



ARCHDIOCESE  
*of* MILWAUKEE

*Office for Schools*

# Curriculum Guide

## Grade 4

## What is a Curriculum Guide?

Academic excellence is a hallmark of Catholic schools in the Archdiocese of Milwaukee. To assist schools in maintaining academic excellence, the archdiocese’s Office for Schools has developed curriculum guides for grades 4K-8<sup>th</sup> that identify what we want our students to know and be able to do at the end of each grade based on national, state, and local standards. With these guides as a template, each individual school develops a plan to clearly articulate what is taught, how it is taught, and how student achievement is assessed for each grade. This process of “fine tuning” results in a school specific standards-based curriculum that guides teaching and learning.

## Characteristics of a 4<sup>th</sup> Grader

- ✓ Demonstrates an interest in the wider world
- ✓ Grows in awareness of justice and fair play
- ✓ Exhibits awareness of self as individual and as a member of a group
- ✓ Recognizes need for guidelines and rules
- ✓ Acts more independently and confidently
- ✓ Begins to think of larger issues, e.g., environment, prejudice, violence, etc.
- ✓ Enjoys reading, listening to and participating in stories as well as role playing
- ✓ Develops friendships with members of the same sex
- ✓ Learns from observations as well as direct teaching
- ✓ Is able to use technology to obtain information and to communicate with others
- ✓ Displays curiosity about life, nature and people
- ✓ Desires to share and do things with others
- ✓ Develops an awareness that life requires making choices
- ✓ Is significantly influenced by teens and pre-teens in popular culture (music, television, movies)

# Grade Level 4 Expectations

## Credal Church

- Believes in the goodness of creation and God's care for it
- Understands grace as a sharing in God's life
- Appreciates the Holy Spirit as helper and guide in making good choices
- Understands Church as a community of worship, witness and service which carries on the work and mission of Christ
- Understands that God communicates gradually to us
- Understands that our faith is Trinitarian as expressed in Baptism
- Understands that the story of Adam and Eve reminds us that our first parents sinned against God
- Understands that Jesus lived, suffered and died for us, and we will rise with Christ to new life after death
- Knows that the Trinity was fully revealed to Jesus' disciples at Pentecost
  - + Understands that Scripture is God's word to us
  - + Understands and responds to the following Scriptural passages as experiences of God's love for us, our love for humanity and our need for mercy and forgiveness: Ten Commandments (Exodus 20:2-17); Sermon on the Mount (Matthew 5:1-12); Good Samaritan (Luke 10:25-37); Prodigal Son (Luke 15:11-24); Temptation of Christ (Matthew 4:1-11)
  - + Demonstrates the ability to locate the passages listed above in the Bible
  - + Knows the meaning of the covenant with Noah, Abraham and Moses (Genesis 9:1-3, Genesis 17:1-9, Exodus 19:1-8)
- Knows that life begins at conception and grows inside the mother's body\*
- Knows that God created human beings with a body and soul\*

## Liturgy and Sacraments

- Articulates the meaning of the Sacraments of Initiation
- Celebrates the Eucharist as a sacrament of the Church's unity, reconciliation and peace
- Celebrates Reconciliation as a sacrament of conversion, God's forgiveness, mercy and love
- Recognizes the value of and knows how to examine one's conscience
- Knows how to celebrate Rite I and II of the Sacrament of Reconciliation and can articulate the communal dimension of sin and forgiveness
- Expresses sorrow for sins in a prayer of contrition
- Knows the essential importance of regular participation in Sunday Eucharist, knowing that it is a celebration of the Paschal Mystery
- Explains ways Christ is present at Mass
- Has a growing understanding of the liturgical year

## Characteristics of a Fourth Grader

- Demonstrates an interest in the wider world
- Grows in awareness of justice and fair play
- Exhibits awareness of self as individual and as a member of a group
- Recognizes need for guidelines and rules
- Acts more independently and confidently
- Begins to think of larger issues, e.g., environment, prejudice, violence, etc.
- Enjoys reading, listening to and participating in stories as well as role playing
- Develops friendships with members of the same sex
- Learns from observations as well as direct teaching
- Is able to use technology to obtain information and to communicate with others
- Displays curiosity about life, nature and people
- Desires to share and do things with others
- Develops an awareness that life requires making choices
- Is significantly influenced by teens and pre-teens in popular culture (music, television, movies)

## Moral Life

- Recognizes that all Christians are called to holiness
- Knows Jesus' Two Great Commandments of love are a Christian's way of life
- Can articulate the Ten Commandments using the traditional formula
- Sees the Corporal and Spiritual Works of Mercy as ways of responding to the needs of others
- Realizes that original sin is the human condition into which we are all born
- Recognizes conscience as the inner ability to judge between good and bad when making choices and recognizes seven capital sins
- Realizes that temptation is a pull toward something we know is sinful and that it is a part of everyone's life
  - + Responds to the Ten Commandments as rules to help us live God's life of love (Exodus 20:2-17)
  - + Learns the Beatitudes as a way of life modeled by Christ to bring happiness (Matthew 5:1-12)
  - + Differentiates between sin which is choosing to turn away from God and mistakes which are accidents (Temptations of Christ - Matthew 4:1-11)
  - + Realizes that all choices have responsibilities and consequences and are to be made in light of Gospel values (Good Samaritan - Luke 10:25-37)
  - + Recognizes the seven gifts of the Holy Spirit (Pentecost - Acts 1:1-12)
- Knows that listening to feelings can help one decide how to act\*
- Knows that he/she can talk to someone when not feeling safe\*\*
- Identifies "private and special" body parts and touches which can make a person feel uncomfortable\*\*
- Can define bullying and harassment and recognize it when it occurs\*\*

## Christian Prayer

- Understands prayer as the living relationship of the children of God with their Father, his Son and the Holy Spirit
- Prays and understands the Prayer of St. Francis as a model for peace and love in the world
- Prays the Our Father
- Understands the Nicene and Apostles Creeds as statements of Catholic beliefs
- Reviews the memorization of previous prayers
- Memorizes the Glory to the Father (Doxology) and the Apostles Creed
- Recognizes forms of popular piety such as the Rosary and the Stations of the Cross
- Experiences personal and communal prayer, especially prayers of praise and thanksgiving

# ENGLISH LANGUAGE ARTS

## Language

- Identify relative pronouns and adverbs
- Recognize progressive verb tenses and modal auxiliaries/helping verbs
- Identify prepositional phrases
- Recognize fragments and run-ons
- Identify frequently confused words/homophones
- Demonstrate command of standard English grammar and usage when writing
- Use modal auxiliaries to convey various conditions
- Order adjectives according to conventional patterns
- Correct inappropriate fragments or run-ons in sentences
- Demonstrate command of standard English grammar and usage when speaking
- Use modal auxiliaries to convey various conditions
- Correct inappropriate fragments
- Apply correct capitalization, punctuation, and spelling in writing
- Use commas and quotation marks in dialogue
- Know coordinating conjunctions
- Know that coordinating conjunctions connect two or more independent clauses
- Use commas before a coordinating conjunction in a compound sentence
- Recall and apply spelling rules
- Identify and correct misspelled words
- Know procedures to efficiently find correct spelling
- Consult references as needed
- Recognize language conventions for writing, speaking, reading, and listening
- Recognize types of punctuation
- Recognize fundamentals of formal and informal English
- Apply language knowledge when writing, reading, or listening
- Apply knowledge of language conventions when writing, reading, or listening
- Choose words and phrases precisely
- Choose punctuation for effect
- Differentiate between contexts that call for formal English
- Use knowledge of language when speaking
- Use knowledge of language conventions when speaking
- Use words and phrases precisely when speaking
- Identify and define Greek and Latin affixes and roots
- Identify common context clues
- Use common reference materials
- Use a pronunciation guide
- Use reference materials to find pronunciation
- Use reference materials to determine the meaning of key words
- Determine the meaning of words by examining a text
- Determine the meaning of words using Greek and Latin affixes and tools
- Choose from a range of vocabulary strategies to determine a word's meaning
- Define simple similes and metaphors, common idioms, adages, and proverbs
- Recognize simple similes, metaphors, idioms, adages, and proverbs in context
- Identify synonyms and antonyms
- Explain simple similes and metaphors in context
- Explain common idioms, adages, and proverbs
- Distinguish between synonyms and antonyms
- Distinguish between similes and metaphors
- Acquire grade appropriate general academics and domain specific words
- Know words that signal precise actions, emotions, and states of being

## Grade 4

- Know words that are basic to a particular topic
- Use grade appropriate general academic and domain specific words
- Use words that signal precise actions, emotions, and states of being
- Use words that are basic to a particular topic

#### **Reading Standards: Foundational Skills**

- No standard for this grade level
- No standard for this grade level
- Know grade-level phonics and word analysis skills in decoding words
- Identify syllabication patterns and root words
- Explain meanings of prefixes and suffixes
- Apply grade-level phonics and word analysis in decoding words
- Synthesize phonics and word analysis skills to decode words
- Read multisyllabic words in and out of context
- Read words with Latin roots
- Identify and understand foundational reading skills
- Identify textual purpose and understanding
- Apply reading strategies for accuracy, rate, and expression
- Confirm or self-correct word recognition
- Confirm or self-correct word understanding
- Understand how to confirm or self-correct using context
- Determine the purpose for reading on-level text
- Apply reading strategies for accuracy, rate, and expression
- Confirm or self-correct word recognition and understanding
- Read on-level text fluently and accurately including prose and poetry
- Reread with fluency as necessary
- Read with accuracy and expression at the appropriate rate

#### **Reading Standards for Informational Text**

- Differentiate between explicit and inferred information
- Identify explicit details when explaining text
- Identify explicit details when drawing inferences
- Analyze the text using details and examples
- Summarize explicit information
- Identify the main idea and themes
- Explain how details are needed to support the main idea
- Summarize text with key supporting details
- Identify events, procedures, ideas, and concepts
- Describe how and why an individual's interaction led to events
- Evaluate why events, procedures, ideas, and concepts occurred with supporting details
- Summarize why events, procedures, ideas, and concepts occurred with supporting details
- Identify general academic words and phrases
- Identify domain specific words and phrases
- Analyze the meaning of general academic phrases
- Evaluate the meaning of domain specific phrases
- Determine the overall text structure
- Describe the overall text structure
- Define vocabulary: compare, contrast, firsthand, secondhand
- Describe events or main ideas
- Compare accounts of the event or topic
- Contrast accounts of the event or topic
- Generalize the difference in focus and information
- Define interpret
- Recognize nonfiction text features

- Read graphs, charts, diagram, timelines, etc.
- Recognize interactive Web elements
- Analyze information from charts, diagrams, graphs, timelines, animations, and interactive elements
- Analyze information visually, orally, and quantitatively
- Evaluate how information presented visually, orally, and quantitatively aids in understanding
- Recognize the differences between fact and opinion
- Define evidence and reason
- Identify the author’s reasons and evidence
- Evaluate how to use reasons to support points
- Evaluate how to use evidence to support points
- Identify information within texts on the same topic
- Generalize information from two texts on the same topic
- Recall/understand key ideas and details
- Identify/understand craft and structure
- Recognize/understand integration of knowledge
- Comprehend key ideas and details
- Comprehend craft and structure
- Comprehend integration of knowledge

### **Reading Standards for Literature**

- Identify key details and examples in a text
- Differentiate between explicit and inferred information
- Explain how details and examples support inferences
- Apply textual details to determine the theme
- Define “theme” of a story, drama or poem
- Summarize key ideas and details
- Identify the character, setting, and/or event
- Identify specific details about: characters, settings, and/or events
- Describe the characters, the setting, or an event using a character’s thoughts words or actions
- Recognize words and phrases
- Recognize words and phrases that allude to mythical characters
- Know significant Greek characters and defining characters
- Determine the meaning of words and phrases as they are used in a text
- Determine the meaning of words and phrases that allude to mythological characters
- Differentiate between poems, drama, and prose
- Refer to the structural elements of poems when writing or speaking
- Refer to the structural elements of a drama when writing or speaking
- Refer to the structural elements or prose when writing or speaking
- Define vocabulary, compare/contrast, and point of view
- Recognize first and third narrations
- Define first and third narrations
- Identify point of view (including first and third narrations)
- Compare the points of view (including first and third narrations)
- Contrast the points of view (including first and third narrations)
- Identify similarities and differences between a text and a visual or oral presentation
- Recall specific descriptions and directions in a text of a story or drama and its visual or oral presentation
- Compare specific descriptions and directions between written and oral or visual presentations of text  
(Not applicable to literature)
- Identify specific details describing themes, topics, or event patterns
- Identify similarities in themes, topics, or event patterns
- Identify differences in themes, topics, or event patterns
- Compare/contrast themes, topics, or event patterns
- Identify/understand key ideas and details
- Identify/understand craft and structure
- Comprehend key ideas and details

- Comprehend craft and structure

### Speaking and Listening Standards

- Identify key ideas from reading material
- Identify ways to listen effectively
- Describe discussion rules and roles
- Know how to answer questions and provide feedback
- Identify key ideas presented during discussion
- Relate information read to discussion topics
- Evaluate implementation of discussion rules and roles
- Formulate questions and responses based on discussion
- Explain the topic using personal ideas, opinions, and reasoning
- Think critically about ideas posed
- Justify responses with evidence to support reasoning
- Engage in discussions by sharing knowledge
- Listen actively to discussions and presentations
- Follow agreed-upon rules during discussion
- Carry out assigned roles during discussions
- Pose and respond to specific questions to clarify understanding
- Connect comments to others' remarks
- Express ideas clearly
- Paraphrase textual information presented orally from a variety of media formats
- Identify speaker's points
- Identify the reasons and evidence that support the speaker's points
- Identify a topic, text, facts, and descriptive details
- Identify and recall an experience
- Identify clearly pronounced and enunciated words
- Identify an understandable pace
- Use a logical sequence of events to tell a story, report on a topic or text, or recount an experience
- Speak clearly and understandably while reporting on a topic or telling a story
- Speak clearly and understandably in an organized manner while recounting an experience
- Speak clearly and understandably using appropriate facts
- Speak clearly and understandably using relevant, descriptive details
- Identify main ideas
- Identify theme
- Determine when to enhance main idea or theme in audio
- Add audio recordings to enhance the main idea or theme
- Add visual displays to enhance the main idea or theme
- Identify audience, task, or situation
- Identify characteristics of formal and informal speaking
- Distinguish between formal and informal speech
- Analyze situation to determine appropriate speech use
- Speak using formal English when appropriate
- Establish aligned conclusions with the sequence of events
- Write a narrative that establishes a situation, a narrator, or characters
- Write a narrative that uses dialogue, descriptions, concrete and/or sensory details to develop experiences, events, and reveal characters
- Write a narrative that uses transitional words and phrases
- Write a narrative that provides a conclusion
- Analyze the reason for writing to decide on task, purpose, or audience
- Determine suitable idea development strategies
- Determine suitable organization appropriate to the task, purpose, or audience
- Produce a writing piece with clear, cohesive idea development and organization appropriate to the determined task, purpose, and audience
- Recognize how to plan

- Recognize how to revise
- Recognize how to edit
- Recognize how to rewrite
- Recognize how to try a new approach
- Know how to edit for conventions
- Develop and strengthen writing by planning
- Develop and strengthen writing by revising
- Develop and strengthen writing by editing
- Develop and strengthen writing by rewriting
- Develop and strengthen writing by a new approach
- Use keyboarding skills
- Use word processing to produce and publish writing
- Use the Internet to communicate with others
- Evaluate the technology tools for producing and publishing writing
- Evaluate the technology for collaborating with others
- Use technology to develop, revise, edit, and publish writing
- Use technology to communicate and collaborate
- Use keyboarding skills to type a minimum of one page in a single sitting
- Conduct short research projects
- Conduct short research projects investigating different aspects of a topic
- Identify relevant information from a passage
- Recall and gather relevant information from experience
- Take notes
- Provide source list
- Gather relevant information from print and digital sources
- Categorize information
- Distinguish between relevant and irrelevant information
- Identify key ideas and details as evidence to support conclusions
- Cite textual evidence to analyze explicit text
- Draw evidence as support for research
- Analyze key ideas and details as evidence of understanding text
- Reflect on key ideas and details as evidence of understanding text
- Identify the various purposes for writing
- Identify and understand the various organizational structures as related to different genres or purposes of writing
- Determine when to write for short or extended time frames
- Determine the appropriate organizational structure for specific audiences and purposes
- Write for various purposes and to various audiences for short or extended timeframes
- Write for a range of discipline-specific tasks, purposes, and audiences

### **Writing Standards**

- Recognize facts and details
- Explain organizational structures
- Explain purpose of concluding statement
- Explain writer’s point of view
- Determine how to clearly introduce topic or text
- Formulate an opinion
- Organize by grouping ideas to support writer’s purpose
- Provide reasons supported with facts and details
- Link opinions and reasons using words and phrases
- Provide a conclusion related to the opinion
- Create an opinion piece supported with reasons and information
- Opinion piece should include clear introduction
- Opinion piece should include statement of opinion
- Opinion piece should include strong organizational structure

- Opinion piece should include support by facts and details
- Opinion piece should include links between opinion and reasons
- Opinion piece should include a concluding statement or section
- Identify a clear topic
- Identify related-information grouped in paragraphs or sections
- Identify related-information containing formatting, illustrations, and multimedia when aiding comprehension
- Identify topics developed with facts, definitions, concrete details, and quotations with other information and examples
- Identify linked ideas within categories of information
- Identify precise language and domain-specific vocabulary to inform or explain
- Identify a related concluding statement or section
- Develop a clearly introduced topic
- Develop related-information grouped in paragraphs or sections
- Develop related-information containing formatting, illustrations, and multimedia when aiding comprehension
- Develop topics with facts, definitions, concrete details, and quotations with other information and examples
- Develop linked ideas within categories of information using words and phrases
- Develop precise language and domain-specific vocabulary to inform or explain
- Develop a related concluding statement or section
- Write informative/explanatory texts that include clear topic introduction
- Write informative/explanatory texts that include related information grouped in paragraphs or sections
- Write informative/explanatory texts that include related information that contain formatting, illustrations, multimedia when aiding comprehension
- Write informative/explanatory texts that include a topic developed with facts, definitions, concrete details, and quotations with other information and examples
- Write informative/explanatory texts that include ideas linked in categories of information using words and phrases
- Write informative/explanatory texts that include precise language and domain-specific vocabulary to inform or explain
- Write informative/explanatory texts that include a concluding statement or section
- Identify the story elements, structure of a narrative and use of dialogue and description to develop experiences, events, or characters
- Recognize transitional words used to develop sequence
- Describe how writers use concrete and sensory details
- Establish a situation, narrator and/or characters
- Sequence events logically with transitional words
- Use dialogue and description to develop experiences and events
- Use concrete and/or sensory details
- Establish aligned conclusions with the sequence of events
- Write a narrative that establishes a situation, a narrator, or characters
- Write a narrative that uses dialogue, descriptions, concrete and/or sensory details to develop experiences, events, and reveal characters
- Write a narrative that uses transitional words and phrases
- Write a narrative that provides a conclusion
- Analyze the reason for writing to decide on task, purpose, or audience
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- Determine suitable organization appropriate to the task, purpose, or audience
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- Recognize how to revise
- Recognize how to edit
- Recognize how to rewrite
- Recognize how to try a new approach
- Know how to edit for conventions
- Develop and strengthen writing by planning
- Develop and strengthen writing by revising

- Develop and strengthen writing by editing
- Develop and strengthen writing by rewriting
- Develop and strengthen writing by a new approach
- Use keyboarding skills
- Use word processing to produce and publish writing
- Use the Internet to communicate with others
- Evaluate the technology tools for producing and publishing writing
- Evaluate the technology for collaborating with others
- Use technology to develop, revise, edit, and publish writing
- Use technology to communicate and collaborate
- Use keyboarding skills to type a minimum of one page in a single sitting
- Conduct short research projects
- Conduct short research projects investigating different aspects of a topic
- Identify relevant information from a passage
- Recall and gather relevant information from experience
- Take notes
- Provide source list
- Gather relevant information from print and digital sources
- Categorize information
- Distinguish between relevant and irrelevant information
- Identify key ideas and details as evidence to support conclusions
- Cite textual evidence to analyze explicit text
- Draw evidence from literary or informational text as support for research
- Analyze key ideas and details as evidence of understanding text
- Reflect on key ideas and details as evidence of understanding text
- Identify the various purposes for writing
- Identify and understand the various organizational structures as related to different genres or purposes of writing
- Determine when to write for short or extended time frames
- Determine the appropriate organizational structure for specific audiences and purposes
- Write for various purposes and to various audiences for short or extended timeframes
- Write for a range of discipline-specific tasks, purposes, and audiences

## MATH

In 4th grade, your child will gain important new skills while continuing to build on what he or she learned the previous year. One of the main areas studied in 4th grade is arithmetic and applying it to solve problems. This is an important life skill, and your child should make significant strides in this area during the year. Your child will also build knowledge and skills with fractions to prepare for mastering this topic in 5th and 6th grades. These skills will help ensure your child is ready for algebra and advanced math.

### HELP YOUR CHILD LEARN AT HOME

Look for “word problems” in real life. Some 4<sup>th</sup> grade examples might include:

- Ask your child to compare numbers using phrases like “times as much.” For example, if the family cat weighs 8 lbs. and the family dog weighs 56 lbs., how many times as much does the dog weigh?
- Ask your child to help you compare fractional amounts – for example, if one recipe calls for  $\frac{2}{3}$  of a cup of oil, but another recipe calls for  $\frac{3}{4}$  of a cup of oil, which recipe calls for more oil? (In 5<sup>th</sup> grade, your child will learn ways to determine just how much more oil.)

## GEOMETRY

- Analyze two-dimensional figures to identify points, lines, line segments, rays, angles, (right, acute, obtuse), and perpendicular and parallel lines
- Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines
- Identify parallel or perpendicular lines in two-dimensional figures
- Recognize acute, obtuse, and right angles
- Identify right triangles
- Classify two-dimensional figures based on parallel or perpendicular lines and size of angles
- Classify triangles as right triangles or not right
- Recognize lines of symmetry for a two-dimensional figure
- Recognize a line of symmetry as a line across a figure that when folded along creates matching parts
- Identify line-symmetric figures
- Draw lines of symmetry for two-dimensional figures

## MEASUREMENT AND DATA

- Know relative size of measurement units (km, m; kg, g; lb, oz; L, mL; hrs, min, sec)
- Compare the different units within the same system of measurement
- Convert larger units of measurement within the same system to smaller units and record conversions in a 2-column table
- Express measurements given in a larger unit in terms of a smaller unit
- Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale
- Add, subtract multiply, and divide fractions and decimals
- Solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money
- Solve word problems involving measurement that include simple fractions or decimals
- Solve word problems that require expressing measurements given in a larger unit in terms of a smaller unit
- Know that the formula for the perimeter of a rectangle is  $2L + 2W$  or  $L + L + W + W$
- Know that the formula for the area of a rectangle is  $L \times W$
- Apply the formula for perimeter of a rectangle to solve real world and mathematical problems
- Apply the formula for area of a rectangle to solve real world and mathematical problems
- Solve area and perimeter problems in which there is an unknown factor (n)
- Analyze and interpret a line plot to solve problems involving addition and subtraction of fractions
- Add and subtract fractions
- Define angle
- Recognize a circle as a geometric figure that has 360 degrees
- Recognize and identify an angle as a geometric shape formed from 2 rays with a common endpoint
- Explain the angle measurement in terms of degrees
- Recognize that an angle is a fraction of a 360 degree circle
- Compare angles to circles with the angles point at the center of the circle to determine the measure of the angle
- Calculate angle measurement using the 360 degrees of a circle
- Recognize that angles are measured in degrees (o)
- Read a protractor
- Determine which scale on the protractor to use, based on the direction the angle is open
- Determine the kind of angle based on the specified measure to decide reasonableness of the sketch
- Measure angles in whole number degrees using a protractor
- Sketch angles of specified measure
- Recognize that an angle can be divided into smaller angles
- Solve addition and subtraction equations to find unknown angle measurements on a diagram

- Find an angle measure by adding the measurements of the smaller angles that make up the larger angle
- Find an angle measure by subtracting the measurements of the smaller angle from the larger angle

## NUMBER AND OPERATIONS IN BASE TEN

- Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right
- Compare two multi-digit numbers based on meanings of the digits in each place, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons
- Read and write multi-digit whole numbers using base ten numerals, number names, and expanded form
- Round multi-digit whole numbers to any place using place value
- Fluently add and subtract multi-digit whole numbers less than or equal to 1,000,000 using the standard algorithm
- Multiply a whole number of up to four digits by a one-digit whole number
- Multiply two two-digit numbers
- Use strategies based on place value and the properties of operations to multiply whole numbers
- Illustrate and explain calculations by using written equations, rectangular arrays, and/or area models
- Find whole number quotients and remainders with up to four-digit dividends and one-digit divisors
- Use the strategies based on place value, the properties of operations, and/or the relationship between multiplication and division
- Illustrate and explain the calculation by using written equations, rectangular arrays, and/or area models

## NUMBER AND OPERATIONS – FRACTIONS

- Recognize and identify equivalent fractions with unlike denominators
- Explain why  $a/b$  is equal to  $(n \times a) / (n \times b)$  by using fraction models with attention to how the number and size of the parts differ even though the two fractions themselves are the same size
- Use visual fraction models to show why fractions are equivalent
- Generate equivalent fractions using visual fraction models and explain why they can be called “equivalent”
- Recognize fractions as being greater than, less than, or equal to other fractions
- Record comparison results with symbols:  $<$ ,  $>$ ,  $=$
- Use benchmark fractions such as  $\frac{1}{2}$  for comparison purposes
- Make comparisons based on parts of the same whole
- Compare two fractions with different numerators and denominators
- Justify the results of a comparison of two fractions by using a visual fraction model
- Understand accumulating unit fractions ( $1/b$ ) results in a fraction ( $a/b$ ), where  $a$  is greater than 1
- Recognize multiple representations of one whole using fractions with the same denominator
- Replace mixed numbers with equivalent fractions, using visual fraction models
- Replace improper fractions with a mixed number, using visual fraction models
- Using fraction models, reason that addition of fractions is joining parts that are referring to the same whole
- Using fraction models, reason that subtraction of fractions is separating parts that are referring to the same whole
- Using visual fraction models, decompose a fraction into the sum of fractions with the same denominator in more than one way
- Record decompositions of fractions as an equation and explain the equation using visual fraction models
- Add and subtract fractions with like denominators
- Add and subtract mixed numbers with like denominators by using properties of operations and the relationship between addition and subtraction
- Add and subtract mixed numbers by replacing each mixed number with an equivalent fraction
- Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, by using visual fraction models and equations to represent the problem
- Represent a fraction  $a/b$  as a multiple of  $1/b$  (unit fractions)

- Multiply a fraction by a whole number
- Apply multiplication of whole numbers to multiplication of a fraction by a whole number using visual fraction models
- Explain that a multiple of  $a/b$  is a multiple of  $1/b$  (unit fraction) using a visual fraction model
- Multiply a fraction by a whole number by using the idea that  $a/b$  is a multiple of  $1/b$
- Use fraction models and equations to represent the problem
- Solve word problems involving multiplication of a fraction by a whole number
- Rename and recognize a fraction with a denominator of 10 as a fraction with a denominator of 100
- Recognize that two fractions with unlike denominators can be equivalent
- Use knowledge of renaming tenths to hundredths to add two fractions with denominators 10 and 100
- Explain the values of digits in the decimal places
- Read and write decimals through hundredths
- Rename fractions with 10 and 100 in the denominator as decimals
- Recognize multiple representations of fractions with denominators 10 and 100
- Represent fractions with denominators 10 or 100 with multiple representations and decimal notation
- Explain how decimals and fractions relate
- Recognize that comparisons are valid only when the two decimals refer to the same whole
- Compare two decimals to hundredths by reasoning about their size
- Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$
- Justify the conclusions using visual models and other methods

## **OPERATIONS AND ALGEBRAIC THINKING**

- Know multiplication strategies
- Interpret a multiplication equation as a comparison
- Represent verbal statements of multiplicative comparisons as multiplication equations
- Describe multiplicative comparison
- Describe additive comparison
- Determine and use a variety of representations to model a problem involving multiplicative comparison
- Distinguish between multiplicative comparison and additive comparison (repeated addition)
- Multiply or divide to solve word problems
- Determine appropriate operations and solve word problems involving multiplicative comparison
- Divide whole numbers including division with remainders
- Represent multi-step word problems using equations with a letter standing for the unknown quantity
- Interpret multi-step word problems (including problems in which remainders must be interpreted) and determine the appropriate operations to solve
- Assess the reasonableness of an answer in solving a multi-step word problem using mental math and estimates strategies (including rounding)
- Define prime and composite numbers
- Know strategies to determine whether a whole number is prime or composite
- Identify all factor pairs for any given number 1-100
- Recognize that a whole number is a multiple of each of its factors
- Determine if a given whole number (1-100) is a multiple of a given one-digit number
- Evaluate if a given whole number (1-100) is a prime or composite
- Identify a number or shape pattern
- Analyze a pattern to determine features not apparent in the rule
- Generate a number or shape pattern that follows a given rule

# SOCIAL STUDIES

## Grade 4

### ECONOMICS

#### Production/Consumption/Distribution:

- Identify the connection of natural resources to products of WI and regions of the U.S.
- Describe the importance of industries to Wisconsin in the past and present (i.e., agriculture, lumber, fur trade, and lead mining)
- Explain the advantages and disadvantages of various types of distribution of goods

#### Exchange:

- Examine various means of exchange (i.e., trade and barter for goods)

### HISTORY

#### Time:

- Identify the sequence of events leading to the exploration and settlement of Wisconsin.
- Compare Wisconsin communities in the past and present.

#### People:

- Explore the significance of explorers, missionaries, and fur traders to Wisconsin (See Appendix)
- Explore the significance of immigrants to Wisconsin
- Explore the significance of American Indians to Wisconsin

#### Events:

- Describe the conflicts that affected the settlement of Wisconsin
- Summarize current events in the United States and Wisconsin

### GEOGRAPHY

#### Location:

- Locate geographic landforms on Wisconsin and states maps
- Identify relative and absolute location of Wisconsin
- Locate and identify states and physical features in the U.S.

#### Map Skills:

- Apply cardinal and intermediate directions
- Identify latitude and longitude
- Identify different types of maps
- Map regions of U.S.
- Map Wisconsin's physical features and major cities

#### Regions:

- Identify regions of Wisconsin and the U.S.

#### Human Environment:

- Identify renewable and nonrenewable resources

#### Place:

- Differentiate between weather and climate
- Define the Ice Age and its effects on Wisconsin regions
- Identify the cultures within Wisconsin

### POLITICAL SCIENCE

#### Citizenship:

- Identify symbols of Wisconsin

#### Government:

- Describe how Wisconsin became a state
- Describe the changes made by the Progressive Party in Wisconsin
- Identify the three levels and branches of government and explain their duties

#### Laws:

- Explain how a bill becomes a law in Wisconsin

### BEHAVIORAL SCIENCE

#### Individual:

- Describe how individuals contribute to Wisconsin's identity

#### Institutions:

- Explain the contributions of family, school, church, and government to Wisconsin

#### Society:

- Explain the contributions of Wisconsin to the nation
- Explain the impact of world events on Wisconsin
- Describe the different cultures that have shaped Wisconsin in the past and present
- Explain the concept of multiculturalism

### CATHOLIC SOCIAL TEACHINGS

#### Life and Dignity of the Human Person:

- Begins to develop skills for conflict resolution
- Identifies ways to prevent prejudice/discrimination at school and play
- Recognizes and respects the qualities of a dignified life

#### The Call to Family, Community, and Participation:

- Recognizes and discusses the value of the human family
- Identifies Jesus as a member of a community in addition to being part of a family
- Applies the teachings of Jesus to Community
- Is involved in service projects and identifies these with Christian community

#### The Rights and Responsibilities of the Human Person:

- Applies basic Christian attitudes and skills in solving arguments and conflicts
- Articulates basic human rights and responsibilities
- Prays the Prayer of St. Francis in order to be sustained in fighting injustice

#### Option for the Poor and the Vulnerable:

- Understands Jesus' teachings about serving others
- Practices behaviors that help others
- Uses special individual talents to assist those in need of help
- Can tell stories about what poor children and children who are not poor have in common

#### Dignity of Work and the Rights of Workers:

- Shows respect for the value of all classmates work
- Can discuss the many different types of work roles and professions with respect
- Gives examples of how different kinds of work call forth different talents
- Demonstrates how all types of work contribute to the good of the whole

#### Solidarity of the Human Family:

- Identifies oneself as belonging to a family of global people where there are many differences
- Recognizes the values of our global neighborhood and cultures
- Recognizes and respects the uniqueness of the individual cultures throughout the world
- Identifies racial prejudice and demonstrates an acceptance of people from a race other than one's own

#### Care for God's Creation

- Explains how the environment is God's creation and ours to respect
- Demonstrates that we all have a role to play in preserving the environment
- Gives examples for daily life of conserving the environment

# SCIENCE

Dear Parents:

A strong foundation in science, technology, engineering, and mathematics is essential for preparing our students to be well informed citizens as well as prepared for college and the work force. Our traditional science programs have focused on content, facts, and vocabulary, but have lacked the ability for students to engage in the actual application of scientific concepts. The Next Generation Science Standards (NGSS) have refocused K-12 science education to focus on the big ideas through an emphasis on firsthand experiences such as investigation, design, and modeling, to help make more meaningful connections to the concepts that will stay with our children for a lifetime.

The NGSS promote a new way of teaching and learning that allows students to experience science in a meaningful way. This is accomplished by integrating three dimensions of learning as well as technology and engineering principles:

- **Core Disciplinary Concepts:** This is the content that is being covered (ex. Biology).
- **Science and Engineering Practices:** This focuses on the process of how science is conducted in the real world, such as through planning and carrying out investigations.
- **Cross Cutting Concepts:** These are science ideas, like *cause and effect*, that permeate all the sciences.

Your child(ren) will experience instruction in the classroom that emphasizes scientific exploration and experimentation. Children will be engaged in questioning, exploring and discussing possible solutions, investigating science concepts, using argumentation, and being fully active in the learning process. This approach mirrors real-world science practices and engages students in a more meaningful way. Not only will our students be immersed in investigative experiences, but they will also be developing important critical-thinking skills that will cultivate the great thinkers and innovators of tomorrow.

## Physical Science:

- Investigate the relationship between speed and energy through experimentation.
- Demonstrate that an object with more speed has greater energy than an object moving at a slower speed.
- Plan and carry out investigations to demonstrate how energy can be transferred from place to place.
- Investigate how sound, light, heat, and electricity are transferred.
- Predict the change in energy when two objects collide and generate questions about how energy transfers when objects collide.
- Identify the cause and effect relationship between the strength of a force and an object.
- Identify different types of energy.
- Recognize that energy can be converted from one form to another.
- Design a device that converts energy from one form to another.
- Recognize the relationship between energy, frequency, and wavelength.
- Model a high energy wave and a low energy wave.
- Identify the difference between a high energy and low energy wave by applying the terms amplitude and wavelength.
- Distinguish that light travels in straight paths.
- Model that light needs to be reflected from an object to be seen.
- Create a pattern to transfer information.
- Compare multiple solutions to transferring information.

# SCIENCE

**Life Science:**

- Define and identify macroscopic internal and external structures of plants and animals.
- Explain the function(s) of a particular plant or animal structure.
- Identify the parts of a flower and their role in growth/survival/reproduction.
- Construct an argument for the importance of an organism's structures.
- Use a model to show how animals receive, process, and respond to information.
- Describe an organism's response to stimuli.
- Recognize animals obtain information in different ways.

**Earth Science:**

- Identify the three types of rocks.
- Explain how rocks can change over time as a part of the rock cycle.
- Provide evidence about how landscape has changed over time.
- Plan and investigate the effects of weathering and erosion.
- Define erosion and the moving of rocks and soil.
- Explain that features of the earth's surface are constantly changing by a combination of slow and rapid processes.
- Analyze and interpret data in order to explain that the earth's surface is always changing.
- Classify renewable and nonrenewable resources.
- Provide evidence of how the use of natural resources affect the environment.
- Communicate the harmful effects of obtaining and using fossil fuels.
- Design solutions to reduce the impacts of Earth's processes on humans.
- Test solution(s) with a range of likely conditions.
- Compare how well the solution(s) performed.

**Science and Engineering Practices:**

- Ask questions and define a problem.
- Develop explanations and design solutions.
- Obtain, evaluate, and communicate information.
- Plan and carry out Investigations.
- Analyze and interpret data.
- Engage in an argument based on evidence.
- Construct an explanation and design a solution.
- Develop and use models.

**Catholic Social Teachings:**

- Work cooperatively and respect my classmates' ideas, roles, and abilities.
- Identify the relationships between the roles of science, technology, and Catholic ethics in a global community.
- Describe/compare life from the fossil record with modern life forms and discuss Biblical implications.
- Demonstrate stewardship inspired by Catholic values in the care of local and global environments.

