

## KEY LEARNINGS: FIFTH GRADE

2004-2005

### BIBLE

**Fruit of the Spirit:** Understand that God's people will demonstrate love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, and self-control

- Understand how Old Testament, New Testament, historical, and contemporary individuals have demonstrated the "Fruit of the Spirit" in their personal lives
- Know that God's character of love is revealed by the actions of His people
- Recognize God's faithfulness and His mercy toward His children
- Understand how to develop peace in the school, home, community, and country
- Understand how moderation in diet, rest, and exercise affects an individual's relationship with God
- Recognize that the Christian life can be an abundantly, joyful life
- Know that the most important thing a person can do is to develop relationships—foremost with God, but also with family, friends, and acquaintances
- Understand the importance of daily commitment to God through prayer and Bible study

### FINE ARTS

**Art** - Consult the *NAD Fine Arts Curriculum Guide* for suggested activities to meet these objectives.

- Select media, techniques and processes; analyze what makes them effective or not effective in communicating ideas; and reflect upon the effectiveness of their choices
- Employ organizational structures and analyze their effectiveness in the communication of ideas
- Use subjects, themes and symbols that demonstrate knowledge of contexts, values and aesthetics that communicate intended meaning in artwork
- Describe and place a variety of art objects in historical and cultural context
- Analyze, describe and demonstrate how factors of time and place influence visual characteristics that give meaning and value to a work of art
- Describe and compare a variety of individual responses to their own artworks and to artworks from various eras and cultures
- Describe ways in which the principles and subject matter of other disciplines taught in the school are interrelated with the visual arts

### Music

- Know names of lines and spaces of bass clef
- Identify and write symbols for sharp, flat and natural
- Sight-read a musical phrase
- Use *D.C. al fine*
- Know symbols and meanings for ritardando, accelerando, crescendo, decrescendo and diminuendo
- Listen to music of the baroque period
- Learn names of some hymn writers

### LANGUAGE ARTS

#### Viewing

- Interpret impressions from visual media that influence understanding
- Understand similarities and differences among a variety of media
- Determine correct word meaning from visual context using electronic devices

#### Listening

- Interpret a speaker's topic, purpose, and perspective
- Use listening skills in group settings
- Take brief notes to identify main points and key information
- Draw inferences and reach conclusions

#### Reading

- Read independently, selecting appropriate reading strategies
- Use dictionary, glossary, thesaurus, encyclopedia, card catalog, and electronic devices
- Use abstract vocabulary to extend reading vocabulary

- Use skim for overview and scan for specific information to improve comprehension
- Use compare and contrast to improve comprehension

**Speaking**

- Use oral language skills in a variety of settings
- Participate in group discussions, refine and use cooperative group processes
- Identify persuasive messages

**Visually Representing**

- Develop visual media to model responsible decision-making skills
- Demonstrate how visual media techniques establish mood
- Develop visual media to show similarities and differences

**Writing**

- Practice the writing process
- Use characteristics of good writing
- Use figurative language to describe characters

**MATH****Number and Operations**

- Understand place value through billions
- Be proficient in counting money and making change
- Develop and use number sense for whole numbers, fractions and decimals
- Develop and apply number theory concepts, e.g. multiples, primes and factors in real world and mathematical situations
- Determine pairs of numbers given a relation or rule, and determine the relation or rule of given pairs of numbers
- Understand how basic mathematical operations are related
- Develop, analyze and explain procedures for computation and techniques for estimation
- Select appropriate methods and tools for computing with whole numbers, fractions and decimals from among mental computation, estimation, calculator and paper/pencil
- Round whole numbers to the designated place value
- Identify and generate equivalent forms of fractions, decimals and percents
- Recognize, model and describe multiples, factors, composites and primes
- Determine the greatest common factor (GCF) and least common multiple (LCM) of two numbers
- Convert fractions to the least common denominator (LCD)
- Reduce fractions to simplest form (lowest terms)
- Add and subtract time using renaming

**Algebra**

- Graph linear equations with one variable
- Use calculators, computers, tables and graphs to develop and interpret patterns
- Understand and use formulas
- Develop skill in solving and writing linear equations using informal and formal methods
- Investigate inequalities and nonlinear equations
- Apply order of operation rules

**Geometry**

- Learn the relationship between radius and diameter
- Classify angles according to the measure
- Identify and select appropriate units to measure angles (degrees)
- Understand and use linear, square and cubic units
- Count faces, vertices and edges
- Create perspective drawings
- Describe ray, segment, interior and exterior of an angle
- Recognize and create patterns with tessellations

**Measurement**

- Identify the paths between points on a grid or coordinate plane and compare the lengths of the paths, e.g. shortest path, paths of equal lengths
- Demonstrate and describe the difference between covering the faces (surface area), and filling the interior (volume), of 3-dimensional objects
- Use standard angles ( $45^\circ$ ,  $90^\circ$ ,  $120^\circ$ ) to estimate the measure of angles and use a protractor to measure and draw angles
- Convert one metric unit to one customary unit and one customary unit to one metric unit
- Understand that measurement is not exact, e.g. when measured multiple times, measurements may give slightly different numbers
- Understand and explain how differences in units affect precision
- Measure length to the nearest cm and  $\frac{1}{8}$  of an inch

**Data Analysis and Probability**

- Collect and organize data, then determine appropriate method and scale to display data
- Find the mean, median, mode and range of a given set of data and use these measures to describe the set of data
- Use calculators to simplify computations and use computers to assist in generating and analyzing information
- Sample and analyze data, making predictions and conjectures based on samples
- Distinguish between a population and a sample
- Discuss the reasonableness of the data and the results
- List all possible outcomes of an event
- Read, construct and interpret frequency tables
- Make predictions based on experimental and theoretical probabilities

**PHYSICAL EDUCATION****Spiritual Emphasis**

- Recognize that God's ideal for quality living includes a healthy lifestyle
- Incorporate into one's lifestyle the principles that promote health: nutrition, exercise, water, sunlight, temperance, air, rest, trust in God
- Avoid at-risk behaviors
- Apply Christian principles in recreation and sports
- Achieve a balance in work and leisure; balancing physical, mental, social and spiritual activities
- Recognize the interaction of physical, mental and spiritual health with emotional and social well-being

**Movement and Motor Skills**

- Demonstrate mature form for all basic manipulative, locomotor and non-locomotor skills
- Demonstrate increasing competence in more advanced specialized skills
- Adapt and combine skills to the demands of increasingly complex situations of selected movement forms
- Demonstrate beginning strategies for net and invasion games
- Apply previously learned knowledge, or use instruction to improve performance
- Apply information from a variety of internal and external sources to improve performance
- Identify and apply principles of practice and conditioning that enhance performance
- Recognize sport specific movement patterns that can be applied to games, e.g. similarity of the ready position in striking movement forms
- Understand terms that describe basic movement
- Use basic offensive and defensive strategies in non-complex settings

**Lifestyle and Fitness**

- Identify opportunities in the school and community for regular participation in physical activity
- Participate daily in some form of health-enhancing physical activity
- Discover personal interests and capabilities in regard to one's exercise behavior
- Identify the critical aspects of a healthy lifestyle
- Participate in moderate to vigorous physical activity in a variety of settings

- Monitor intensity of exercise
- Understand the reason for proper cool-down and warm-up techniques
- Begin to develop a strategy for the improvement of selected fitness components
- Work somewhat independently with minimal supervision in pursuit of personal fitness goals
- Meet the health-related fitness standards as defined by a standard physical fitness test, e.g. AAHPERD Physical Best, Fitnessgram, President's Challenge
- Recognize physical activity as a positive opportunity for social and group interaction
- Experience enjoyment from participation in physical activities
- Use physical activity to express feelings and relieve stress
- Seek personally challenging experiences in physically active opportunities

#### **Sportsmanship and Appropriate Behaviors**

- Participate in establishing rules, procedures and etiquette that are safe and effective for specific activity situations
- Work cooperatively and productively in a group to accomplish a set goal in cooperative and competitive activities
- Make conscious Christ-like decisions about applying rules, procedures and etiquette
- Utilize time effectively to complete assigned tasks
- Acknowledge differences in the behaviors of people of different gender, culture, ethnicity, development and disability by learning more about both similarities and differences
- Cooperate with disabled peers and those of different gender, race, ethnicity and religion
- Work cooperatively with both more and less skilled peers

### **SCIENCE**

**Physical:** Energy Waves (Electromagnetic Spectrum, Heat, Light, Mirrors/Lenses, Sound, Waves)

- Identify, describe and compare different types of wave energy
- Describe the organization of the electromagnetic spectrum and the uses/applications of each type of electromagnetic wave
- Compare electromagnetic (heat, light, radio) waves and mechanical (sound, water) waves
- Explore characteristics of heat, light, and sound
- Compare and contrast types of mirrors and lenses
- Define a wave and describe characteristics and features of waves

**Life:** Cells, Classification/Behavior, Fish

- Describe, explain and compare the structure and function of cells
- Identify the characteristics of living things
- Use the standard classification system to group animals based on their characteristics
- Identify features of fish that distinguish them from other classes of animals

**Earth:** Oceanography, Meteorology: Air Pressure, Climate, Earth's Atmosphere, Water Cycle, etc.

- Describe the physical structures of and ecosystems present in the ocean
- Study currents, tides and waves
- Explain air pressure and local/global winds, how they are measured and their effects on weather
- Distinguish between climate and weather and identify factors that affect climate
- Describe Earth's atmospheric layers and the "greenhouse" effect
- Explain the water cycle and its relationship to weather and climatic patterns

**Health:** Reproductive System, Mental/Emotional Health

- Explain human reproduction and development
- Identify the physical, emotional, intellectual and social changes that occur at puberty
- Describe God's plan for human sexual behavior
- Know ways to seek assistance if worried, abused or threatened
- Recognize how mood changes and strong feelings affect thoughts and behavior, and how they can be managed successfully
- Describe how personality, relationships and self-concept affect mental and emotional health.

#### **Scientific Inquiry**

- Make observations

- Ask questions or form hypotheses based on these observations
- Plan a simple investigation
- Collect data from the investigation
- Use the data collected from the investigation to explain the results
- Safely use and store tools and equipment

**Service/Career Options**

- Explore ways to use Physical, Life, Health, and/or Earth Science to serve the community
- Identify careers in areas of science

**SOCIAL STUDIES**

**OVERRIDING STATEMENTS:** Civics, geography and economics should be studied within the context of the history for each grade.

**INTEGRATION OF FAITH & LEARNING:** Although individual religious concepts are not explicitly stated, the idea of God's leading in the affairs of history and human relationships should be embedded in all of the social studies lessons.

**American History:** Native People, Exploration/Colonization, Pre-Independence Movement, American Revolution, Territorial Expansion – 1801-1861, Westward Expansion, Current Events

- Understand God's ultimate control and protection over human affairs
- Describe the relationships between key people/groups, events and cultures in US history
- Know causes and effects of key influences/events and be able to place them on a time line
- Understand and interpret key events and issues in US history around commonality-diversity, continuity-change, conflict-cooperation, individualism-interdependence, interaction within different environments
- Interpret major events, issues and developments involved in making a new nation within the following topical areas: Land and people before Columbus, Age of Exploration, Settling the Colonies, War of Independence and Westward Expansion
- Understand the role and work of the Adventist Church in North America

**Civics:** Ideas about Civic Life, Politics and Government

- Understand how participation in government affects citizen life e.g. check and balances
- Understand the constitution of the United States and how it affects one's life
- Know how the constitution protects the rights of individuals
- Know the importance of Christian citizenship and cultural diversity
- Understand socially acceptable ways of participation in activities to achieve group goals

**Geography:** Geographic Features and Patterns of the Environment

- Prepare, examine and interpret charts and maps that show key geographic information such as population, climate, natural resources, movement
- Locate and identify the continents of the world, the fifty states and the major cities of the United States and major physical features of North America
- Identify patterns of migrations and cultural interactions in the United States
- Understand the effects of weather/climate on migration patterns
- Recognize that limited resources are used to meet basic needs and unlimited wants
- Understand how physical and human activity (e.g. pollution, deforestation, flood plains) has impacted changes in physical environment

**Economics**

- Understand responsibilities of Christian stewardship in a global economy
- Understand that all economic choices have costs and benefits
- Know the differences between needs and wants and their relationship to economic tradeoffs
- Understand how supply/demand and price increase/decrease influence consumers and the economy
- Identify economic systems and terms e.g. capitalism, inflation, free enterprise

**TECHNOLOGY**

- Demonstrate proper use and care of computers and input/output devices
- Learn to troubleshoot basic malfunctions
- Practice keyboarding, using correct hand position and posture
- Use word processing, editing and file management skills
- Begin using presentation software
- Use a variety of electronic resources to enhance and access information
- Know proper technology terms
- Understand consumer issues regarding technology in every aspect of our lives
- Investigate technology-related occupations
- Use courtesy while sharing computer time
- Become aware of legal issues when using software
- Identify computer abuse including use of Internet