



WORLD BOOK

Typical Course of Study: Grade 3

Grade 3 Math

Measurement and Data

- Tell and write time to nearest minute
- Solve word problems involving addition and subtraction of time
- Measure and estimate liquid volumes and masses of objects
- Solve word problems involving four operations with masses or volumes
- Generate measurement data, measuring lengths to halves and fourths of an inch
- Understand how concepts of area relate to multiplication and to addition
- Recognize and measure perimeter
- Measure areas by counting unit squares
- Multiply side lengths to find areas of rectangles in real-world problems
- Recognize area as additive
- Solve real-world and mathematical problems involving perimeters of polygons
- Use tiles and pictures to represent areas
- Understand that data are sets of individual numerical facts or measurements
- Interpret information and solve problems from data on graphs and tables
- Draw a picture graph or scaled bar graph to represent a set of data

Algebraic Thinking and Operations with Whole Numbers

- Understand products as total number of objects in a number of same-size groups
- Understand quotients as the number of objects in each share when a total is equally partitioned
- Understand division as a problem of finding an unknown factor
- Know from memory all products of two one-digit numbers
- Apply commutative, associative, and distributive properties to multiply and divide
- Multiply and divide fluently within 100
- Find unknown numbers in multiplication or division problems within 100
- Use drawings and equations with a symbol to represent an unknown number
- Solve two-step word problems involving the four operations
- Identify arithmetic patterns (5 times a number always ends in 5 or 0)
- Assess the reasonableness of answers (using estimation and mental calculation)

Fractions and Operations

- Understand a fraction as a quantity formed when a whole is partitioned into equal parts
- Understand that a unit fraction ($1/b$) is the quantity formed by one part when the whole is partitioned into b equal parts
- Represent fractions on a number line diagram
- Compare fractions by reasoning about their size
- Explain the concept of fraction equivalence
- Recognize and generate simple equivalent fractions
- Create models to show equivalent fractions
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Geometry and Spatial Relationships

- Identify and describe a variety of 2-dimensional and 3-dimensional shapes
- Understand that shapes in different categories may share attributes
- Understand that rectangles, rhombuses, squares, and trapezoids are all quadrilaterals

- Categorize shapes by their attributes
- Partition shapes into equal areas, describing each part as a unit fraction of the whole (for a shape partitioned into 6 parts with equal area, each part is $\frac{1}{6}$ of the whole)

Numbers and Operations

- Understand and use place value to 1,000
- Round numbers to the nearest 10 or 100
- Add and subtract within 1,000 using place value understandings
- Multiply one-digit whole numbers by multiples of 10

Grade 3 Language Arts

Reading Literature and Informational Text

- Identify main topic, idea, lesson, moral, or argument in grade-level text
- Show understanding of key details in a text
- Identify text evidence to support the author's message or reader's responses
- Retell stories, including tales from diverse cultures
- Describe characters in a story and how characters' actions contribute to the plot
- Determine meanings of words or phrases as used in a text
- Describe effects and uses of words and phrases in passages
- Describe overall structure of a passage and its effect on the message
- Describe how parts of a story, poem, or drama build on other parts
- Use text features and search tools to locate relevant information
- Explain connections between events, ideas, concepts, or steps in a text
- Explain differences in points of view of characters, narrators, or writers
- Explain differences between an author's point of view and their own
- Explain how visual images and graphics contribute to and clarify a text
- Compare and contrast themes, settings, plots, or ideas in two texts on the same topic or by the same author
- By the end of the academic year, read and understand grade-level literary and informational texts at grade level independently and with proficiency

Speaking and Listening

- Express ideas and feelings clearly
- Speak clearly and audibly in sensible sentences
- Describe people, places, things, and events with relevant details
- Add visual components to a speech to clarify ideas, feelings, and thoughts
- Give and follow simple two-step directions
- Participate in conversations with diverse partners and groups
- Follow agreed-upon rules for discussions
- Listen and respond to others with focus and care
- Ask and answer questions about key details in a text or in an oral presentation
- Present a report or tell a story with appropriate facts and relevant details
- Create audio recordings of stories or poems

Foundational Skills

- Apply grade-level phonics and word analysis skills in reading words
- Know meanings of most common prefixes and suffixes
- Decode irregularly spelled grade-level words and multi-syllable words
- Read grade-level texts with purpose and understanding
- Orally read grade-level texts with accuracy, expression, and appropriate rate
- Confirm and self-correct words during oral reading

Vocabulary

- Use context clues to determine word and phrase meanings
- Use word structure clues to determine word meanings

- Use synonyms and antonyms to clarify and explain word meanings
- Use dictionaries and glossaries (print and digital) to determine or clarify word meaning
- Understand and use figurative language (similes, metaphors, idioms, adages, proverbs, etc.)
- Distinguish literal and nonliteral meanings of words in context
- Distinguish shades of meanings among related words
- Learn and use grade-level general academic vocabulary

English Language Skills

- Identify nouns, pronouns, verbs, adjectives, and adverbs and their functions in specific sentences
- Form and use regular and irregular nouns and verbs and verb tenses
- Form and use conjunctions, superlative adjectives, and superlative adverbs
- Produce complete simple, compound, and complex sentences
- Capitalize proper nouns and appropriate words in titles
- Use end punctuation, commas, and apostrophes
- Punctuate dialogue correctly
- Use grade-level spelling patterns and rules
- Consult reference materials to check spellings
- Correctly use the English language when speaking, reading, or writing
- Know when to use formal and informal English

Writing

- Write opinion, informative, or explanatory pieces that state a topic or purpose, supply relevant facts and reasons, and present a conclusion
- Write stories that include details, put events in order, and provide a conclusion
- Make improvements and needed changes to written work
- Use transitional words and phrases to connect ideas
- Add dialogue and descriptions to develop characters and events
- Take part in shared research and writing projects
- Conduct short research task on a topic or question
- Gather information from print and digital sources and take notes
- Create written and visual works to summarize and share information
- Use tools, including digital tools, to produce and publish writing
- Write regularly for a variety of tasks, purposes, and audiences

Grade 3 Science

Life Science

- Life cycles of plants and animals
- Plant and animal adaptation and survival
- Plant and animal behaviors
- Learned and inherited traits of living things
- Variations of inherited traits
- Relationships between traits of organisms and their survival
- Influence of environment on plant and animal traits
- Relationships in an ecosystem
- Effects of environmental changes on organisms in the environment
- Animal behavior and social interactions
- Evidence of extinct plant and animals
- Biodiversity

Earth and Space Science

- Weather and climate patterns and predictions
- Climate variations
- Natural hazards resulting from natural processes

Physical Science

- Physical properties of matter (size, shape, weight, volume, flexibility, luster, color, texture, hardness, odor, etc.)
- Forms of energy (heat, sound, chemical, mechanical, and electrical)
- Heat release and transfer
- Energy transformations (such as heat to light)
- Interactions of matter and energy
- Sound (pitch, vibrations, volume) and how sound travels
- Sizes and kinds of forces, including gravity
- Relationships between force and motion
- Effects of balanced and unbalanced forces on an object
- Patterns and measurements of an object's motion
- Electric or magnetic interactions between objects not in contact with each other
- Simple machines

Grade 3 Social Science

History

- Uniqueness of the history of each community or culture
- Ways cultural history is passed from one generation to the next (legends, oral histories, folktales, etc.)
- Key events in history of selected world communities
- Key places and people in history of selected world communities
- Timelines of historical features of selected world communities
- Technological developments in transportation and communication in selected world communities
- Development of trade in selected world communities

Economics

- Available resources, human and natural, for the selected world community
- How the selected community uses resources to meet basic needs and wants
- Concepts of surplus and scarcity in relation to the selected community
- Ways of meeting basic needs of food, clothing, and shelter in the selected community
- Ways people earn a living now and in the past in the selected community
- Goods and services produced in each selected community
- Goods products or services exported and imported in the selected community
- The role of trade in the selected community

Community and Culture

- Comparison of family and school activities in own community with those of selected world communities
- Comparison of cultural traditions in own community with those of selected world communities
- Components of culture and diversity of communities (language, customs, traditions, beliefs, practices, celebrations)
- Cultural features, traditions, and symbols of selected world communities
- Arts, music, dance, and literature of selected world communities
- Concept of cultural diffusion and how it happens
- Comparison of effects of cultural communities in selected world communities on people, ideas, practices, and products

Geography

- Earth's equator, hemispheres, continents, and oceans
- Earth's regions
- Earth's grid system (lines of latitude and longitude)
- Understanding of map features and use, including scale
- Comparing locations of selected world communities to one's own country
- Use of a variety of maps to locate and examine selected world communities
- Political and physical features of selected communities

- Ways physical and climate features influence people in selected communities
- Use of maps to identify one's own location and relative locations
- Location of one's own local land, regions, river systems, and highways
- Physical and human features of state (or province, territory) and neighboring states (or provinces, territories)
- How geographical features affect population patterns
- Human adaptations to the geography of the specified world community
- Construction of maps, tables, graphs, charts

Citizenship

- Concept of democracy and principles of democratic government
- Type of government in the selected community; comparison to other governments
- How leaders are chosen in the selected world community
- How problems are solved in the selected world community
- Ways the government keeps people safe, maintains order, provides for needs
- Role of citizens in the selected community
- Concept of universal human rights of fair treatment and fulfillment of needs
- Examination of the concept of human rights in the selected community

Grade 3 Health and Safety

- Concept and examples of health choices and their consequences
- Influences on health choices (peers, media, family, community, culture)
- Elements of and reasons for good personal hygiene
- Types of nutrients and healthy choices for food
- Regular participation in active play and other physical activities (contingent on any physical or other limitations)
- Reasons to get enough sleep and relaxation
- Strategies for a personal health plan
- Safety rules for daily and recreational activities (walking, being near streets, water play, riding in a car, biking, etc.)
- Ways to prevent common childhood injuries (including poisoning)
- Basic structures and functions of the human body
- Symptoms of common illnesses; causes of diseases
- Ways body defends against germs
- Measures to prevent spread of disease
- Practicing procedures for response to emergencies, including using telephone
- Getting out of house or school in event of fire
- Appropriate skills to identify, avoid, and cope with potentially dangerous situations
- Identify safe behaviors around strangers
- Harmful effects of tobacco, alcohol, and drugs on health
- Understanding of human development and changes
- Development of self-confidence and self-esteem
- Respect and consideration for all individuals
- Ways to identify, express, and manage feelings appropriately
- Positive social practices with peers, in home, and community
- Differences between tattling and reporting
- Bullying, alternative behaviors to bullying, and appropriate responses to bullying
- Strategies for resolving conflicts with peers and others
- Skills for meeting people, making friends, and being a good friend
- Getting personal support from family; communication with family
- How and where to get help in making health decisions

Grade 3 Arts

- Perform and create artistic movements and patterns
- Identify melody, rhythm, harmony, and timbre in musical selections
- Respond to sounds and sound patterns with body movements
- Improvise music with classroom instruments
- Listen, describe, and respond to a variety of music
- Read and write patterns with musical notes
- Identify some common musical instruments by sight and sound
- Identify some musical forms
- Sing age-appropriate songs with accuracy from memory
- Improvise dramatizations of stories or ideas
- Take part in writing scripts, designing sets, and performing group dramas
- Create costumes and props for a performance
- Observe patterns in nature and works of art
- Identify and describe elements in works of visual art (line, color, texture, shapes/form, space, value)
- Create original works of visual art in various media and dimensions
- Express observations, ideas, or feelings through music, drama, or visual art
- Identify and discuss some well-known works of dance, drama, music, or visual arts and some artists, actors, writers, musicians, choreographers, or composers
- Analyze a variety of works of dance, music, drama, and visual arts
- Learn and use vocabulary of dance, music, drama, and visual arts
- Describe techniques for a given form of art
- Compare and contrast two works of art
- Understand how culture affects art and how art reflects culture
- Demonstrate appropriate audience skills for live artistic performances

Grade 3 Technology

- Concepts, characteristics, and real-life uses of technology
- Basic parts of technology systems and basic technological devices
- Continued development of keyboard skills
- Opening, closing, saving, sending, and storing files, applications, and programs
- Effective use of available grade-level technology
- Use of tools and devices to complete tasks and solve problems
- Use of tools to produce creative original works
- Use of tools to interact and exchange ideas with peers, teacher, parents, or other students
- Use of tools and devices to develop cultural understanding
- Use of tools to access information for an inquiry project
- Exploring virtual environments, simulations, programs, models, and applications
- Participation in group collaborative interactive projects and activities
- Developing, printing, and publishing in print and digital formats
- Evaluating content, applications, and programs
- Digital citizenship, etiquette, fair use guidelines, and copyrights
- Practice of safe online behavior
- Responsible care of digital equipment
- Positive attitudes toward technology for learning
- Demonstrating openness to learning and using new technologies