

# McDowell Elementary

## Fifth Grade Curriculum

### READING

- **Phonics/Decoding Skills/Decoding Longer Words**
  - short vowels
  - apply phonics/decoding strategy
  - consonant clusters
  - consonant digraphs
  - CVC, CVCe, other patterns
  - long vowels, vowel pairs
  - r-controlled vowels
  - possessives
  - contractions
  - compound words
  - syllabication pattern
  - affixes
  - stressed and unstressed syllables
  - three syllable words
  - root words
- **Comprehension skills**
  - compare and contrast
  - predict outcomes
  - understand sequence of events
  - recognize story structure
  - determine cause and effect
  - determine text organization
  - draw conclusions
  - categorize and classify
  - note important details
  - recognize main idea, topic and supporting details
  - follow directions, oral and written
  - make inferences
  - make judgments
  - solve problems/make decisions
  - make generalizations
  - understand genres
  - recognize author's viewpoint
  - recognize fact and opinion
  - visualize
  - recognize persuasive devices and propaganda
- **Comprehension Strategies**
  - predict/infer
  - summarize
  - phonics/decoding
  - evaluate
  - question
  - monitor/clarify
- **Reading fluency**
  - read fluently at appropriate rate
- **Information/Study Skills**
  - use a dictionary/glossary
  - use the library
  - use graphic organizers

- interview
- read/use charts, tables, graphs, schedules, time lines, diagrams, calendars
- follow directions
- locate/use parts of a book
- use print references
- take notes
- use newspapers/magazines
- skim/scan
- use electronic resources
- outline
- adjust reading rate
- paraphrase and synthesize
- select and evaluate sources
- use multiple sources
- reading primary sources
- categorize information
- compare information
- complete applications and forms
- create and organize disk files
- **Test-Taking Skills**
  - answering multiple-choice items
  - completing fill-in-the-blank items
  - writing an answer to a question
  - writing a personal response
  - answering vocabulary items
  - writing an opinion essay

### **SPELLING/VOCABULARY**

- **Spelling**
  - recognize sound and letter patterns
  - understand word structure
  - spell words frequently misspelled
  - use meaning relationships
- **Vocabulary**
  - recognize and read high-frequency words
  - vocabulary expansion
  - content-area words
  - alphabetical order to fourth/fifth letter
  - antonyms
  - synonyms
  - homophones
  - multiple-meaning words
  - compound words
  - dictionary, glossary, and thesaurus
  - word families
  - use context
  - make analogies
  - word histories/connotations
  - understand idioms
  - jargon, slang

### **WRITING AND LANGUAGE ARTS**

- **Grammar, Usage, and Mechanics**
  - punctuation
  - capitalization
  - complete sentences

- types of sentences
- subjects and predicates
- nouns
- plurals
- possessives
- verbs
- present, past, and future tense
- subject-verb agreement
- irregular verbs
- adjectives
- comparisons
- pronouns
- adverbs
- prepositions/prepositional phrases
- conjunctions
- interjections
- **Writing Process**
  - independent writing
  - use the five-step writing process
- **Writing Skills**
  - read as a writer
  - use technology
  - writer's craft skills
- **Prewriting Skills**
  - choose a topic
  - organize and plan
  - use graphic organizers
  - discuss
  - consider audience and purpose
  - take notes
- **Drafting Skills**
  - write a good beginning, middle, and end
  - organize ideas in logical order
  - use details, facts, examples
  - state topic/purpose
  - find/evaluate information
  - use voice
- **Revision Skills**
  - tell more
  - elaborate/expand sentences with details
  - use exact words
  - self-assessment
  - conference
  - perform sentence combining
  - focus on purpose, audience, organization
  - delete
- **Proofreading Skills**
  - capitalize/punctuate
  - use complete sentences
  - 5 sentences in paragraph
  - spell accurately
  - use correct grammar and usage
- **Modes of Writing**
  - write in a journal
  - write a letter
  - write a story
  - write poetry
  - do descriptive writing

- write instructions/directions
- write in a variety of forms
- write a personal narrative
- write a research report
- use persuasive writing
- expository writing
- write a personal essay
- **Traits of Writing**
  - ideas
  - organization
  - word choice
  - conventions
  - presentation
  - voice
  - sentence fluency
- **Listening/Speaking/Viewing**
  - compare information
  - listen for comprehension
  - retell/summarize/report
  - listen for information
  - listen to/read aloud poetry
  - participate in group discussion/conversation
  - tell a story/retell a story
  - listen to a story
  - give and follow directions
  - view illustrations
  - view/evaluate media, information, and art
  - dramatize
  - visualize
  - use nonverbal cues
  - participate in reader's theater/choral reading
  - deliver a presentation/speech/report
  - resolve a conflict, problem
  - explain a process
  - hold a debate
  - plan a multimedia presentation
  - listen to take notes/summarize
  - dictation

## **MATHEMATICS**

- **Numbers and Operations-Numeration**
  - digits
  - reading and writing numbers
  - place value
  - number line
  - expanded notation
- **Numbers and Operations – Operations**
  - addends and sum
  - adding whole numbers
  - regrouping
  - adding decimals
  - adding fractions and mixed numbers
  - adding and subtracting signed numbers
  - mental addition strategies
  - difference, subtrahend, and minuend
  - subtracting whole numbers
  - regrouping (borrowing)
  - subtracting decimals
  - subtracting fractions and mixed numbers

- cross multiplication
- multiplying and dividing with signed numbers
- mental subtraction strategies
- multiplication as repeated addition
- factors and product
- multiplication table
- regrouping
- multiplication notations
- multiplying whole numbers
- cross multiplication
- multiplying signed numbers
- mental multiplication strategies
- dividend, divisor, and quotient
- dividing with whole numbers
- remainders
- dividing with decimals
- dividing with fractions and mixed numbers
- mental division strategies
- division notations
- powers as repeated multiplication
- base and exponent
- powers of whole numbers, decimals, fractions
- scientific notation
- relationship of place value to powers of 10
- square roots
- using a calculator to find square roots
- approximating roots
- mastering basic facts
- order of operation
- inverse operation
- **Numbers and Operations – *Fractions Concepts***
  - reading and writing fractions and mixed numbers
  - numerator and denominator
  - fractional part of a whole, group, set, or number
  - comparing and ordering fractions
  - equivalent fractions
  - reducing
  - improper fractions
  - least common denominator
  - converting fractions to decimals and percents
  - reciprocals
  - reading and writing decimals
  - comparing and ordering decimals
  - converting decimals to fractions and percents
  - reading and writing percents
  - identifying/finding percent of a whole, group, set or number
  - converting percents to fractions and decimals
  - percents greater than 100%
  - rates
  - ratios and proportions
  - ratio word problems
- **Numbers and Operations – *Estimation***
  - rounding whole numbers, decimals, mixed numbers
  - estimating sums, differences, products, quotients
  - estimating roots
  - using estimation to verify reasonableness of calculations
  - fact families
  - even and odd

- factors, multiples, and divisibility
- prime and composite numbers
- greatest common factor
- least common multiple
- divisibility tests
- prime factorization
- counting numbers
- whole numbers
- decimal number system
- negative numbers
- integers
- Roman numerals
- deciding whether an exact answer or approximate answer is desired
- **Measurement**
  - length (inch, foot, yard, mile)
  - capacity (cup, pint, quart, gallon)
  - weight (ounce, pound, ton)
  - metric prefixes
  - length (meter)
  - capacity (liter)
  - mass (kilogram)
  - Fahrenheit scale
  - Celsius scale
  - second, minutes, and hours
  - writing time of day
  - square, cubic units
  - degrees of arc
  - standard abbreviations
  - conversion in the U.S. Customary System
  - conversion in the metric system
  - simplifying mixed measures
  - length
  - time
  - capacity
  - mass/weight
  - angles
  - rotation (clockwise and counterclockwise)
  - benchmarks for measurements
  - measurement of activities
  - estimating measurement
  - selecting appropriate units
  - determining whether measures are reasonable
  - scale drawings (2 and 3 dimensional)
  - ruler
  - protractor
  - thermometer
  - balance scale
  - measuring cup
  - stopwatch
- **Geometry**
  - points
  - segments
  - rays
  - lines
  - angles
  - planes
  - parallel, perpendicular, and intersecting lines
  - horizontal, vertical, and oblique

- acute, obtuse, right, and straight angles
- complementary and supplementary
- angles formed by transversals
- calculate to find unknown angle measures
- angle bisectors
- describing and classifying polygons
- drawing polygons
- sides and vertices
- perimeter of polygons
- area of polygons
- regular polygons
- similarity and congruence
- complex figures
- interior and exterior angles
- sum of angle measures
- triangle perimeter and area
- acute, obtuse, and right triangles
- equilateral, isosceles, and scalene triangles
- parallelograms
- squares
- rhombuses
- rectangles
- trapezoids
- trapeziums
- circle centers
- radius and diameter
- circumference
- Pi
- area
- arcs
- sectors
- concentric circles
- describing and classifying solids
- faces, edges, and vertices of solids
- drawing solids
- volume of solids, cylinders, pyramids
- surface area of solids
- polyhedrons
- nets (maps)
- polygons perimeter
- circles perimeter
- area of rectangles, triangles, parallelograms, trapezoids, circles
- complex figures
- estimating area
- prisms
- naming and graphing ordered pairs
- creating straight line drawings
- tessellations
- line symmetry
- circles construction
- rotation
- reflection
- translation
- **Algebra**
  - numeric patterns
  - geometric patterns
  - story-problem patterns
  - triangular numbers

- arithmetic sequences
- geometric sequences
- pictorial sequences
- fibonacci sequences
- adding and subtracting integers/signed numbers
- multiplying and dividing integers/signed numbers
- variables
- symbols of inclusion
- substitution
- solving equations for an unknown
- solving multistep equations
- writing an equation for a given word problem
- transforming equations (using the addition and multiplication rules)
- formulas
- input/output tables
- function rules
- graphs
- linear functions
- analyzing functional relationships
- rates
- associative property of addition, multiplication
- commutative property of addition, multiplication
- identify property of addition, multiplication
- distributive property
- zero property of multiplication
- number line graphing
- coordinate plane
- graphing points
- graphing lines
- **Statistics, Data Analysis, and Probability**
  - collect data: tallies, surveys, quantitative data, qualitative data, closed and open questions, populations, representative samples, bias
  - organize an analyzing data: tables, frequency tables, average, mean, median, mode, and range
  - choosing an appropriate graph
  - outliers
  - making predictions based on statistics
  - representing data: legend (key), bar graphs, line graphs, circle graphs, pictographs, coordinate planes, comparative bar graphs, histograms, double-line graphs, line plots, stem and leaf plots
  - notations for expressing probability
  - classifying events as impossible, unlikely, likely, or certain
  - simple probability
  - chance
  - odds
  - outcomes
  - tree diagrams
  - permutations
  - performing probability experiments
  - making predictions based on experiments
  - accuracy of predictions as affected by number of trials
  - compound experiments
  - experiment tables
- **Problem Solving**
  - breaking a problem into simpler parts
  - acting out a problem
  - using logical reasoning
  - drawing a diagram, picture

- finding a pattern
- identifying key words
- working backward
- making a chart, graph, or list
- guessing and checking (trial and error)
- distinguishing between relevant and irrelevant information
- finding missing information
- extending patterns
- applying solution strategies for simple problems to complex problems
- using an algorithm
- **Communication**
  - group work
  - written communication
  - oral communication
  - justifying solutions
- **Mathematical Reasoning**
  - algebraic reasoning
  - spatial reasoning
  - justifying solutions
  - developing generalizations
  - formulating conjectures
  - classifying and sorting
  - using money to represent place value
  - writing money amounts properly
  - estimating price totals
  - change back in money transactions
  - price discount
  - tax
  - simple and compound interest
  - interpreting remainders in word problems
  - debt
  - using integers to describe real-world situations
  - symmetry in nature, art, and architecture
  - representing everyday situations with graphs and algebraically
  - history of mathematics

## **SOCIAL STUDIES**

- **History**
  - links to the past and how we know – origins of today’s institutions, cultural heritage of self, others, archaeologist’s discoveries, limit on information about past
  - empathy
  - time and chronology – use of B.C. and A.D.
  - cause and effect – settlement, expansion, wars
  - continuity and change – reasons for
  - interrelatedness – of belief systems
  - women, minorities – role of American Indian, Asians, blacks, Hispanics, women in early society
- **Geography**
  - location – different activities in different locations
  - place – comparative historical analysis of places
  - human-environment interaction – use of natural resources, effect on technology
  - movement – migrations of people, movement of goods
  - regions – compare/contrast of regions over time
- **Economics**
  - basic concepts – distributions of resources

- exchange systems – early exchange systems, role of trade routes
- basic economic questions – early U.S. history, role of government
- interdependence – between people, states, nations
- technology – Industrial Revolution
- **Culture**
  - cultural understanding – role of education
  - cultural complexity – identify in U.S. at different time periods
  - multicultural society - contributions of Indians, blacks, immigrants
  - similarities and differences –interactions and conflicts of cultures U.S.
  - literature and the arts – understand and appreciate
  - myths and legends – analyze heroes, heroines
- **Ethics and Belief Systems**
  - influence of religion – Pilgrims, puritans, attitudes toward slavery
  - basic belief systems – American Indians, slaves, immigrants
  - resolution of ethical issues –freedom to dissent, slavery, tolerance
- **Social and Political Systems**
  - belonging to a group – early U.S. political units, origins of public/private
  - law – reinterpretation of law over time
  - opposing ideals – in early U.S. history
  - social structure – analyze reasons for changes
  - comparative political systems – of American Indian, British, Spanish, French
  - global interdependence – identify relationships of U.S. with others
- **National Identity**
  - pluralism – origins of
  - democracy – history of in U.S.
  - American ideals and symbols – as expressed in U.S. history
  - reaffirmation of American ideals – identify past crises in U.S. history
- **Constitutional Heritage**
  - balance of power – checks and balances
  - origin of Constitution – writing of Constitution, passage of amendments
  - reinterpretation of ideals- meaning then and now
- **Citizenship**
  - individual and state
  - democratic behavior
  - selection of leaders
  - human rights
  - settlement of disputes
- **Study Skills**
  - collecting information – use library catalog, interview for information
  - organizing information –take notes, make outlines
  - presenting information – develop oral discussion skills, plan and write reports
- **Visual Learning**
  - observation – apply to historical artifacts, photos, art
  - timelines – understand B.C. and A.D., make line graphs, diagrams
  - interpretation – interpret illustrative materials, cartoons, compare media
  - symbols – history of national symbols
  - visual self-expression
- **Map and Globe Skills**
  - symbols – parallels/meridians tied to earth/sun
  - location – use longitude/latitude to locate places
  - direction – trace explorer’s routes
  - scale and distance – evaluate large and small scale maps
  - construction and use – use landmarks to draw map
- **Critical Thinking**
  - define and clarify – ask good questions

- evaluate and judge – identify facts, opinions
- solve and conclude – interpret cause and effect, draw conclusions from evidence
- **Social Participation**
  - interpersonal – recognize social needs of others
  - group work – participate in planning and setting goals

## SCIENCE

- **From Single Cells To Body Systems**
  - What are cells, and what do they do?
  - How do body systems transport materials?
  - How do bones, muscles, and nerves work together?
- **Classifying Living Things**
  - How do scientists classify living things?
  - How are animals classified?
  - How are plants classified?
- **Plants and Their Adaptations**
  - What are the functions of roots, stems, and leaves?
  - How do plants recycle materials?
  - How do plants reproduce?
  - How do people use plants?
- **Plant Processes**
  - How do plants make food?
  - How do plants respond to light and gravity?
  - How do vascular plants reproduce sexually?
  - How do plants grow?
- **Earth's Air and Water**
  - What makes up earth's atmosphere?
  - How are atmospheric conditions measured?
  - What role do oceans play in the water cycle?
  - Why is the water cycle important?
- **Earth's Weather**
  - What causes wind?
  - How do air masses affect weather?
  - What causes severe storms?
- **Weather Prediction and Climate**
  - How can weather be predicted?
  - What is climate and how does it change?
- **Earth and the Moon**
  - How do earth and the moon compare?
  - How have people explored space?
- **The Solar System**
  - What are the features of the sun?
  - What are the planets like?
  - Why do the planets stay in orbit?
- **Matter and Its Properties**
  - How can physical properties be used to identify matter?
  - How does matter change from one state to another?
  - How does matter react chemically?
- **Atoms and Elements**
  - What are atoms and elements?
  - What are compounds?
- **Energy**
  - What are kinetic and potential energy?
  - What is electric energy?
  - What are light and sound energy?
  - What are thermal and chemical energy?
- **Renewable and Nonrenewable Resources**

- What are natural resources?
- How do fossil fuels form?
- How are natural resources conserved?
- **How People Use Energy**
  - How do people use fossil fuels?
  - How can moving water generate electricity?
  - What other sources of energy do people use?

### **HANDWRITING**

-neatness through developing individual style

### **OTHER**

- Book Reports – oral and written,
- Research Reports
  - body/5-7 sentences per paragraph, closing sentence
  - note cards, cover, outline, title page, introduction, body of report, conclusion, bibliography, page numbers, table of contents, sections
- Oral Skills
  - Presentations