, the head of state either signs the bill into law or vetoes the bill. When a bill is vetoed and Congress is in session, a 2/3 vote can make it law.

Science

- **Instructional Strategies:** Teachers should consider safety responsibilities during science activities. Perform experiments in advance and review with students before starting. Obtain parental permission as needed. Ensure the safety of all students, optimal group size is four students, and adequate space must be a priority. Anticipate the special needs of students with disabilities to support their participation. Ensure conditions are met for the survival of all living

Content Overview

organisms.

Basic safety rules should include: Do not eat or drink anything without permission. Wash hands after experiments. Wear protective gear as needed.

The *discovery approach* permits children to investigate on their own in a child-centered environment, while the *experimental approach* incorporates formal investigations guided by teachers to develop hypotheses, define variables, conduct experiments, and interpret data.

Connect to students' prior knowledge, give students time to explore, provide opportunities for and guidance in data collection, and work together to support understanding all while focusing on concepts as related to student interests.

- **Handling and Storing Chemicals:** Never taste chemicals and smell cautiously. Use materials that are age appropriate. Store labeled containers on wooden shelves at or below eye level. Keep acids and bases stored in different locations. *Acids* - Sour, corrosive, and change litmus paper from blue to red. Add acids to water not water to acids. *Bases* - Feel slippery and change litmus paper from red to blue.
- **Thermometer:** Measures temperature in Fahrenheit, Celsius, or Kelvin.
- **Balance Scale:** Measures mass in grams or equivalent units.
- **Spring Scale:** Measures weight in pounds or equivalent units.
- **Graduated Cylinder:** Measures volume in liters or equivalent units.
- **Beaker and Flask:** Measures volume in liters or equivalent units.
- **Terms to Explain Experimental Data:** *Reliable* - Yields the same results over multiple trials. *Accurate* - Conforming exactly to fact; errorless. *Precise* - Level of accuracy. *Conclusive* - Puts an end to all doubt.
- **Scientific Method:**

Step 1 - State the Problem: A question that needs to be answered; *How does lack of sunlight affect plant growth?*

Step 2 - Formulate the Hypothesis: A possible answer to the problem; *Plants without sunlight*

will not grow.

Step 3 - Collect Data: Perform the experiment to gather information about the situation; *Plants in a dark closet do not look healthy. Plants in sunlight have grown 2 inches per week.*

Step 4 - Interpret the Data: Inferences made about what the data could mean; *Plants need sunlight to be healthy and grow.*

Step 5 - State the Conclusion: The application of the interpretation in making a decision based on the evidence; *Sunlight is required for photosynthesis, which is the way plants make food to support their growth.*

- **Scientific Method Variables:**

Independent Variable/Manipulated Variable - The part of an experiment that will be changed or influenced by the experimenter. *The amount of sunlight - placing some plants in a closet and other in sunlight.*

Dependent Variable/Responding Variable - Part of an experiment that changes from the manipulation of the independent variable. *Plant growth - some plants grew and others did not.*

Control Variable - Part of an experiment that is kept constant throughout the experiment in order to ensure the results are reliable. *The same soil type and amount of watering for all plants was used in the experiment.*

- **Process Skills:** Inquiry tools used to find the answers to questions posed. They are the skills used when children investigate their environment and are necessary for success in the science classroom. *Hypothesizing* - Forming an educated guess to questions posed. *Classifying* - Grouping information according to common characteristics. *Communicating* - The ability to describe and discuss collected data. *Inferring* - Reaching conclusions based on observations.
- **Force:** A push or pull on an object causing the object to start moving, speed up, slow down, stop, or change direction. A larger force is needed to move a heavier object and the object moves in the direction of the force.

Gravity - The force that pulls any two objects toward one another.

Inertia - An object in motion tends to stay in motion and an object at rest tends to stay at rest, unless acted on by another force.

Content Overview

Friction - The force that slows the motion of moving objects and occurs when two objects rub against one another.

- **Work:** The result of a force moving an object. The amount of work depends on the amount of the force and the distance the object moves. Work is done only when an object moves as a result of the force placed upon it. Simple machines are used to make work easier.

Inclined Plane: A flat surface with one end higher than the other; ramp.

Wedge: An object with slanted sides that facilitates its penetrating another substance; nail.

Pulley: A rope moves around a wheel making heavier loads easier to lift; water well.

Wheel and Axel: A wheel attached to a rod that as the wheel turns the rod attached to it turns; bicycle.

Lever: A bar that can be turned or moved to work something; screwdriver.

Screw: An inclined plane, wrapped with grooves, used to hold material together; bolt.

- **Electricity:** A form of energy arising from the behavior of electrons and protons that is caused by the transferring of positive and negative charges. Like charges repel (+, +) (-, -), opposite charges attract (+, -). *Static Electricity* - Produced when objects gain or lose negative charges; lightning is produced when clouds gain electrons.
- **Electromagnet:** A temporary magnet made when electric current flows through a coiled wire. The more coils of wire the stronger the electromagnet. It is made using a dry cell battery, a nail, and wire coiled around the nail then attached to the battery.
- **Physical Properties of Matter:** The characteristics observed or measured without changing the substance. Color, size, and shape are descriptors in addition to:

Mass: The amount of matter an object has in it.

Volume: The amount of space matter takes up.

Density: The amount of mass in a certain volume of water.

Weight: The measure of gravitational force acting on an object.

Buoyancy: The capacity to remain afloat in a liquid or to rise in a gas.

- **Types of Energy:** *Potential energy* is stored in an object at rest and can cause it to move if a force acts upon it. *Kinetic energy* is when an object is in motion.
- **Forms of Energy:** *Mechanical* - Energy of an object due to its potential or kinetic energy. *Sound* - Energy produced from vibrating matter, water has the greatest resistance to sound energy. *Electrical* - Energy produced from the flow of electricity. *Chemical* - Energy produced from chemical changes. *Nuclear* - Energy produced when an atom splits or two atoms join together to form one atom. *Radiant* - Light energy that travels in waves and can move through empty space. *Heat* - Energy produced from the movement of atoms and molecules, the more rapid the movement the greater the heat.
- **Energy Transformations:** Energy can change form. For example: A light turned on uses electrical energy that becomes radiant and heat energy. During photosynthesis, radiant energy becomes chemical energy. A fan uses electrical energy that becomes mechanical energy.
- **Light:** A visible form of energy that includes the visible spectrum. Visible light has a range of wave lengths that appear as different colors and when combined create white light, such as sunlight. A triangular prism can bend white light and separate it into the band of colors: red, orange, yellow, green, blue, indigo, and violet. When the sun shines during or after a rain shower, the water droplets act like a prism and create rainbows.
- **Plant Classification:** *Plants That Make Seeds* - Plants that make flowers and cones. *Plants That Do Not Make Seeds* - Plants that reproduce by forming spores, tiny cells that carry the genetic material of the plant and can grow into new plants.
- **Animal Classification:** *Invertebrates* - Do not have an endoskeleton; some have an exoskeleton. Include: sponges, hollow-bodied animals, worms, mollusks, spiny-skinned invertebrates, arthropods, spiders, and insects. *Vertebrates* - Have an endoskeleton. Warm blooded include: birds and mammals. Cold blooded include: fish, amphibians, and reptiles.

Content Overview

- **Incomplete Metamorphosis:** The change is mainly in size and small features and includes three stages: Egg, Nymph, and Adult.
- **Complete Metamorphosis:** The change is entirely different and includes four stages: Egg, Larva, Pupa, and Adult.
- **Stimuli and Responses in Plants:** An external stimulus is a change in the environment that causes a response, such as little rainfall causes leaves to become dry.
- **Plant Adaptations:** Inherited characteristics that increase the chance of survival, such as large leaves to capture more sunlight, shallow roots to absorb water more quickly, and waxy leaves to hold in moisture.
- **Asexual Reproduction:** One-celled organisms make offspring by splitting in two using some variation of mitosis. The parent cell divides into two new cells, so that the parent no longer exists. Populations can grow rapidly, but genetic diversity is limited. Offspring are exact replicas of the parent cell.
- **Sexual Reproduction:** Multi-celled organisms involve two parents. The female provides eggs and the male provides sperm that each contribute half the chromosomes inherited by the offspring through meiosis.
- **Stimuli and Responses in Animals:** Either an *internal* or *external* change that causes a response, such as thirst makes people seek water (internal) or a loud noise causes people to jump (external).
- **Physical Adaptations:** Characteristics that improve chances of survival, such as: sharp teeth, claws, beaks, tusks, long necks, spines, release of bad odors, and thick fur. Camouflage allows animals to blend in to surroundings. These traits assist animals in obtaining food and shelter, as well as provide protection from predators and the environment.
- **Behavioral Adaptations:** Inherited behaviors that improve chances of survival, such as: speed, staying in the shade, living in groups, and hunting strategies. Migration is the movement from one location to another as the seasons change. Hibernation is a resting period during winter where an animal's metabolic process slows down dramatically. Winter sleepers do not technically hibernate, but wake for short periods of time during good weather to eat.
- **Plant Energy:** Producers are green plants that use sunlight to make their own food through the process of photosynthesis. Chlorophyll traps light energy and uses carbon dioxide and water to make sugar; the byproduct is oxygen.
- **Food Web:** A representation of multiple food chains demonstrating the flow of energy within an entire ecosystem. Animals within the food web compete for limited resources, as well as depend on one another for survival. Natural disasters and human behaviors have direct influence on the balance between the organisms. Events that affect one organism will affect others.
- **Surface of the Earth:** *Atmosphere* - Four layers of gases surrounding the earth that support life. It contains the clouds where precipitation occurs. The burning of fossil fuels releases carbon dioxide into the atmosphere, as well as produces unhealthy amounts of ozone. The negative effects include global warming and human health issues like asthma and heart conditions. *Hydrosphere* - Water resources make up 75% of the earth's surface, while only 3% is fresh water from rivers, lakes, and groundwater. Groundwater is rain or snow that sinks into the earth and is stored there. *Lithosphere* - The solid surface of the earth, including the continents, ocean floors, minerals, rocks, and soil.
- **Changing Forces:** *Plate tectonics* is the movement of the earth's crust and upper mantle, which is broken into plates. This movement causes earthquakes, volcanic eruptions, and mountain formations mainly along fault lines. *Weathering* is the physical or chemical breaking down and changing of rocks by air, water, ice, chemicals, and living organisms. *Erosion* occurs when weathered rock or soil is moved by wind, water, and ice. *The Great Lakes were formed from the movement of glaciers creating depressions that filled with water.*
- **Sedimentary Rock:** Forms from pieces of weathered rock and other materials, such as shells and sand. Sediments sink to the bottom of bodies of water and, after many years of pressure, layers of rock form. Fossils are remains or traces of organisms that were once alive and became preserved in the layers of sedimentary rock.
- **Igneous Rock:** Forms from magma that cools beneath the earth's surface or lava that hardens on the earth's surface.

Content Overview

- **Metamorphic Rock:** Forms when igneous or sedimentary rock are subjected to heat and pressure.
 - **Solar Systems:** The Sun, eight planets, their moons, and other objects located within the Milky Way galaxy. Mercury, Venus, Earth, and Mars are inner, *rocky planets* closest to the Sun. Jupiter, Saturn, Uranus, and Neptune are the outer, *gaseous planets* furthest from the Sun.
 - **The Sun:** The center of Earth's solar system. The alignment of the Sun, Earth, and the moon create two types of eclipse. A *lunar eclipse* occurs when Earth comes between the Sun and the moon. A *solar eclipse* occurs when the moon comes between the Sun and Earth. A solar eclipse can not be viewed with the naked eye, but can be seen with a pin hole projector, which casts a shadow on a sheet of white paper.
 - **Earth's Moon:** The moon does not make light, but reflects light from the sun. It seems to change shape because only a portion of the moon can be seen from the earth during the various lunar phases. The relationship of the Sun and the moon with Earth influences large bodies of water. The periodic rise and fall of water levels is called a tide and the shift occurs approximately every 12 hours.
 - **Earth's Relationship with the Sun:** *Axis* - Imaginary line that passes through the center of Earth from pole to pole. *Tilt* - The angle the planet is positioned in creates the seasons. *Rotation* - The spinning of Earth that creates day and night. *Revolution* - The movement of Earth around the Sun that creates a year. *Orbit* - The path Earth stays in while moving around the sun.
 - **Weather:** Happening in the atmosphere at a particular place and time. It can change daily and is dependent upon the Sun.
 - **Climate:** The weather conditions of a particular place over time. The main characteristics are the amount of precipitation and the temperature for different times of the year.
 - **Factors that Affect Weather and Climate:**
 - Sun* - Light energy hits Earth's surface and warms it, this heat warms the atmosphere.
 - Greenhouse Effect* - The process by which gases in the atmosphere absorb heat from Earth's surface and keep Earth warm. Without it the heat would be lost into space.
 - Tilt of the Earth* - Earth is tilted on its axis so that different areas are closer to the Sun as the planet revolves. This influences amounts of daylight and temperatures.
 - Air Pressure* - The pressing down of air on Earth. Low air pressure is when warm air rises away from the planet causing warmer temperatures and stormy weather. High air pressure is when cool air sinks towards the planet causing cooler temperatures and clear skies.
 - Bodies of Water* - Ocean currents can carry water that is cooler or warmer than the ocean water around them, affecting climate of nearby land.
 - Wind* - Carries weather conditions from places passed over, in the US winds generally blow from west to east.
 - Shape of the Land* - Low, flat land is warmer than higher elevations where climates are usually cooler. The side of a mountain range closest to an ocean tends to have a cool humid climate. As the air reaches the other side of the mountains it becomes drier.
 - Natural Events* - Volcanoes, El Nino, and global warming all influence weather and climate.
-

Fine Arts

- **Instructional Strategies:** The intent of fine arts instruction is to introduce activities designed to develop students' creative and critical thinking skills. In addition to developing these thinking skills, students should be made aware of the historical, societal, and cultural aspects of the arts and also be encouraged to appreciate and critique their own work and the works of others.
- **Goal of Art Education:** To develop visual literacy and provide students with opportunities to examine and react to different forms of art, as well as develop their own artistic abilities.

Content Overview

- **Perception:** Understanding or insight based on experiences and an awareness of one's environment. Kindergarten introduces basic ideas of color, texture, and forms in the environment and each grade subsequently adds to the study of the art elements in order to develop perception.
- **Artistic Development:** Children go through a *scribbling* stage where there is no intent to draw a picture, a *pre-schematic* stage centered around their thoughts instead of reality, and a *schematic* stage that portrays what the child actually sees with objects showing their relationship to one another.
- **Elements of Art:** *Space* - Perspective created by the way objects are placed, an occupied space is positive and an empty space is negative. *Texture* - The way something feels physically or appears to feel in an illusion. *Line* - Extending a point to create shapes, patterns, or textures. *Shape* - Relating to two-dimensional art. *Form* - Relating to three-dimensional art.
- **Color:** *Primary* - The colors red, yellow, and blue. *Secondary* - Mixed primary colors make green, purple, and orange. *Warm* - Red, yellow, and orange. *Cool* - Green, blue, and purple. *Neutral* - White, black, and brown. *Hues* - Various characteristics of different colors: intensity is bright or dull, value is light or dark, tint is to add white, shade is to add black. *Monochromatic* - The range of tints and shades of a single color.
- **Principles of Art:** *Unity* - How components of an art piece work together. *Proportion* - Part of a piece related to the whole. *Balance* - Creates stability, symmetric halves are the same and asymmetric are different. *Movement* - Produces the look and feel of movement. *Rhythm* - Patterns used in artwork, repeated use of a visual element. *Emphasis* - Focal point or dominant part of a work. *Contrast* - Creates interest by combining the elements to break monotony.
- **Reasons People Make Art:** For enjoyment, to express thoughts and feelings, communicate ideas, record a time, place, person, or object, reinforce cultural ties and traditions, tell stories, and adorn themselves, as well as to predict the future and remember the past.
- **Music Terminology:** *Tone* - Unique quality of sound, also referred to as timbre. *Tempo* - Speed a beat recurs, number of beats per second. *Measure* - A group of beats. *Meter* - Emphasis pattern of strong and weak beats. *Pitch* - Highness and lowness of a sound, number of vibrations per second. *Duration* - Time length of a note. *Melody* - Pattern of pitches; up, down, or constant. *Harmony* - Combination of two or more pitches at the same time. *Rhythm* - Musical sounds organized in time. *Dynamics* - The volume of sound, loud or soft.
- **Musical Notation:** Shows the pitch (how high or low) and duration (length of time) of a sound, represented by fractions.
- **Musical Instruments:** Categorized as either stringed (*guitar*), wind (*flute*), or percussion (*xylophone*), as well as rhythmic (*triangle*), melodic (*recorder*), and harmonic (*autoharp*).
- **Musical Heritage:** Music is influenced by cultural groups around the world and the geographical location of neighboring cultural groups creates an environment of blended sounds. Tejano music is a combination of Mexican, German, Czech, rock, blues, and Cumbia that was created between the Mexico and Texas borders. Country music is a combination of folk, Celtic, blues, and gospel; it was also influenced by songs sung along cattle drives. Blues originated in mostly African American communities and has influenced jazz, rock, hip-hop, and country music.
- **Creative Drama:** Form of theatre in which teachers guide learners through the processes of imagination, enactment, and reflection that is the emphasis in elementary level theatre. It is a form of play-acting based on improvised dramatization and uses stories drawn from literature, history, and current events to inspire children's original thought. Complexity of plots, characters, and ideas increases with age.
- **Production-Centered Drama:** A more formal approach compared to creative drama. The shift in type of theatre instruction occurs with the transition to middle school and would most apply after sixth-grade.
- **Appropriate Audience Behavior:** Students learn audience behavior by alternating between players and observers in creative drama lessons.

Health

- **Instructional Strategies:** Teachers should encourage students to communicate with their families about health related issues and play a supportive role in teaching health. The direction of health instruction is to teach good personal choices and social responsibility through cooperative learning. Role-play is an effective means for equipping students with the tools necessary for dealing with stress, peers, and other influential factors.
- **Skeletal System:** Bones in the body that provide support and protection, as well as aid in movement.
- **Muscular System:** Skeletal, smooth, and cardiac muscles cause movement.
- **Endocrine System:** Control hormones that influence the way cells work.
- **Nervous System:** Nerves gather information for the brain to translate.
- **Digestive System:** Breaks down food into usable nutrients.
- **Excretory System:** Removal of waste from the body.
- **Respiratory System:** Brings oxygen in and lets carbon dioxide out.
- **Circulatory System:** Movement of blood throughout the body to deliver oxygen to cells.
- **Urinary System:** Removes waste from blood.
- **Immune System:** The skin, bodily fluids, lymph nodes, and white blood cells that protect against illness.
- **Reproductive System:** Male and female reproduction organs used for procreation.
- **Illness and Disease:** Illness is an acute state of feeling unwell and is temporary. Disease is a chronic and incorrect functioning of a body system. Illness and disease may be *communicable*; infectious and spread from person to person. Cancer would be a *non-communicable* form of disease and sickle-cell anemia would be *hereditary*.
- **Wellness:** An entire state of well-being, emotionally, and physically. Proper hygiene, an active lifestyle, and the role of doctors and medicine contribute to wellness.
- **Nutrition:** Guidelines on eating healthy food are described in the food pyramid, which is based on a 2,000 calorie, adult diet.
- **Social Health:** *Stress* - Result of negative situations and worry that can cause physical ailments. *Violence* - Rough, physical force, action, or treatment. *Abuse* - Physical: unexplained marks, sexual: exposure to sexual activities, and emotional: verbal such as threats, shouting, or humiliation. *Neglect* - Basic physical and emotional needs are not met. *Conflict Resolution* - Refusing conflict and reaching an agreement through negotiation.
- **Substance Abuse:** Tobacco, alcohol, prescription medications, over-the-counter medicines, and recreational/street drugs are substances students may be exposed to. Resistance education is an approach to keeping students' self-esteem high with positive goals, as well as giving them a sense of power over their environment and competence in making good choices. It involves teaching refusal skills, which are the ability to say no to negative activities, behaviors, and choices. Students need practice to be comfortable standing up to negative influences.
- **Safety:** *Traffic* - Seat belts, bike helmets, crosswalks. *Water* - Swim with adult supervision, when well rested, life preservers. *Sports* - Knee pads, helmets, different equipment. *Fire* - Stop, drop & roll, fire exit strategies. *Firearm* - Adults should keep guns and ammunition in separate locations and locked in safety boxes. Children should be taught to never touch a firearm and to tell an adult if they see one. *Stranger* - Don't talk to or go with unknown people, scream for help, and encourage parents to discuss the issue with their children. *First Aid* - CPR, Heimlich Maneuver, bleeding, burns.

Physical Education

- **Instructional Strategies:** Physical education should revolve around encouraging students' effort over their ability, as well as teaching fair play and teamwork over competition. Concepts

Content Overview

include spatial-awareness and knowing where the body moves, effort and how the body moves, plus relationships and opposite actions.

- **Cardiovascular Endurance:** The ability of the heart to efficiently deliver blood to working muscles.
- **Muscular strength:** The force produced by muscles contracting against a resistance.
- **Flexibility:** Extended range of motion.
- **Conditioning:** Continuously requiring additional effort of the body through various exercise. *Aerobic* activities work the heart through sustained effort and *anaerobic* activities build muscle through short bursts of energy.
- **Weight Control:** Balance of consumption with exercise. Body composition and the ratio of water, bone, muscle, and fat in the body determine caloric needs. The FIT Principle describes the need for exercise that is frequent enough, intense enough, and timed long enough. The average person should exercise 3-5 days a week, hard enough to increase their heart rate, and for at least 30 minutes at a time.
- **Locomotor:** Skills that move the body from one place to another.
- **Non-Locomotor:** Movement skills in a stationary place.
- **Manipulative:** Skills using objects, such as balls or hula hoops.
- **Rhythmic:** Skills to encourage the recognition of rhythm.
- **Balance:** Ability to control equilibrium.
- **Agility:** Ability to control direction and position of the body.
- **Speed:** Ability to move quickly.
- **Power:** The max force of muscles combined with speed.
- **Development of Fitness Skills:** *Pre-Control* - Beginners without control. *Control* - Advanced beginners with basic skills. *Utilization* - Intermediate capability of complex skills. *Proficient* - Advance capability of creating new movements.

Bilingual Education

- **Instructional Strategies:** Bilingual educators are expected to support multilingual and multicultural education. They should advocate the use of pedagogy and programs that yield academic success and English proficiency while valuing native language and respecting cultural and linguistic diversity.

Accelerated learning programs enhance the learning of English language learners in order to close academic gaps, while critical pedagogy programs incorporate student-centered learning based on reality.

Model literacy in functional everyday activities and through environmental print. Provide explicit instruction, build on prior knowledge, and make connections between L1 and L2. Incorporate appropriate children's literature, as well as Big Books, sight words, and phonics as key components of the early reading process. Use comprehensible input and integrate ESL techniques, such as the bottom-up approach where instruction starts with the parts and works up to the whole text.
- **Historical Background:** During the colonial period, diversity influenced multiple language instruction in early American education, which remained strong through the 1800s. Military conflicts reduced immigration and lessened the emphasis on foreign language instruction, giving way to the dominance of the English language. The early 20th Century involved Americanization of new immigrants. During this time the practice of submersion, instructing completely in English with severe punishment for speaking a native language within the school setting, was common. Studies from the mid 20th Century showed children learn best in their native language, leading to legislation in the late 20th Century to support, *but not mandate*, bilingual education for English language learners.
- **English-Only Movement:** Gained momentum in the 1980s. Currently, 24 states have passed legislation banning dual language instruction.

Content Overview

- **English-Plus Movement:** Started in 1985 in response to the English-only movement. Supporters of the English-Plus Movement advocate for dual language programs across the nation.
 - **Demographic Changes:** Characteristics of populations have an impact on bilingual education programs. The types of programs implemented in schools, as well as the support they receive from the community are determined by the values and beliefs held by people in specific areas. For example, a predominantly Hispanic community may support bilingual education with dual language instruction over transitional programs that do not emphasize maintaining the native language.
 - **Global Issues and Perspectives:** With the exception of the United States, bilingualism and multilingualism are common around the world, regardless if more than one language is officially recognized or not. Examples include Canada, Finland, Belgium, Singapore, just to name a few.
 - **Acculturation:** A blending of multiple cultures and languages, where each is valued and considered beneficial.
 - **Assimilation:** The replacement of a foreign culture and native language with American values and English, regardless of loss of history, native language, or original sense of self.
 - **Convergent Research:** Scientific research on bilingual education is conducted by various disciplines to determine appropriate instructional practices. Conclusions are formed through the examination of student achievement and this research should be considered and applied when making instructional decisions.
 - **Early-Exit Transitional Bilingual Education:** “Sink or Swim” emphasis learning English without concern for maintaining the native language and students are preferably mainstreamed by 4th grade. Research concludes early-exit programs less effective than late-exit.
 - **Late-Exit Dual Language Bilingual Education:** Supported by current research as most beneficial, emphasis is placed on teaching English while maintaining the native language and providing services for longer periods of time.
 - **Developmental Bilingual Education:** Students with a common language learn English while maintaining their native language.
 - **ESL Pullout:** Students leave the general education class for language instruction, considered expensive and the least effective.
 - **Basic Interpersonal Communication Skills:** Social language is acquired after 2 to 4 years of exposure to a foreign language, approximately the length of time spent in early-exit bilingual programs.
 - **Cognitive-Academic Language Proficiency:** Academic language is acquired after 4 to 7 years and is needed to succeed in an English-only classroom, supporting the length of time spent in late-exit bilingual programs.
 - **Whole Language Approach:** Reading aloud to children, journal writing, sustained silent reading, higher order thinking skills, choice of texts, scaffolding, graphic organizers, and SQ4R.
 - **Cognitive Academic Language Approach (CALLA):** Incorporates three strategies for English language development:
 1. *Metacognitive* strategies include organizing, planning, self-monitoring, and self-evaluating.
 2. *Cognitive* strategies include ways to improve understanding and increase retention by building on prior knowledge.
 3. *Social* strategies include ways students learn from one another or by interacting in groups.
-

Guided Practice Questions

1. To build students' phonological awareness in kindergarten, a teacher should first:
 - A. Have students identify the number of sounds heard in a variety of words.
 - B. Have students substitute initial sounds in words to make new words.
 - C. Have students identify rhyming words in a story after a class read-aloud.
 - D. Have students circle the onset and underline the rime identified in sight words.

2. A fourth grade teacher asks students to write about a personal experience. The following is the writing of one student.

My sister and I roller bladed down a hill. I went passed her reel fast. It was scary but not to hard for my sister and I. My sister said your good at this. I said I want to do it again.

Based on the writing sample, in which of the following concepts would this student benefit from specific instruction?

- A. vowel digraphs
 - B. homophones
 - C. consonant blends
 - D. affixes
3. A third-grade teacher uses a paired reading activity to increase struggling students':
 - A. comprehension
 - B. prior knowledge
 - C. reading fluency
 - D. vocabulary
 4. Which type of graphic organizer would help to identify the main points in a book about several Texas history events?
 - A. sequence chain
 - B. Venn diagram
 - C. spider map
 - D. K-W-L chart
 5. What stage of spelling development does the following writing sample represent?

I wantd to spend the nite with my frends but my mom sed no.

 - A. phonemic
 - B. transitional
 - C. conventional
 - D. pre-phonemic
 6. A sixth-grade teacher has students peer conference after they write the first draft of a research paper. Students should focus on:
 - A. Asking questions to clarify the author's ideas.
 - B. Effectively checking for errors.
 - C. Editing for writing conventions.
 - D. Brainstorming questions that help the author decide what topics to write about.

Guided Practice Questions

Use the story to answer the question that follows.

Julie had a part in the school play. She had to wear a costume. First, she put on an orange and black striped suit. Then, she painted black whiskers on her face. A pair of pointy ears finished the costume. It was time for her part. She walked on stage. A boy dressed as a mouse was holding a piece of cheese. She walked toward the boy and he ran away from her. Everyone laughed.

7. Which of the following questions would require a reader to make an inference in order to answer?
 - A. What color was Julie's costume?
 - B. What is the story mostly about?
 - C. What animal is Julie most likely dressed as?
 - D. What did Julie paint on her face?
8. A teacher is working with English Language Learners to promote literacy development. During one activity, the students tell the teacher a story and the teacher writes the story on the white board. The teacher then reads the story out loud with the students. Which of the following guidelines would be most important for the teacher to follow during this activity?
 - A. Reinforce story comprehension by having the students draw a picture.
 - B. Make grammatical corrections as she writes the students' story to show appropriate sentence structure.
 - C. Demonstrate the relationship between oral and written language by writing down exactly what the students say.
 - D. Pause after each sentence and reread what the students have said thus far.
9. The alphabetic principle, specifically graphophonemic knowledge, is most directly related to a student's ability to do which of the following:
 - A. Sing the alphabet song.
 - B. Read wordless picture books.
 - C. Identify onset and rime.
 - D. Write using invented spelling.
10. A first-grade teacher gives a group of beginning readers a set of word cards. On each card is a printed word that the students have already learned to read (e.g. *he, she, sees, loves, has, the, a, dog, cat, pail*). The teacher shows the students how to arrange the cards to make statements (e.g. *she sees the cat*). Students then create their own statements and read them aloud. One goal of this activity is to promote word recognition skills. In addition, this activity can be expected to promote writing development by:
 - A. Building students' understanding of basic syntactic structures.
 - B. Helping students learn to view their writing as a useful tool for communication.
 - C. Promoting students' recognition of similarities and differences between written and oral language.
 - D. Helping develop students' understanding of the value of writing conventions.
11. How many phonemes are in the word *grapes*?
 - A. 6
 - B. 4
 - C. 8
 - D. 5

Guided Practice Questions

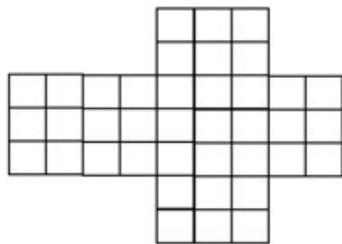
12. A second-grade class is making care packages. The students have 7 boxes that contain 9 bags of snacks each. How many care packages can they fill if each care package gets exactly two snack bags?

- A. 31.5
- B. 30
- C. 31
- D. 32

13. A third-grade teacher is planning a unit on measurement. One activity will involve length, perimeter, and area. Which of the following manipulatives would best support this teacher's objective?

- A. geoboards
- B. base ten blocks
- C. fraction sticks
- D. calculators

Use the figure to answer the question that follows.



14. What is the area of the net?

- A. 39 units³
- B. 39 units²
- C. 18 units³
- D. 18 units²

15. A student in Mrs. Robert's class is going on a day trip from San Antonio to Austin with his aunt. If the trip takes the student and his aunt 90 minutes to get to Austin and they drove 100 miles all together, what speed did the student's aunt average during the drive?

- A. 66 mph
- B. 67 mph
- C. 60 mph
- D. 70 mph

16. A bag contains 11 yellow, 6 blue, and 5 purple ribbons. Three students are allowed to keep one ribbon from the bag each. The first student pulls a yellow ribbon from the bag. The second student pulls a blue ribbon. What is the probability the third student will pull a purple ribbon from the bag?

- A. 5:20
- B. 1:9
- C. 1:4
- D. 5:22

Use the figure to answer the question that follows.

Color	Red	Blue	Green	Yellow	Total
Number of Marbles	15	15	10	20	60

17. Which of the following spinners represents the values shown in the table?

- A.
- B.
- C.
- D.

Guided Practice Questions

18. Which of the following statements represents cultural diffusion?
- A. Immigrant parents nervously allow their child to bike to school with a friend.
 - B. An American trades recipes with a Korean neighbor.
 - C. A teacher explains how to say hello in both English and Spanish.
 - D. McDonald's opens new locations in Peru and Albania.
19. A teacher is planning a lesson on maps for students to examine boundary lines and names of locations effected by flooding in the United States. Which type of map would this teacher most likely need to use for this lesson?
- A. Physical Map
 - B. Elevation Map
 - C. Political Map
 - D. Historical Map
20. The second amendment to the United States constitution is about which of the following rights?
- A. The right to keep and bear arms.
 - B. The right to privacy and unreasonable searches.
 - C. The right to due process.
 - D. The right to freedom of religion.
21. The system of checks and balances allows the executive branch to:
- A. Limit the power of the Supreme Court through pardons.
 - B. Limit the power of Congress by rewriting laws.
 - C. Limit the power of the president by passing laws over presidential veto.
 - D. Limit the power of the judicial branch by veto.
22. Rust on a metal object that has been left in the rain is an example of a:
- A. Physical change resulting from a modification in the object's state of matter.
 - B. Atoms linking together in new ways to create a chemical change.
 - C. The accumulation of a foreign substance that has adhered to the surface of the metal object.
 - D. A change in the physical properties of the object that can be viewed with the naked eye.
23. A sixth-grade science teacher strikes a match to light a Bunsen burner. The energy initially used to light the match is:
- A. mechanical
 - B. chemical
 - C. heat
 - D. radiant

Guided Practice Questions

24. The cooling of water vapor in the atmosphere happens during which stage of the water cycle?
- A. transpiration
 - B. evaporation
 - C. condensation
 - D. precipitation

Use the illustration to answer the question that follows.



25. An artist creates this pencil drawing from a photograph he previously took at the zoo. What is the most likely reason for this art?
- A. To record events that have happened in the past.
 - B. To reinforce cultural traditions such as a love of animal life.
 - C. To fulfill personal satisfaction and practice artistic skills.
 - D. To tell a story without the use of written text.

Independent Practice Questions

1. A teacher wants to promote her students' oral language development by reading stories aloud and having students retell the stories. One student is particularly shy and has difficulty remembering story facts. Which of the following describes an approach the teacher can take to support this student's needs?

 - A. Provide the student with props, such as puppets, to improve his ability to recall stories.
 - B. Allow the student to participate in literacy centers while the other students retell stories.
 - C. Prompt the student when he seems to forget the story information with positive encouragement.
 - D. Explain the story to the student prior to his turn and remind him how his classmates must take a turn as well.
2. A concerned parent contacts his child's prekindergarten teacher and asks how he can promote phonological awareness and alphabetic recognition at home. With which of the following recommendations would the teacher most likely reply?

 - A. Create alphabet flashcards and work with the child every night to improve letter-sound correspondence.
 - B. Sing the alphabet song at bath time and while riding in the car.
 - C. Use age appropriate worksheets that practice rhyming and graphophonemic knowledge.
 - D. Allow the child to choose children's books to be read aloud every day and talk about environmental print during everyday activities.
3. Which of the following words is made up of three phonemes?

 - A. shoe
 - B. toe
 - C. bat
 - D. super
4. A second-grade teacher observes that a student uses his finger to point to each word in a text as he reads aloud. The teacher responds by guiding the student to discontinue this practice. Which of the following statements best describes the rationale for this response?

 - A. Pointing to individual words while reading can distract students from systematic decoding.
 - B. Students who get in the habit of pointing to individual words while reading aloud often have difficulty learning to read silently.
 - C. Pointing to individual words while reading can interfere with the development of reading fluency.
 - D. Students who get in the habit of pointing to individual words while reading aloud often have difficulty developing phonemic awareness.
5. There are a number of struggling readers in a classroom with mostly fluent readers. The teacher would like to utilize the fluent readers' abilities to assist the struggling readers. What would be the best strategy to promote reading fluency in this classroom?

 - A. Have 15 minutes of sustained silent reading per day.
 - B. Incorporate paired and choral reading activities to model fluent reading.
 - C. Have struggling readers point to the words as they read along.
 - D. Draw names to choose the order in which students will take turns reading a portion of text aloud.
6. How many morphemes are found in the word sailors?

 - A. 4
 - B. 3
 - C. 2
 - D. 1

Independent Practice Questions

7. Which of the following activities involving a calculator would be most appropriate for assessing a second-grade student's understanding of numeration concepts?
- A. Representing a number with base-ten blocks and asking the student to display the same number on a calculator.
 - B. Giving the student a diagram indicating the sequence of calculator keys that must be pressed to enter a particular number and asking the student to use the diagram to enter the number on the calculator.
 - C. Choosing a secret number and asking the student to enter guesses of the value of that number on the calculator.
 - D. Having the student enter first a two-digit number on a calculator and then write down in order the keys he or she pressed to enter the number.
8. A school district must decide how to use a 120 acre piece of land. The school board decides to set aside 9 acres for a new middle school and 21 acres for a new high school. What percentage of land is set aside for the two new schools?
- A. 7.5%
 - B. 10.0%
 - C. 25.0%
 - D. 40.0%
9. A woman goes to a hardware store to buy tiles for a remodeling project. She needs 24 one-inch tiles in blue. The store has discontinued one-inch tiles, but carries two-inch tiles in blue. How many two-inch tiles does the woman need to buy in order to cover the same area as 24 one-inch tiles?
- A. 6
 - B. 12
 - C. 24
 - D. 48
10. A third-grade student is adding the fractions $\frac{1}{3}$, $\frac{2}{5}$, and $\frac{2}{3}$. What is the first step this student should take in solving this problem?
- A. Add the numerators of the three fractions, but not the denominators.
 - B. Find the greatest common factor of the three fractions.
 - C. Find the least common multiple of the denominators of the three fractions.
 - D. Add the numerator and denominators of the three fractions.
11. After reading about and discussing the British taxation of American colonists before the Revolutionary War, students in an elementary class dramatize England passing the Stamp Act and colonists opposing the Stamp Act. The use of dramatization will most likely increase students' awareness of the:
- A. Ability of political debate to resolve problems.
 - B. Motivations of those on both sides of a political issue.
 - C. Costs and benefits associated with revolution as a means of change.
 - D. Responsibilities of citizenship in a democratic society.
12. A significant way that social studies education has changed in recent years is that there is an increased emphasis on:
- A. Using timelines to help students remember dates and facts.
 - B. Having students read biographies and give oral book reports on historical figures.
 - C. Promoting students' understanding of multiple points of view concerning historical events.
 - D. Mastery of factual knowledge.

Independent Practice Questions

13. Students in a class have been involved in a social studies learning project about Mexico. As a culminating event the teacher will help the students prepare a meal of traditional Mexican foods. Which of the following activities relating to this event would be of greatest benefit to the students?
- A. Have a whole-group discussion about what the students have learned about Mexico.
 - B. Have students read recipes of Mexican foods and select those they can easily prepare in the classroom.
 - C. Have students work in small groups to brainstorm ideas for decorating their classroom for the event.
 - D. Have students look at the geography of Mexico to see what foods are produced in which regions.
14. A teacher is using a computer simulation software package to help her students learn social studies concepts. What is a major advantage of simulation in social studies instruction?
- A. It provides an efficient means for recording and analyzing data.
 - B. It enhances students' mapping skills.
 - C. It allows students to make decisions without taking great risks.
 - D. It promotes low-achieving students' mastery of basic skills.
15. A bill has been passed in the House and is now in the Senate where it has been voted on and failed to pass. What happens next in regard to this bill?
- A. The bill goes to the President for review.
 - B. The bill goes to the people for a referendum.
 - C. A committee meets to discuss the bill.
 - D. The bill dies and is thrown out.
16. The teacher of a fourth-grade class discusses that the community is debating removing trees from an area in town for a new parking lot. The students have immediate opinions on both sides of the issue. The teacher responds by having students write a positive feature of the opposing point of view. This activity would most likely help students:
- A. Gain an understanding of individual and group rights in a democracy.
 - B. Develop attitudes of tolerance toward differing opinions.
 - C. Recognize the importance of individual participation in a democratic society.
 - D. Develop skills for drawing valid conclusions from evidence.
17. An elementary teacher is planning an activity center where students can explore static electricity. Which set of material would be most appropriate?
- A. Insulated copper wire, batteries, and flashlight bulbs.
 - B. Balloons, bits of Styrofoam packaging material, and hard rubber rods.
 - C. Pieces of aluminum foil, metal washers, and nylon fishing line.
 - D. Salt solution, copper and zinc strips, and an electric current meter.
18. An experimental design calls for 14mL of a particular solution to be used for each of ten trials. Which of the following measurement tools would provide the most consistent measurements of volume across the ten trials?
- A. A 1mL pipette with 0.1mL calibrations.
 - B. A 25mL graduated cylinder with 1mL calibrations.
 - C. A 25mL beaker with 5mL calibrations.
 - D. A 50mL flask with 10mL calibrations.

Independent Practice Questions

19. A class is studying the effects of human behavior on living organisms. The teacher explains that humans have polluted a nature reserve where various plants and animals live. The teacher provides a food web of the ecosystem and indicates a certain plant has been eliminated. Which of the following would be an accurate prediction of the consequences of the pollution?
- A. Small mammals that eat the plant will begin eating insects.
 - B. The environment would present an alternative food source to the animals dependent on the plant.
 - C. All small mammals would rely solely on gathering nuts and berries.
 - D. Small mammals that eat the plant would decrease in numbers and in return so would the number of prey that eat the small mammals.
20. Which of the following techniques would an artist use to portray the illusion of three-dimensions?
- A. texture
 - B. perspective
 - C. color
 - D. emphasis
21. What art technique is used to create a picture with one medium, and then when the picture is painted over with watercolor the original picture is unaltered and appears in the foreground?
- A. printmaking
 - B. batik
 - C. crayon resist
 - D. etching
22. Teachers of young children can promote an understanding of the musical concepts of meter and dynamics by:
- A. Encouraging children to imitate popular singers.
 - B. Doing activities involving rhythmic speech and various chanting.
 - C. Teaching a few songs and having children repeat them regularly.
 - D. Provide good models of choral and solo singing.
23. A teacher wants to encourage his students to practice refusal skills in order to develop their confidence under pressure. Which of the following activities would be most appropriate for this purpose?
- A. Have groups of students write a story about Red Ribbon Week.
 - B. Conduct a class discussion about not giving in to peer pressure.
 - C. Role play situations where refusal skills can be used.
 - D. Invite the school counselor to discuss when refusal skills can be used.
24. The human body uses carbohydrates for:
- A. A supply of energy.
 - B. Regulating body processes.
 - C. Building muscle mass.
 - D. Strong bones.

Independent Practice Questions

25. A teacher is reviewing the letters of the alphabet with her students. To help reinforce their recognition of the shapes of letters, she divides the class into pairs. When she names a letter, the partners attempt to make the letter shape with their bodies. This activity will also promote students' physical development in which of the following areas?
- A. eye-foot coordination
 - B. spatial awareness
 - C. eye-hand coordination
 - D. tactile awareness

Bilingual Practice Questions

1. The United States' position on English language instruction and bilingual education has been influenced by a difference in perspective when compared to the rest of the world. Which of the following statements best described the difference in global perspective that has influenced the United States?
 - A. Historically, European countries have required all citizens to learn designated official languages at the expense of losing their native language.
 - B. Americanization, as a form of assimilation, required immigrants in the United States to learn English at the expense of losing their native language.
 - C. The United States has historically sought to maintain native languages and consistently provided additional instruction in English.
 - D. European societies acknowledge the natural process of acculturation, where prevalent cultures and languages completely replace those of foreign origin.
2. Which of the following best describes the bilingual education program currently believed to be most beneficial to English Language Learners?
 - A. Structured English immersion with pull out assistance and simultaneous translation during content instruction.
 - B. Developmental bilingual education with dual language immersion in classrooms that consist of both English speakers and English Language Learners.
 - C. Early-exit transitional bilingual education, which allows English Language Learners additional time to mainstream and preserves their primary language.
 - D. A late-exit dual language program, which requires second language learners to mainstream within four years.
3. A bilingual teacher is working with ELLs. After several months of dual language instruction, the teacher notices one student continues to struggle more than other students in the class. The teacher contacts the child's parents, who both speak Spanish, and learns the child will be returning to Mexico in a few months. Which of the following best describes a possible cause for the student's delay in English language development?
 - A. The parents do not expect the student to learn English.
 - B. The student's outgoing personality hinders his attention span during instruction.
 - C. The social interaction of the student with his peers interferes with his language development.
 - D. The student's home environment and expected time of residence have reduced his motivation to become proficient in English.
4. Transitional bilingual education is classified as an early-exit program and is used by many school districts in the US. The reason for the popularity of this program could most be attributed to:
 - A. The short time period for mainstreaming ELL students.
 - B. The positive influence on ELL students proven by current research.
 - C. The encouragement of biliteracy where students use both L1 and L2.
 - D. Legislation mandates the use of early-exit programs in all districts.

Bilingual Practice Questions

5. In 2001, the No Child Left Behind Act changed legislation for the US education system. In regards to ELL students, a key provision is to:
 - A. Allow local autonomy in the implementation of bilingual ed services.
 - B. Empower parents and children within the school system.
 - C. Allow the federal government control over the education process.
 - D. Promote bilingualism in the United States.
6. Developmental bilingual education began in the 1970s as an alternative to transitional bilingual education. What is one main difference between the two bilingual education models?
 - A. TBE is remedial and promotes the maintenance of L1 and L2.
 - B. DBE is late exit and designed to maintain L1 and L2.
 - C. DBE is an early exit model and designed to promote bilingualism.
 - D. TBE promotes the transfer of literacy skills from students' L1 to L2..
7. A teacher is planning a unit using sheltered English instruction. Convergent research shows this method is most appropriate for students who are:
 - A. Field independent and have a strong foundation in their L1.
 - B. At the intermediate to advanced proficiency level in English.
 - C. Native speakers of a language other than Spanish.
 - D. Already literate in their native language.
8. The LPAC is planning meeting to determine the appropriate placement of several new students referred for bilingual education services. While discussing a particular kindergarten student, a committee member suggests utilizing the school's newcomer program. Traditionally, newcomer programs are designed to address the language and cultural needs of students:
 - A. From low socioeconomic backgrounds.
 - B. From nontraditional backgrounds without prior schooling.
 - C. Who are at the intermediate or advanced level of proficiency in English.
 - D. With parents who have some knowledge of the English language.
9. Effective approaches for teaching ELLs are:
 - A. Teacher paced and based on the complexity of grammatical structures.
 - B. Focused on grammar first and communication second.
 - C. Student-centered and communication driven.
 - D. Teacher-centered and multicultural in nature.
10. ELLs might have trouble with figures of speech, such as the meaning of the following statement: *All the gold in Fort Knox would not make me change my opinion.* Which of the following represents the concept needed to understand this statement's meaning?
 - A. metaphor
 - B. simile
 - C. allusion
 - D. hyperbole

Bilingual Practice Questions

11. Researchers have identified information about the development of second language that can be useful in the classroom. Identify the statement that best summarizes the research findings associated with second language development and the age of initial exposure:
- A. Children exposed before puberty have difficulty with pronunciation.
 - B. Children exposed after puberty will have similar proficiency as younger children.
 - C. Overall, younger children have more difficulties than older children.
 - D. Children exposed before puberty have better pronunciation than older children.
12. One of the most effective strategies for students in the preproduction stage of language is the total physical response. In relation to this command-based approach, teachers can promote language development by:
- A. The use of direct teaching instruction on the structure of language.
 - B. Modeling language and contextualizing instruction through the use of concrete objects.
 - C. Using convergent questioning when assessing student understanding.
 - D. Using divergent questioning when assessing student understanding.
13. When analyzing and interpreting assessment data from culturally and linguistically diverse students, teachers must consider:
- A. The main objective of the assessment is to make students feel valued and wanted in school.
 - B. Students go through different stages of development and these stages should not affect the way they are assessed.
 - C. Students might express potential differently because of linguistic and cultural influences.
 - D. Students may have cultural and language deficits that can preclude them from effective participation in the testing process
14. Joe is literate in his native language and he possesses a strong background in math, social studies, and science. Once he came to the US, he began using that knowledge from his native language as a foundation for learning new concepts in English. What strategy does this describe?
- A. metacognitive
 - B. cognitive
 - C. social
 - D. mnemonic

Note Page

Use this paper for additional notes or as scratch paper when answering the practice questions.

Response Form

Directions: Please tear this response form out of your booklet. Record your answers to each of the 25 independent practice questions beginning on page 40 in the appropriate bubbles. After completing the questions, mark your responses to the survey below and return this form to the instructor.

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| 1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 6. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 11. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 16. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 21. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
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| 5. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 10. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 15. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 20. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 25. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |

Please circle the corresponding rating on a scale of 1 to 5, where 1 is *strongly disagree* and 5 is *strongly agree*, that best represents your opinion of today's review. Use the back of the page for additional comments as needed.

The instructor was knowledgeable and well prepared. 1 - 2 - 3 - 4 - 5

The materials supported the presentation and were clearly explained. 1 - 2 - 3 - 4 - 5

The timing of the review was appropriate for the topic. 1 - 2 - 3 - 4 - 5

This review helped me feel more prepared for the exam. 1 - 2 - 3 - 4 - 5

What did you like *most* about the review?

What did you like *least* about the review?

Answer Key

Guided Practice

1. C
2. B
3. C
4. C
5. B
6. A
7. C
8. C
9. D
10. A
11. D
12. C
13. A
14. B
15. B
16. C
17. D
18. D
19. C
20. A
21. A
22. B
23. A
24. C
25. C

Independent Practice

1. A
2. D
3. C
4. C
5. B
6. B
7. A
8. C
9. A
10. C
11. B
12. C
13. D
14. C
15. C
16. B
17. B
18. B
19. D
20. B
21. C
22. B
23. C
24. A
25. B

Bilingual Practice

1. B
2. B
3. D
4. A
5. A
6. B
7. B
8. B
9. C
10. C
11. D
12. B
13. C
14. B