

# CURRICULUM GUIDE

Fifth Grade

## FIFTH GRADE

### LANGUAGE ARTS

**Read with understanding and fluency. (State Goal 1).**

**Students will be able to apply word analysis and vocabulary skills to comprehend selections.**

Students will be able to:

- apply word and structural analysis strategies to decode unknown words (such as the use of common endings, compound words, spelling patterns, prefixes, suffixes, and root/base words).
- clarify word meaning through the use of context clues, resource glossaries, and dictionaries.
- acquire and use new words in reading, speaking, and writing.

**Students will be able to apply reading strategies to improve understanding and fluency.**

Students will be able to:

- establish purposes for reading.
- preview text by skimming and scanning.
- identify and use nonfiction text structures to enhance meaning.
- select reading strategies according to the purpose, structure, and genre of text.
- make predictions.
- connect important ideas and link text nonfiction reading materials to previous experiences and knowledge.
- identify and restate the main idea.
- make inferences, draw conclusions, and questions, and use specific examples from the text to support thoughts
- relate cause and effect.
- summarize content.
- use context clues
- continuously check and clarify for understanding, recognize when text fails to make sense, self-correct errors that interfere with meaning, and adjust reading rate to increase comprehension.
- read aloud accurately with ease and expression.



### **Students will be able to comprehend a broad range of reading materials.**

Students will be able to:

- use specific information to form questions, verify predictions, and support thinking.
- differentiate among and identify the characteristics of a variety of genres including historical fiction, tall tales, and poetry.
- interpret supplemental information to enhance understanding of text (such as charts, pictures, captions, and other visual clues).



### **Read and understand literature representative of various societies, eras and ideas. (State Goal 2).**

**Students will understand how literary elements and techniques are used to convey meaning.**

**Students will be able to:**

- show relationships between and among events, characters, and texts.
- identify the use and effect of figurative language and imagery.

### **Students will read and interpret a variety of literary works.**

Students will be able to:

- connect events and situations in both fiction and nonfiction to personal experience, the world, and other texts.
- explain and relate to the ways in which characters deal with conflict, solve problems, and reach their goals.
- analyze, compare, and contrast themes, conflicts, and points of view.

### **Write to communicate for a variety of purposes. (State Goal 3).**

**Students will use correct grammar, spelling, punctuation, capitalization and structure.**

Students will be able to:

- identify and correctly use various types and forms of nouns, pronouns, adjectives, adverbs, verbs, conjunctions, and interjections.
- demonstrate correct spelling of high frequency words, and apply spelling patterns and reliable spelling strategies in written work.
- use appropriate resources to spell unfamiliar words in written work.
- use periods, question marks, exclamation points, commas, apostrophes, quotations, colons, and capitalization correctly.
- express thoughts using both simple and compound sentence structure.

**Students will compose well-organized and coherent writing for specific purposes and audiences.**

Students will be able to:

- vary sentence types and use vivid, specific language to elaborate and expand ideas.
- consider audience and purpose when choosing vocabulary and writing style.
- use the writing process to produce persuasive, narrative, and expository written pieces:
  - Pre-write: generate and organize ideas around a given format or structure;
  - draft: follow correct format, maintain focus, and support ideas with details;
  - revise: make improvements to content and focus, sentence structure, word choice, support and elaboration, and transitions;
  - edit: correct errors in organization, capitalization, grammar, spelling, punctuation, and sentence structure;
  - publish: use keyboarding or cursive writing to produce a final copy.



**Students will communicate ideas in writing to accomplish a variety of purposes.**

Students will be able to:

- write multi-paragraph essays to inform, persuade, and describe.
- write a concise summary.
- respond to text using written language.
- take notes in content-area subjects.

**Listen and speak effectively in a variety of situations. (State Goal 4).**

**Students will listen effectively in formal and informal situations.**

Students will be able to:

- display attentive listening behaviors and listen for specific purposes.
- ask and respond to questions related to oral presentations.
- restate and carry out a variety of oral instructions.
- summarize or paraphrase information presented orally.

**Students will speak effectively using language appropriate to the situation and audience.**

Students will be able to:

- use spoken words correctly, fluently, and meaningfully for a variety of purposes and audiences.
- demonstrate appropriate volume, articulation, pronunciation, rate, expression, eye contact, and posture when speaking.
- participate appropriately in classroom discussions.

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**Use the language arts to acquire, assess and communicate information. (State Goal 5).**

**Students will locate, organize, and use information from various sources to answer questions, solve problems and communicate ideas.**

Students will be able to:

- formulate questions and collect information relevant to the topic.
- understand the purpose and use of various reference resources.
- use a variety of accurate, current, and reliable resources to gather information.



**Students will analyze and evaluate information acquired from various sources.**

Students will be able to:

- select and organize information from various sources for a specific purpose.

**Students will apply acquired information, concepts, and ideas to communicate in a variety of formats.**

Students will be able to:

- write letters, reports, and stories using acquired information.
- use available technology as a publishing method for sharing information.

## MATHEMATICS

**Demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, ratios and proportions. ( State Goal 6).**

**Students will be able to develop an understanding of mathematical thinking, language and symbols.**

Students will be able to:

- develop a working knowledge of key vocabulary when speaking and writing about mathematics.
- identify and use mathematical symbols correctly when reading and writing number sentences.
- develop a sense of numbers in order to represent and use them in flexible ways.
- use estimation strategies to determine if answers are reasonable.
- develop mental computation skills including:
  - adding and subtracting 2 digit numbers;
  - estimating for addition, subtraction, multiplication, and division;
  - rounding to demonstrate approximate value up to billions;
  - dividing three-and four-digit dividends by one -and two-digit divisors with and without remainders;

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- adding, subtracting, multiplying, and dividing by multiples of 10, 100, and 1,000.
- check accuracy of computation by using inverse operations or a calculator.
- use a variety of strategies to solve story problems.
- write an explanation and rationale for the steps and solution of various mathematical problems.
- explain mathematical reasoning verbally; explain why answers are reasonable.
- label answers and measurements with appropriate units.
- given a specific story problem, write a corresponding number sentence.
- given a specific number sentence, write a corresponding story problem.
- know how and when to use a calculator when working with large numbers or in appropriate problem-solving situations.



### **Students will develop an understanding of numeration and order.**

Students will be able to:

- recognize relationships and relative sizes among whole numbers, fractions, and decimals.
- use arrays to explore prime and composite numbers.
- interpret and use standard and expanded notation up to billions.
- use place value to read, write, compare, and order numbers up to billions.
- read, write, and identify place value in decimals up to thousandths.
- round decimals to the nearest one, tenth and hundredth.
- round numbers to the nearest ten, hundred, thousand, ten thousand, hundred thousand, million and billions.
- identify and read fractions as equal parts of a whole and of a set.
- identify fractional parts of whole numbers (such as 3 is \_\_\_ of 12).
- read, write, compare, and order fractions, mixed numbers and decimals.
- generate equivalent fractions using least common multiples and greatest common factors.
- express fractions in lowest terms.
- rename whole numbers, mixed numbers, improper fractions, and decimals
- recognize the relationship among fractions and decimals
- convert equivalences among fractions and decimals
- know the common fraction and decimal equivalences of one fourth, one half, and three fourths.

### **Students will develop computational skills related to number operations.**

Students will be able to:

- apply knowledge of basic addition and subtraction facts to solve problems.
- know multiplication and division facts from 0 to 12.
- add and subtract up to seven-digit numbers with and without regrouping.
- multiply multi-digit numbers by one- and two-digit multipliers.
- divide up to four-digit dividends by one- and two digit divisors with and without remainders.
- add, subtract, and multiply decimals up to thousandths and fractions with like and unlike denominators.
- \*interpret the meaning of remainders when solving division problems.
- use various algorithms to solve addition, subtraction, multiplication, and division problems.

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**Estimate, make and use measurements of objects, quantities and relationships and determine acceptable levels of accuracy. (State Goal 7)**

**Students will measure and compare quantities using appropriate units, instruments and methods.**

**Students will be able to:**

- know equivalences related to measurement and convert among units within systems (such as  $12 \text{ in} = 1 \text{ ft}$ ,  $100 \text{ cm} = 1 \text{ m}$ ,  $1 \text{ c} = 8 \text{ fl oz}$ ,  $1 \text{ pt} = 2 \text{ c}$ ,  $16 \text{ oz} = 1 \text{ lb}$ ).
- measure accurately with a variety of tools (such as a ruler, meter stick, thermometer, or balance).
- measure length of objects to the nearest millimeter, one-tenth of a centimeter, and one-eighth of an inch.
- estimate, measure, and compare using appropriate customary and metric units of measurement for length, width, height, weight/mass, volume/capacity, and temperature.
- measure and compare the perimeter and area of polygons.
- locate and plot points on a coordinate grid using ordered pairs.
- apply knowledge of clock and calendar time equivalences to problem-solving situations (such as calculating elapsed time).
- record and represent the value of monetary amounts using correct symbols and notation.
- solve problems using money.



**Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results. (State Goal 8).**

**Students will develop an understanding of patterns, functions, and sequences.**

Students will be able to:

- describe, extend, and make generalizations about geometric and numeric patterns.
- use multiples and factors to find and identify patterns in multiplication and division.
- use patterning as a problem-solving strategy.
- determine the rule for a given pattern; create patterns to match a given rule.
- sort, classify, and order objects by common attributes.
- use the order of operations in order to solve an equation (such as parenthesis, multiplication, division, addition, and subtraction).

**Students will develop an understanding of algebra and uses of variables.**

Students will be able to:

- use a letter or symbol to represent the concept of a different variable as an unknown quantity.
- determine the value of an unknown number in an equation or number sentence.
- use variable to describe pattern rules or formulas.
- find missing numbers in equivalent fractions.
- create equations and solve for the unknown.
- determine if an equation is true or false for a given variable.

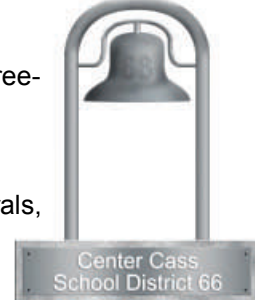
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**Use geometric methods to analyze, categorize and draw conclusions about points, lines, planes and space. (State Goal 9).**

**Students will demonstrate and apply geometric concepts involving points, lines, planes and spatial sense.**

Students will be able to:

- identify, describe, compare, classify, and analyze attributes of two- and three-dimensional figures.
- name, draw, describe, compare, and classify various lines and angles.
- use a protractor to accurately measure and draw angles.
- identify, draw, describe, compare, and classify various types of quadrilaterals, triangles, and other polygons.
- distinguish between regular and irregular polygons.
- identify and draw all lines of symmetry in figures and designs.
- label a circle's radius, diameter, chord, and circumference.
- observe and describe the transformation of shapes in terms of direction and degrees as they slide, flip, and turn (such as clockwise quarter turn=90 degrees to the right).
- draw or construct various polygons and three-dimensional figures.
- describe the results of folding, cutting, or combining given two dimensional figures (such as a square can be folded in to a rectangle or triangle).
- evaluate whether polygons are congruent or similar.



**Collect, organize and analyze data using statistical methods; predict results; and interpret uncertainty using concepts of probability. (State Goal 10).**

**Students will be able to organize, describe and make predictions from existing data. Students will be able to:**

Students will be able to:

- collect and record data from real-life experiences.
- organize and display data in a variety of ways.
- use landmarks (maximum, minimum, range, median, and mode) to analyze data sets and make descriptive statements about the data.
- read and interpret data from a variety of graphs.
- formulate predictions and draw conclusions from information represented on graphs, charts, and tables.
- evaluate the reliability of data and pose questions to draw conclusions or make predictions.
- identify possible outcomes for a chance event; predict the probability, and test the prediction.
- record the outcomes for simple experiments of chance.
- express probability as a ratio and fraction. (such as 1 out of 2, 1:2)

## **SOCIAL STUDIES**

**Understand political systems, with an emphasis on the United States. (State Goal 14).**

**Students will understand and explain basic principles of the United States government.**

Students will be able to:

- name reasons for forming a government
- summarize the main points of selected historical documents.
- list the functions of the three branches of the state and federal governments.
- compare the three branches of the United States government.
- analyze the system of checks and balances and explain the concept of separation of powers.



**Students will understand the election processes and responsibilities of citizens.**

Students will be able to:

- describe the rights and responsibilities of United States citizens.
- explain the election process and the importance of voting in a democracy.
- describe the origins of basic freedoms for the people of the United States.

**Students will understand the roles and influences of individuals and interest groups in the political systems of Illinois, the United States and other nations.**

Students will be able to:

- identify the contributions of selected individuals that shaped U.S. public policies.
- examine how the rights of diverse populations differed in the early years of the new nation.

**Students will understand United States foreign policy as it relates to other nations and international issues.**

Students will be able to:

- determine and explain the leadership role of the United States in international settings.

**Understand economic systems, with an emphasis on the United States. (State Goal 15).**

**Students will understand how different economic systems operate in the exchange, production, distribution and consumption of goods and services.**

Students will be able to:

- explain how an economic system includes what goods and services are produced, how they are produced, and who consumes them.
- define productivity and describe how productivity increases through the use of inventions and technology.

**Students will understand that scarcity necessitates choices by consumers.**

Students will be able to:

- list factors that affect consumer choices.
- explain the relationship between the quantity of goods/services purchased and their price.
- identify and explain examples of competition in the economy.

**Students will understand the scarcity necessitates choices by producers.**

Students will be able to:

- describe the relationship between price and quantity supplied of a good or service.

**Students will understand trade as an exchange of goods and services.**

Students will be able to:

- explain why people and countries voluntarily exchange goods and services.



**Students will understand the impact of government policies and decisions on production and consumption in the economy.**

Students will be able to:

- define public goods and services and explain how governmental bodies use taxes.

**Understand events, trends, individuals, and movements shaping the history of Illinois, the United States, and other nations. (State Goal 16).**

**Students will apply the skills of historical analysis and interpretation.**

Students will be able to:

- read historical stories and determine events that influenced their writing.
- recognize various points of view on a given historical event.
- interpret information from maps, graphs, and charts relevant to research questions.

**Students will understand the development of significant political events.**

Students will be able to:

- explain the political contributions of significant figures in U.S. political history.

**Students will understand the development of economic systems.**

Students will be able to:

- analyze historical figures who have advanced the rights of individuals and groups to promote the common good.
- describe and assess the effects of a significant invention or technological innovation on the environmental history of the world.

## **Understand world geography and its effects on geography on society with an emphasis on the United States. (State Goal 17)**

### **Students will locate , describe and explain places, regions, and features on the Earth.**

Students will be able to:

- use map skills to locate, label, and compare major landforms, bodies of water, and climate regions on a map.
- use map skills to compare various cities, states, regions, and countries in relative and exact locations.

### **Students will analyze and explain characteristics and interactions of the Earth's physical systems.**

Students will be able to:

- describe how natural events in the physical environment affect human activities and explain how human activities affect the environment.

### **Students will understand relationships between geographic factors and society.**

Students will be able to:

- describe the relationships among location of resources, population distribution, and economic activities.

### **Students will understand the historical significance of geography.**

Students will be able to:

- analyze how physical features have both posed barriers and provided avenues to settlement in the United States.

## **Understand social systems, with an emphasis on Illinois and the United States. (State Goal 18).**

### **Students will compare characteristics of culture as reflected in language, literature, the arts, traditions, and institutions.**

Students will be able to:

- relate how culture is shared through music, art, and literature throughout the world.

### **Students will understand the roles and interactions of individuals and groups in society.**

Students will be able to:

- describe interactions of individuals, groups, and institutions in various historical and real-world situations.
- explain ways institutions meet the needs of individuals in society.



## Science

**Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments, and solve problems. (State Goal 11)**

**Students will know and apply the concepts, principles and processes of scientific inquiry.**

Students will be able to:

- brainstorm possible questions for investigation consideration.
- convert questions into hypothesis statements.
- identify simple independent and dependent variables to be investigated.
- follow procedural steps in a logical sequence.
- collect accurate data, with appropriate measuring instruments, from multiple trials.
- organize data into charts or graphs for data analysis.
- draw reasonable and accurate conclusions based on data.



**Understand the fundamental concepts, principles, and interconnections of the life, physical, and earth/space sciences. (State Goal 12)**

Students will be able to:

- develop a working knowledge of key vocabulary related to units of study

**Know and apply concepts that describe how living things interact with each other and their environment.**

Students will be able to:

- describe relationships among various organisms in their environments (e.g., predator/prey, parasite/host, food chains and food webs).
- Identify and classify biotic and abiotic factors in an environment that affect population density, habitat and placement of organisms in an energy pyramid.
- Identify physical features of plants and animals that help them live in different environments (e.g., specialized teeth for eating certain foods, thorns for protection, insulation for cold temperature).
- compare and assess features of organisms for their adaptive, competitive and survival potential (e.g., appendages, reproductive rates, camouflage, defensive structures).

**Students will be able to know and apply concepts that describe properties of matter and energy and the interactions between them.**

Students will be able to:

- differentiate among the three states of matter and describe the properties of a solid, liquid, and gas.
- describe and compare types of energy including light, heat, sound, electrical and mechanical.
- model and describe the chemical and physical characteristics of matter (e.g., atoms, molecules, elements, compounds, mixtures)

**Know and apply concepts that describe force and motion and the principles that explain them.**

Students will be able to:

- demonstrate and explain ways that forces cause actions and reactions (e.g., magnets attracting and repelling; objects falling, rolling and bouncing)

### **Students will be able to know and apply concepts that describe the features and processes of the Earth and its resources.**

Students will be able to:

- identify and explain natural cycles of the Earth's land, water and atmospheric systems (e.g. water cycle weather patterns).
- describe interactions between solid earth, oceans and the atmosphere( e.g., erosion, El Niño)
- examine ways that people can preserve and conserve natural resources.

### **Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.**

Students will be able to:

- identify and explain natural cycles and patterns in the solar system (e.g., order of the planets; moon phases; seasons as related to Earth's tilt, one's latitude , and where Earth is in its yearly orbit around the sun)
- explain the apparent motion of the sun and stars.
- describe the organization and physical characteristics of the solar system (e.g., sun, planets, satellites, asteroids, comets)
- compare and contrast the sun as a star with other objects in the Milky Way Galaxy (e.g., nebulae, dust clouds, stars, black holes).



### **Understand the relationships among science, technology, and society in historical and contemporary contexts. (State Goal 13)**

Students will be able to:

- use equipment and materials in a safe and proper manner when conducting inquiry or design investigations.
- recognize the necessity of controlled variables
- identify that scientists often repeat an experiment many times before accepting a consistent result as true.
- explain the importance of keeping accurate and detailed records in scientific investigations.
- recognize the impact of science and technology innovations on society and the environment.

### **Understand human body systems and factors that influence growth and development. (State Goal 23)**

#### **Students will understand human body systems. (State Goal 23A)**

Students will be able to:

- differentiate between positive and negative effects of health-related actions on body systems.
- begin to recognize physical, mental, and social changes.

#### **Students will understand principles of health promotion and the prevention and treatment of illness and injury.**

Students will be able to:

- recognize that some diseases can be controlled more easily than others and discuss the differences between bacteria and viruses.
- summarize how to prevent accidents at school, at home, and in the community.