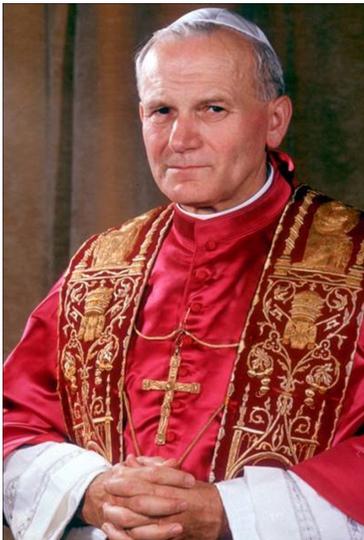




# Fifth Grade Curriculum Guide

Patron Saint: Saint John Paul II



# Welcome To Fifth Grade!

Dear Parents,

We are pleased to provide you with the curriculum standards that your child will learn this year in fifth grade. These standards spell out exactly what skills and knowledge we expect your child to be able to do and understand by the end of this year. Lumen Christi follows rigorous content standards aligned with national guidelines and Archdiocesan standards. But even the most rigorous standards cannot make our students successful without the support of parents. Studies show that the family is critical to a child's success in school. Understanding what is expected of your fifth grade student enables you, the parent, to assess progress. The more you know about the academic expectations for children this age, the more influence you will have in educational progress. This booklet is designed to inform you of Lumen Christi's expectations for students in the five major curriculum areas: Religion, English Language Arts, Math, Social Studies, and Science. These expectations are aligned with the fifth grade curriculum that is used by the classroom teacher for daily instruction.

As a school dedicated to excellence we are continually reviewing, developing, and improving our curricular choices. Therefore, we will occasionally and purposefully make changes to our scope and sequence as we continue to grow and refine our practice of education.

The physiological changes that 10- and 11-year-olds typically undergo create many challenges. Not only are their bodies changing, but the way they view the world is also different. They may be more emotionally sensitive or feel awkward in response to the physical changes in their bodies. Children in fifth grade may also seem more self-absorbed, requiring more external structure than before. During this transition in your child's life, he or she may need more emotional and structural support to stay on track for academic success. This is why a strong home-school connection is vital! We are confident that your child is going to have a successful, fulfilling, and memorable year!

Blessings!

# RELIGION

## **Credal Church:**

- Explains how environment is God's creation and ours to respect
- Knows that God is the Creator, all-powerful, who made the world good
- Knows that the human race has a common origin reflected in the Adam and Eve story
- Knows and expresses belief that Jesus is the Son of God and the Word Made Flesh
- Understands Jesus as Savior and that "Jesus" means "God Saves"
- Understands that "Kingdom/Reign of God" is reflected in the good that happens in the world
- Knows and applies the concept of sacramentality: that Christ's life-death-resurrection is celebrated at liturgy
- Identifies ways that the Church carries on the mission of Jesus under the leadership of popes and the bishops
- Explains the communion of saints
- Identifies past and present Christian role models, e.g., patron saints
- Knows that Mary is the Mother of God as she is the mother of Jesus the Christ
- Understands that Christ's death and resurrection were part of God's plan
- Knows that the Assumption celebrates Mary taken to heaven, body and soul
- Knows that after death comes judgment which leads to heaven, hell or purgatory
  - Knows an overview of the Bible, understanding that the Old Testament is fulfilled in the New Testament
  - Is able to locate and read from the Bible the stories for this age group as listed, e.g., Genesis, chapters 1-3, two versions of the creation story
  - Understands that there is one God (Deuteronomy 6:4-5)
  - Knows that the Holy Spirit works in the Church, in the Scriptures and in the lives of people as at Pentecost (Acts 2:1-4, 17)
- Knows about human sexual development and its sacredness
- Knows and lives the belief that all life is sacred

## **Liturgy/ Sacrament:**

- Knows the names, meanings, signs and symbols of each of the seven sacraments
- Celebrates the sacrament of Reconciliation
- Participates in the preparation of Eucharistic liturgies with class or group
- Recognizes the liturgical calendar and can explain the seasons of the Church year, their meanings and color
- Knows that the baptized share in the priesthood of Christ
- Understands the Sacrament of Holy Orders as the way Christ continues to preach and sanctify
  - Is able to locate, read from the Bible and understands each story listed below as it relates to the Scriptures
  - Experiences water, bread, oil and light as sacramental symbols (John 4:4-42)
  - Recognizes Christ's presence at Mass: in the assembly, the priest-president, the proclamation of the Word and especially in the Bread and Wine (John 6:1-58)
  - Recognizes the meaning and celebration of the Sacred Triduum and Easter as our central feast Anointing at Bethany (Mark 14:3-9)
  - Knows that Baptism forgives original and personal sin - Nicodemus (John 3:1-21)
  - Knows Confirmation and Baptism relate to the mission of Jesus (Mark 1:9-11, Matthew 3:13-17); and service (Mark 10:44)
  - Understands that in the Sacrament of Matrimony, the family is seen as the "domestic Church" (John 2:1-11)
  - Understands the healing power of Christ in the Sacrament of the Sick (James 5:14-15)

## **Moral Life:**

- Understands that the presence of sin or evil in the world is "original sin" into which we are all born
- Recognizes attitudes and actions that are sinful or selfish
- Acts out of the belief that mercy and justice are essential to Christian living
- Follows Catholic Social Justice teaching by reaching out to others through positive words and actions
- Distinguishes between mortal (serious) and venial sin
- Has a working knowledge of the Beatitudes and Commandments and can apply them to daily life
- Understands the meaning of the four cardinal virtues: prudence, justice, temperance and fortitude
- Practices forgiveness and being forgiven and knows forgiveness stories in Bible, e.g., (Matthew 18:21-22)
- Begins to be aware of the need for ongoing conversion (1Corinthians 13:4-8)
- Identifies private and special body parts and touches which can make one feel uncomfortable
- Can define bullying and harassment and recognizes when it occurs Knows how to use conflict management skills

## **Christian Prayer**

- Participates in prayer services and other devotions, e.g., rosary, stations of the cross
- Prays the Our Father, Apostles Creed, Nicene Creed
- Knows how to pray the rosary
- Recognizes that Jesus prayed at decisive times in his life
- Prays to the saints in union with the Father, Son and Holy Spirit
- Prays in harmony with the seasons of the Church Year
- Understands the difference between the Mass, other communal prayer and private prayer
- Uses Scripture as a source of prayer and reflection

# ENGLISH LANGUAGE ARTS

## Reading: Literature

### **Key Ideas and Details**

- Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
- Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

### **Craft and Structure**

- Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
- Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
- Describe how a narrator's or speaker's point of view influences how events are described.

### **Integration of Knowledge and Ideas**

- Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
- Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

### **Range of Reading and Text Complexity**

- By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.

## Reading: Informational Text

### **Key Ideas and Details**

- Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
- Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

### **Craft and Structure**

- Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
- Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
- Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

### **Integration of Knowledge and Ideas**

- Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a

question quickly or to solve a problem efficiently.

- Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
- Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

### **Range of Reading and Text Complexity**

- By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.

## **Reading: Foundational Skills**

### **Phonics and Word Recognition**

- Know and apply grade-level phonics and word analysis skills in decoding words.
  - Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

### **Fluency**

- Read with sufficient accuracy and fluency to support comprehension.
  - Read on-level text with purpose and understanding.
  - Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
  - Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

## **Writing**

### **Text Type and Purpose**

- Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
  - Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
  - Provide logically ordered reasons that are supported by facts and details.
  - Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).
  - Provide a concluding statement or section related to the opinion presented.
- Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
  - Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
  - Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
  - Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).
  - Use precise language and domain-specific vocabulary to inform about or explain the topic.
  - Provide a concluding statement or section related to the information or explanation presented.
- Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
  - Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
  - Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
  - Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
  - Use concrete words and phrases and sensory details to convey experiences and events precisely.

- Provide a conclusion that follows from the narrated experiences or events.

### **Production and Distribution of Writing**

- Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
- With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

### **Research to Build and Present Knowledge**

- Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
- Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
- Draw evidence from literary or informational texts to support analysis, reflection, and research.
  - Apply grade 5 Reading standards to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact”).
  - Apply grade 5 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point\*s+”).

### **Range of Writing**

- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

## **Speaking and Listening**

### **Comprehension and Collaboration**

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
  - Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
  - Follow agreed-upon rules for discussions and carry out assigned roles.
  - Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
  - Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
- Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

### **Presentation of Knowledge and Ideas**

- Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
- Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.

## Language

### **Conventions of Standard English**

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
  - Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.
  - Form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses.
  - Use verb tense to convey various times, sequences, states, and conditions.
  - Recognize and correct inappropriate shifts in verb tense.
  - Use correlative conjunctions (e.g., either/or, neither/nor).
- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - Use punctuation to separate items in a series.
  - Use a comma to separate an introductory element from the rest of the sentence.
  - Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?).
  - Use underlining, quotation marks, or italics to indicate titles of works.
  - Spell grade-appropriate words correctly, consulting references as needed.

### **Knowledge of English**

- Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  - Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
  - Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.

### **Vocabulary Acquisition and Use**

- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.
  - Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
  - Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis).
  - Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of keywords and phrases.
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
  - Interpret figurative language, including similes and metaphors, in context.
  - Recognize and explain the meaning of common idioms, adages, and proverbs.
  - Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).

# MATH

## Operations and Algebraic Thinking

### **Write and interpret numerical expressions**

- Use order of operations including parenthesis, brackets, or braces
- Interpret numerical expressions without evaluating them
- Evaluate expressions using the order of operations (including using parentheses, brackets, or braces)
- Write numerical expressions for given numbers with operation words
- Write operation words to describe a given numerical expression

### **Analyze patterns and relationships**

- Generate two numerical patterns using two given rules
- Form ordered pairs consisting of corresponding terms for the two patterns
- Analyze and explain the relationships between corresponding terms in the two numerical patterns
- Graph generated ordered pairs on a coordinate plane

## Number and Operations in Base Ten

### **Understand the place value system**

- Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and  $\frac{1}{10}$  of what it represents in the place to its left
- Translate between powers of 10 written as 10 raised to a whole number exponents, in expanded form and standard notation
- Explain the patterns in the number of zeros of the product when multiplying a number by powers of 10
- Explain the relationship of the placement of the decimal point when a decimal is multiplied or divided by a power of 10
- Represent powers of 10 using whole number exponents
- Read and write decimals to thousandths using base-ten numerals, number names, and expanded form
- Use  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons between decimals
- Use knowledge of base ten and place value to round decimals to any place
- Compare two decimals to the thousandths, based on the place value of each digit
- Use knowledge of base ten and place value to round decimals to any place

### **Perform operations with multi-digit whole numbers and with decimals to hundredths**

- Fluently multiply multi-digit whole numbers using the standard algorithm
- Find whole number quotients of whole numbers with up to four digit dividends and two digit divisors
- Use strategies based on place value, the properties of operations, and/or relationships between multiplication and division to solve division problems.
- Illustrate and explain division calculations by using equations, rectangular arrays, and/or area models.
- Add, subtract, multiply, and divide decimals to hundredths using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction
- Relate the strategy to a written method and explain the reasoning used to solve decimal operation calculations

## Number and Operations - Fractions

### **Use equivalent fractions as a strategy to add and subtract fractions**

- Generate equivalent fractions to find the like denominator
- Generate equivalent fractions to find like denominators
- Solve addition and subtraction problems involving fractions (including mixed numbers) with like and unlike denominators using an equivalent fraction strategy
- Evaluate the reasonableness of an answer, using fractional number sense, by comparing it to a benchmark fraction
- Solve word problems involving addition and subtraction of fractions with unlike denominators referring to the same whole

### **Apply and extend previous understandings of multiplication and division to multiply and divide fractions**

- Interpret a fraction as division of the numerator by the denominator
- Multiply fractions by whole numbers
- Know that scaling (resizing) involves multiplication
- Interpret a remainder as a fractional part of the problem
- Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers
- Multiply fractions by fractions
- Interpret the product of a fraction times a whole number as total number of parts of the whole
- Determine the sequence of operations that results in the total number of parts of the whole
- Interpret the product of a fraction times a fraction as the total number of parts of the whole
- Represent fraction products as rectangular areas
- Justify multiplying fractional side lengths to find the area is the same as tiling a rectangle with unit squares of the appropriate unit fraction side lengths
- Find area of a rectangle with fractional side lengths using different strategies
- Model the area of rectangles with fractional side lengths with unit squares to show the area of rectangles
- Know that multiplying whole numbers and fractions results in products greater than or less than one depending upon the factors
- Compare the size of a product to the size of one factor on the basis of the size of the other factor without performing the indicated multiplication
- Draw a conclusion multiplying that a fraction greater than one will result in a product greater than the given number
- Draw a conclusion that when you multiply a fraction by one, the resulting fraction is equivalent • Draw a conclusion that when you multiply a fraction by a fraction, the product will be smaller than the given number
- Represent word problems involving multiplication of fractions and mixed numbers • Solve real world problems involving multiplication of fractions and mixed numbers
- Know the relationship between multiplication and division
- Interpret division of a unit fraction by a whole number and justify your answer using the relationship between multiplication and division, by creating story problems, using visual models, and relationship to multiplications, etc.
- Interpret division of a whole number by a unit fraction and justify your answer using the relationship between multiplication and division, and by representing the quotient with a visual fraction model
- Solve real world problems involving division of unit fractions by whole numbers other than 0 and division of whole numbers by unit fractions using strategies such as visual fractions models and equations

## **Measurement and Data**

### **Use equivalent fractions as a strategy to add and subtract fractions**

- Recognize units of measurement within the same system
- Divide and multiply to change units
- Convert units of measurement within the same system
- Solve multi-step, real world problems that involve converting units

### **Represent and interpret data**

- Identify benchmark fractions
- Make a line plot to display a data set of measurements in fractions of a unit
- Solve problems involving information presented in line plots which use fractions of a unit by adding, subtracting, multiplying, and dividing fractions

### **Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition**

- Recognize that volume is the measurement of the space inside a solid three
- Recognize a unit cube has 1 cubic unit of volume and is used to measure volume of three dimensional shapes
- Recognize any solid figure packed without gaps or overlaps and filled with  $n$  unit cubes indicates the total cubic units or volume
- Measure volume by counting unit cubes, cubic cm, cubic in, cubic ft, and improvised units FS
- Identify a right rectangular prism • Multiply the three dimensions in any order to calculate volume (Commutative and Associative properties)
- Know the “B” is the area of the base • Recognize volume as additive • Develop volume formula for a rectangular prism by comparing volume when filled with cubes to volume by multiplying the height by the area of the base, or when multiplying the edge lengths (  $L \times W \times H$  )
- Apply the following formulas to right rectangular prisms having whole number edge lengths in the context of real

world mathematical problems:  $\text{Volume} = \text{length} \times \text{width} \times \text{height}$   $\text{Volume} = \text{area of base} \times \text{height}$

## **Geometry**

### **Graph points on the coordinate plane to solve real-world and mathematical problems**

- Define the coordinate system
- Graph points in the first quadrant
- Identify the x and y axis
- Locate the origin on the coordinate system
- Identify coordinates of a point on a coordinate system
- Recognize and describe the connection between the ordered pair and the x and y axis from the origin
- Interpret coordinate values of points in real world context and mathematical problems
- Represent real world and mathematical problems by graphing points in the first quadrant

### **Classify two-dimensional figures into categories based on their properties**

- Recognize that some two-dimensional shapes can be classified into more than one category
- Recognize the hierarchy of two-dimensional shapes based on their attributes based on their attributes
- Recognize if a two-dimensional shape is classified into a category, that it belongs to all subcategories of that category
- Analyze properties of two-dimensional figures in order to place into a hierarchy
- Classify two-dimensional figures into categories and/or subcategories based on their attributes

# SOCIAL STUDIES

## Economics

### **Production/Consumption/Distribution:**

- Explain how the United States and its neighbors are economically interdependent
- Examine the impact of the Industrial Revolution on the United States
- Identify the impact of distribution of goods on the growth of cities

### **Exchange:**

- Explain the consequences of economic growth and depression

## Geography

### **Location:**

- Identify the fifty states and their capitals

### **Map Skills:**

- Map the fifty states and their capitals
- Measuring on a map
- Apply latitude, longitude, and scale on a map
- Use different types of maps

### **Regions:**

- Recognize countries of the Americas Place:
- Explain how climate affects people
- Identify different cultures within the United States

### **Movement:**

- Identify the connection between communication and transportation

## History

### **Time:**

- Describe sequence of events of the exploration & settlement of the U.S.
- Use historical tools to draw conclusions about the past
- Compare U.S. communities past and present

### **People:**

- Identify explorers to the Americas
- Identify various groups who colonized America & describe the growth of the U.S.
- Describe the diverse American Indian cultures found in the Americas

### **Events:**

- Describe the wars that affected the growth & expansion of the U.S.
- Describe the cause & effects of U.S. involvement in wars
- Analyze current events in the U.S.

## Political Science

### **Citizenship:**

- Demonstrate the rights and responsibilities of citizens
- Recite and understand the National Anthem

### **Laws**

- Explain how a bill becomes a law at the federal level
- Understand the rights and responsibilities in the Bill of Rights

**Government:**

- Understand the formation of political parties
- Describe a democratic system of government
- Define a constitution and describe its contents

## Behavioral Science

**Individual:**

- Describe how individuals contribute to the identity of the United States

**Institution:**

- Explain how family, school, church, and government contribute to U.S

**Society:**

- Explain how U.S. contributes to the world
- Explain the impact of world events on the United States
- Identify contributions of cultural groups in the U.S.

## 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

## Earth Science

### **Weather:**

- Observe that weather instruments measure temperature, air pressure, wind direction and speed, and precipitation
- Use various weather instruments to collect data and make predictions
- Illustrate that weather maps use symbols to display weather data

### **Space:**

- Understand objects in the solar system are in constant motion caused by natural forces which impact many changes we see in our world
- Identify constellations and their position in relation to the Earth
- Know that planets look like stars, but over time they appear to wander among the constellations

### **Earth's Structure/Composition:**

- Explain how metamorphic rocks are formed in the Earth's crust by pressure, heat, and water
- Investigate how sedimentary rocks form when sediment settles and becomes compacted
- Recognize how igneous rocks are created when molten rock cools and hardens

## Physical Science

### **Sound and Light:**

- Investigate that light travels in straight paths
- Discover that white light is composed of colors that can be revealed and separated using a prism
- Identify reflection, refraction, and absorption as properties of light
- Observe that concave and convex lenses can change the path of light
- Investigate how light is a form of energy
- Explain how people use light in many ways
- Explain how sound is caused by vibrations
- Discover that pitch is affected by frequency
- Infer that sound travels in waves

### **Matter:**

- Investigate substances that dissolve to form solutions

### **Forces/Motion and Energy:**

- Investigate how changing the weight, size, shape, or material of an object will change the way it moves through the air
- Demonstrate the motion of an object can be described by tracing and measuring its position over time
- Explain that when a force is applied to an object, the object starts moving, stops moving, speeds up, slows down, or goes in a different direction
- Identify the relationship between the strength of a force and its effect on an object
- Identify conductors and their effect on the movement of heat
- Observe that objects that travel through the air are acted upon by the forces of thrust, lift, drag, and gravity
- Investigate that motors can be powered by electrical energy

### **Electricity/Magnetism:**

- Investigate magnetic attraction to steel and iron materials
- Know that static electricity produces positive and negative charges: like charges repel, opposites attract

## Life Science

### **Animals:**

- Behavior
  - Know that an animal's behavior is influenced by internal cues and external cues

### **Plants:**

- Characteristics

- Recognize how plants capture energy from the sun to produce food through photosynthesis
- Adaptations
  - Know that plant behavior is influenced by internal cues and external cues
  - Know that plants have senses that help them to detect these cues

**Environment:**

- Adaptations
  - Describe how organisms' adaptive characteristics affect their survival
- Interaction of Living Things
  - Know that all organisms cause changes in their environments and these changes can be beneficial or detrimental
  - Know that an organism's patterns of behavior are related to the nature of that organism's environment
  - Explain that energy is transferred through food chains
  - State that a food web is a number of connected food chains

**Human Body:**

- Explain that the skeletal, muscular, circulatory, and respiratory systems interact with one another and perform specific functions

Standards and information obtained from:

- Archdiocese of Milwaukee Office of Schools
- National Benchmarks and Standards for College and Career Readiness
- Department of Defence Education Activity