

Basic Operations and Concepts:

- Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.
- Demonstrate and understanding of concepts underlying hardware, software, and connectivity, and of practical applications to learning and problem solving.

Math

- Sequencing with tables, graphs, and equations
- Use Order of Operations to solve problems
- Identify patterns using sequences and exponents
- Calculate supplementary/complementary angles
- Find the absolute value of integers
- Compare integers; Add and subtract integers
- Solve equations using models and inverse operations
- Represent large numbers using scientific notation
- Use Tree Diagrams to determine probabilities
- Solve equations using multiplication and division
- Calculate the circumference of a circle
- Evaluate expressions containing decimals, fractions, and percents
- Identify similar figures
- Solve problems involving rate, time, and distance
- Solve problems involving mixed units of the same attribute (i.e. money, length, etc.)
- Solve simple linear equations

- Construct, interpret and evaluate data using Stem & Leaf Plots
- Construct, interpret and evaluate data using Box and Whisker Plots
- Solve proportion and ratio problems
- Write fractions as decimals or percents
- Use Tree Diagrams and Experimental and Theoretical Probability to solve problems
- Write/Graph inequalities
- Calculate the area of polygons
- Calculate the surface area and volume of prisms
- Calculate the area and circumference of a circle
- Determine the relationship in 3-D objects
- Graph linear functions
- Rotations, Translations, and Reflections
- Solve inequalities
- Identify and classify quadrilaterals
- Solve problems using properties of polygons and circles
- Use permutations to solve problems
- Calculate the volume of pyramids and cones
- Analyze relationships and solve problems using the Pythagorean Theorem
- Describe and apply the probability of events

This curriculum guide is designed to give parents and students alike a clear representation of the academic goals and expectations of a particular grade level. Please utilize this information to support your child's quest to pursue a quality education.

Materials are available to you from our school to assist you with helping your child achieve these academic goals.

SEVENTH GRADE CURRICULUM GUIDE

Spencer Technology Academy

*“Moving Students
Beyond the Immediate”*



Spencer Technology Academy

*214 N. Lavergne
Chicago, Il. 60644*

*Phone: 773-534-6150
Fax: 773-534-6239*

A Seventh Grade Seahawk Student must have:

Literacy

A. Word Analysis and Vocabulary

- Expand listening and reading vocabulary
- Apply a variety of word meaning strategies before, during and after reading
- Assess author's word choice and identifies effect of literary device
- Apply word identification strategies (i.e. structural analysis, denotation, connotation, multiple meanings in context, word origin) to enhance reading independence

B. Comprehension and Fluency

- Use skimming to preview reading materials and scanning to see visual patterns and identify text structure before reading.
- Demonstrate understanding of text structure through use of graphic organizers and outlining.
- Summarize, infer, and draw conclusions about text, using prior knowledge.
- Apply self-monitoring techniques and adjusts rate to increase comprehension.
- Identify story elements, major and secondary themes and topics in text.
- Apply appropriate reading strategies (e.g. asks questions, takes notes, summarizes) to fiction and nonfiction texts within and across content areas.
- Read a variety of material for different viewpoints.
- Identify and understand character, setting, plot, conflict, and major and secondary themes.
- Recognize examples of traditional literature and non-fiction materials.
- Recognize various types of poetry (free verse, haiku, limerick, lyric and narrative).

- Identify elements of poetry
- Respond to literature through art, drama, music, writing, puppetry, and oral reading.
- Select material of high quality for personal reading

C. Writing and Spelling

- Use prewriting strategies (e.g. webbing, brainstorming, listing, note taking, outlining, graphic organizers.
- Develop compositions that include a variety of sentence structure and sentence types.
- Produce writing with appropriate focus, support/elaboration, organization, mechanics/grammar, and integration.
- Use transitional words and phrases within and between paragraphs.
- Edit for correct spelling, punctuation, and capitalization.
- Edit and revise to maintain a consistent tone and focus throughout a piece of writing.
- Demonstrate appropriate use of eight parts of speech.
- Use writing process (prewriting, drafting, revising, editing, and publishing) to produce well-developed expository, narrative, and persuasive pieces.

D. Listening and Speaking

- Listen critically and analytically
- Recall content (main idea and details) of message
- Infer and draw conclusions, synthesizes, analyzes, and evaluates information in presentations or messages
- Deliver oral presentation that is coherent, well organized, and rehearsed
- Use spoken language that is clear, audible, and appropriate
- Employ an engaging introduction, appropriate organization, and effective conclusion
- Use physical movements and nonverbal expressions to communicate message
- Formulate relevant and focused questions and answers in a variety of settings

Technology

Social, ethical, and human issues:

- Demonstrate knowledge of current changes in information technologies and effect those changes have on workplace and society.
- Exhibit legal and ethical behavior when using information and technology, and discuss consequences and misuse.
- Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems.

Technology productivity tools:

- Use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.
- Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum.

Technology Communication tools:

- Design, develop, publish, and present products (e.g., Webpages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom.

Technology research tools:

- Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum related problems, issues and information, and to develop solutions or products for audiences inside and outside the classroom.
- Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems.

Technology problem-solving and decision-making tools:

- Demonstrate an understanding of concepts underlying hardware, software, and connectivity .