4th Grade Indiana Academic Standards

(At-A-Glance)

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| **SCIENCE**  Physical Science   * Investigate transportation systems and describe the forces affecting their motion. * Understand relationship of speed and energy. * Investigate simple and compound machines. * Investigate how to generate and convert energy into its different types, as well as how it moves from place to place with light, heat, sound, and electricity.   Earth & Space Science   * Investigate the phases and movement of the moon and its effects on the planet. * Investigate natural resources and various sources of energy, including fossil fuels. * Describe how geological forces change the shape of the land suddenly and over time. * Develop solutions for problems that arise from human-environment interactions.   Life Science   * Understand basic genetics, adaptations, and evolution. * Investigate how changes in the environment affect the populations of different species. * Investigate different ecosystems and how species are adapted to survive in them.   Engineering   * Identify problems with designs that reflect needs or wants. Include criteria for success, time, cost of materials, etc. * Construct, compare, and evaluate multiple solutions to problems. * Construct and perform fair investigations that control variables, then identify areas for improvement.   **HEALTH**  Health & Wellness   * Comprehend health promotion and disease prevention. * Analyze influence of family, peers, culture, media, technology, and more on health behaviors. * Access and apply valid health information. * Use interpersonal skills to enhance health, including refusal skills and conflict resolution. * Use decision-making skills to enhance health. * Set health goals and monitor progress. * Use health-enhancing behaviors to prevent injuries and diseases. * Advocate for personal, family, & community health.   **LANGUAGE ARTS**  Reading: Literature   * Refer to details from text when making inferences. * Paraphrase or retell main events in a story. Identify theme and provide evidence. * Describe a character, setting, or event in a story or play, and describe how they impact the plot. * Explain major differences between poems, plays, and prose, referring to their structural elements. * Compare and contrast the points of view of stories. * Describe how visual/multimedia representations can enhance the meaning of a text. * Compare and contrast the treatment of similar themes, topics, and patterns of events in stories.   Reading: Nonfiction   * Determine main idea and details of nonfiction texts, and explore/explain relationships of terms & ideas. * Use text features to quickly locate information. * Compare & contrast primary and secondary sources. * Distinguish between fact and opinion. * Combine information from multiple sources to better understand the topic.   Reading: Vocabulary   * Use context clues to understand unfamiliar words. * Identify relationships among words. * Use prefixes, suffixes, roots to understand words. * Consult reference materials to clarify & pronounce new words. * Study homophones, homographs, synonyms, antonyms, multiple meaning words, and figurative speech (similes, metaphors, hyperbole, idioms, proverbs, adages, etc.) and how they enhance a work.   Writing   * Write legibly in cursive and print. * Write persuasive compositions in a variety of forms. * Write informative compositions on many topics. * Write narrative compositions in a variety of forms. * Apply the writing process to generate drafts, revise and edit, interact & collaborate, and publish info. * Conduct short research on topics. * Demonstrate command of English spelling, grammar, punctuation, and usage. Correctly write simple, compound, and complex sentences.   Speaking & Listening   * Listen and speak effectively for a variety of audiences and purposes. Create focused, organized, clear multimedia oral presentations. * Engage in grade-appropriate collaborative discussions, including carrying out assigned roles. * Pose and respond to questions and discussions. * Review and summarize key ideas from discussions and presentations.   Media Literacy   * Identify the purpose and reliability of information found in electronic, print, and mass media. * Recognize claims and evidence presented in media. | **SOCIAL STUDIES**  Geography   * Use latitude & longitude as well as other map features to identify Indiana cities & features. * Map and describe the regions of Indiana as well as resources and crop regions. * Explain how glaciers shaped Indiana’s surface. * Understand the seasons & climate of Indiana. * Describe how geography has and continues to present challenges to the people of Indiana. * Understand trade routes and their importance on the settlement of Indiana. * Investigate immigration patterns and Indiana’s cultural diversity, as well as its relationship with the rest of the world. * Read and compare maps and other texts of IN.   History   * Investigate and analyze historical events in Hoosier history, including:   + Pre-European influence and Native Americans   + American Revolution & Indiana Territory   + Early Statehood & Growth   + Indiana’s place in the Civil War   + Indiana’s agricultural, industrial, transportation, and political growth and influence   + Indiana’s current businesses & technologies   + Create timelines, investigate primary resources, construct narratives, and research major places, people, and events of Indiana.   Civics and Government   * Explain the purpose of Indiana’s Constitution and the rights people have according to Article I. * Understand the three branches of state government, as well as other major state offices and how they are chosen. * Explain civic responsibilities and virtues. * Use resources to take a position on a public issue.   Economics   * Identify Indiana goods and services over time, including emerging global connections. * Define productivity and explain how technology and education have improved the productivity of Indiana. * Understand how both parties benefit from trade and the functions of money. Develop a savings plan and create a budget. * Understand the relationship between supply, demand, and prices. Define profit. * Identify Indiana entrepreneurs. * Identify goods and services provided by the state.   **MATH**  Number Sense   * Read, write, compare, and round whole numbers up to 1,000,000 in different forms. * Express whole numbers as fractions. * Convert mixed numbers to improper fractions (and vice versa). * Understand equivalent fractions. * Compare fractions with different denominators. * Understand that you can only compare and manipulate two or more fractions if they refer to the same whole. * Write tenths and hundredths as decimals & fractions in various ways, using words, numbers, and visual models. * Compare decimals to hundredths. * Find factor pairs and multiples for numbers and determine rules of divisibility.   Computation   * Add and subtract multi-digit numbers fluently. * Multiply 2x2 digit and up to 4x1 digit numbers. * Divide, including with remainders in the quotients. * Multiply fluently within 100. Understand the different properties of multiplication. * Add and subtract fractions and mixed numbers.   Algebraic Thinking   * Solve real-world problems with operations. * Understand equations as comparisons and represent comparisons as equations. * Solve SIMPLE problems with a variable, such as completing a function table. Understand and generate number patterns that follow rules.   Geometry   * Identify, describe, and draw different quadrilaterals. * Identify lines of symmetry. * Identify, describe, understand, and draw specific rays, angles, lines, and polygons. * Classify triangles and quadrilaterals according to sides and angles.   Measurement   * Measure length to nearest ⅛ inch and millimeter. * Understand and estimate measurements in various systems of units. Convert units. * Use all four operations in solving word problems that deal with time, distance, money, etc. * Understand and demonstrate how to measure angles using specified tools.   Data Analysis   * Ask questions that can be addressed with data. Use observations, surveys, and experiments to collect data, then represent data using tables and graphs. Interpret data from various types of graphs. * Make a line plot to display data in fractional increments. Use data from the line plot to answer questions. * Interpret data displayed in a circle graph. |