Typical Course of Study: Grade 7

LANGUAGE ARTS

Reading Literature and Informational Text and Literacy in History/Social Studies, Science, and Technical Subjects

- Cite evidence from text to support analysis of both explicit and implicit messages within the text
- Find and explain one or more central ideas in a text and analyze their development
- Analyze how a theme or central idea develops throughout the text
- Summarize literary and informational or explanatory texts
- Analyze how elements of a story interact
- Analyze interactions between/among individuals, events, and ideas in a text
- Identify key steps in a text’s description of a process related to history or social studies
- Describe how a text presents information
- Follow a multistep written procedure when performing science or technical tasks
- Determine meanings and effects of words, phrases, or symbols as used in a text
- Analyze the effect of specific word choices on a text’s meaning and tone
- Analyze how a particular part of a text fits into the overall structure
- Analyze how the form or structure of a text contributes to its meaning
- Analyze how an author develops and contrasts points of view of different characters
- Analyze the relationship between a primary and secondary source on the same topic
- Compare and contrast a text to its audio, video, or multimedia version
- Integrate quantitative or technical information presented in text form with information expressed visually
- Trace and evaluate the argument and supporting reasons in a text
- Analyze whether an author supports a claim with sound reasoning and sufficient evidence
- Analyze and compare two or more authors’ presentations of the same information
- Compare and contrast a fictional portrayal and a historical account of the same period
- By the end of the academic year, read and understand grade-level literary and informational texts (including history/social studies, science, and technical subjects) independently and with proficiency

Speaking and Listening

- Participate in collaborative discussions on a variety of grade-level topics
- Express ideas clearly and respectfully ingroup discussions
- Follow agreed-upon rules and preparation procedures for discussions
- Listen and respond to others, building on others’ ideas
- Analyze ideas and details presented in many media and formats
- Identify an argument, claims; evaluate the soundness of reasoning and evidence
- Present claims or information in logical sequence supported with relevant facts and details
• Use clear pronunciation and appropriate eye contact and volume when speaking
• Add multimedia and visual components to clarify ideas in presentations
• Show command of formal English language when speaking for a variety of tasks

Writing
• Write arguments supported with clear reasons and relevant evidence, including arguments in history, social studies, science, and technical topics
• Write informative or explanatory pieces developed with relevant details, including arguments in history, social studies, science, and technical topics
• Write narrations that include details, put events in order, and provide a conclusion
• Produce effective writing appropriate to the task, purpose, and audience
• Strengthen writing by getting feedback, revising, editing, and rewriting
• Add dialogue and descriptions to develop characters and events
• Use tools, including the Internet, to produce and publish writing
• Cite sources for information used in writing
• Contribute to collaborative group writing projects
• Conduct short research tasks on a topic through investigation
• Gather information from various sources to answer a question
• Assess the credibility and accuracy of sources
• Quote or paraphrase data and conclusions while avoiding plagiarism
• Include evidence from literary or informational texts
• Regularly produce clear writing for a variety of tasks, purposes, and audiences (including writing in history/social studies, science, and technical subjects)

English Language Skills
• Explain the function of phrases and clauses and their use in specific sentences
• Use phrases and clauses correctly in a sentence
• Recognize and correct dangling and misplaced modifiers
• Identify and use simple, compound, complex, and compound-complex sentences
• Use conventions of English correctly when writing (capitalization, punctuation, and spelling)
• Spell grade-level words correctly
• Choose precise and concise words when writing or speaking
• Vary sentence patterns for meaning, interest, and style when writing; avoid passive construction
• Maintain consistency in style and tone when writing
• Know the difference between formal and informal English and when to use each

Vocabulary
• Use context clues to determine word and phrase meanings
• Use word structure clues to determine meanings of unknown words
• Use relationships between words to better understand each word
• Use references (print and digital) to determine or verify a word’s meanings, find its pronunciation or its part of speech
• Interpret and use figurative language in context
• Distinguish literal and nonliteral meanings of words in context
• Distinguish shades of meaning among related words
• Distinguish among connotations of words with similar denotations
• Learn and use grade-level general academic vocabulary
MATHEMATICS

The Number System
• Understand and explain addition and subtraction of rational numbers
• Understand and explain multiplication and division of rational numbers
• Apply properties of operations with rational numbers
• Convert rational numbers to decimals
• Know that the decimal form of a rational number terminates in zero or repeats
• Compute fluently with rational numbers
• Solve real world problems involving operations with rational numbers

Ratios and Proportional Relationships
• Recognize and represent proportional relationships between quantities
• Decide whether two quantities are in a proportional relationship
• Identify the constant of proportionality (unit rate) in proportional relationships
• Use equations to represent proportional relationships
• Solve multistep ratio and percent problems
• Analyze proportional relationships to solve real world and mathematical problems

Algebra and Functions
• Apply properties of operations to generate equivalent linear expressions
• Add, subtract, factor, and expand linear expressions with rational coefficients
• Use variables to represent unknown quantities
• Rewrite expressions in different forms in the context of a problem
• Construct equations to solve real world and mathematical problems
• Construct inequalities to solve real world and mathematical problems
• Graph and interpret the solutions sets of inequalities
• Identify the sequence of operations used in solving an equation
• Define slope as vertical change for each unit of horizontal change
• Identify the slope of a line from its graph

Geometry
• Construct triangles from three measures of angles or sides
• Identify and describe similarity relationships of polygons
• Interpret and create scale drawings of geometric figures
• Solve real world and mathematical problems involving scale drawings of geometric figures
• Solve real world and mathematical problems that involve vertical, adjacent, complementary, and supplementary angles
• Solve real world and mathematical problems involving angle measure
• Understand and apply formulas for area and circumference of a circle
• Understand and apply formulas for area, volume, and surface area
• Solve real world and mathematical problems involving area, volume, and surface area of quadrilaterals, polygons, cubes, right prisms, and cylinders
• Describe two-dimensional figures that result from slicing three-dimensional figures

Statistics and Probability
• Understand the concept and uses of statistics
• Find, use, and interpret measures of center and spread for a data set
• Understand and use random sampling to draw inferences about a population
• Informally assess the degree of visual overlap of two numerical distributions
• Understand the concept of probability of a chance event
• Express the likelihood of an event occurring with a number between 0 and 1
• Approximate the probability of a chance event by collecting data
• Draw probability models and use them to find probabilities
• Predict approximate relative frequencies of events
• Find probabilities of compound events using diagrams, tables, lists, or simulation
• Solve real world and mathematical problems involving statistics and probability

SCIENCE

Life Science
• Plant processes (photosynthesis, transpiration, respiration) and their byproducts
• Chemical reactions in organisms to use food
• Biodiversity
• Interdependent relationships among organisms in ecosystems
• Energy transfer in ecosystems
• Cycle of matter in ecosystems
• Disruptions and changes in ecosystems over time
• Cell structure and function
• Human body tissues, organs, and systems
• Health and nutrition
• Homeostasis in the human body

Physical Science
• Structure of atoms and molecules
• Behavior of atoms and molecules in solids, liquids, and gases
• Elements and compounds
• Periodic Table
• Physical and chemical changes in matter
• Chemical reactions; new substances from chemical reactions
• Energy released or stored from chemical reactions
• Thermal energy
• Sound and light
• Wave behavior
• Changes in state of matter with variations in temperature or pressure
• Thermal energy and the transfer of thermal energy

Earth and Space Science
• Features and interrelationships of Earth’s hydrosphere, atmosphere, and biosphere
• Fossils and Earth’s history
• Interactions that shape Earth’s history and future
• History and elements of plate tectonics
• Earth composition and energy flow
• Earth systems interactions
• Rocks and minerals
• Weathering and erosion from wind, water, and ice
• Natural resources
• Natural hazards
• Water movements and changes in land surface and underground
• Renewable and nonrenewable resources
• Uneven distribution of Earth’s resources
• History of natural hazards
• Geological forces that forecast natural hazards

HEALTH AND SAFETY

• Health choices and long-term consequences of choices
• Benefits of, practices for, and personal responsibility for health (including healthy eating, personal hygiene, exercise, stress-management, adequate sleep, social and emotional health, disease prevention, and avoidance of accidents and dangers)
• Interrelationships of physical, mental, and social health
• Impacts of social pressures on physical, emotional, and social health
• Structure, functions, and interdependence of major body systems
• Causes and effects of poor body image
• Eating disorders and their prevention and treatment
• Changes in anatomy during puberty
• Role of hormones in growth, development, and personal health
• Possible physical, social, and emotional impacts of decisions regarding sexual behavior
• Strategies to resist pressures to become sexually active
• Characteristics of healthy relationships and dating behaviors
• Lifelong strategies for identifying and preventing depression and anxiety
• Importance of regular medical assessment
• Myths and facts related to disease transmission and prevention
• Ways the body defends itself against germs
• Communicable, non-communicable, and hereditary diseases
• Evaluation of health products
• Basic safety rules for daily and recreational activities
• Understanding of first-aid procedures and emergency response
• Use, abuse, and effects of medications, tobacco, alcohol, and other substances
• Relationship between tobacco, alcohol, and drugs and unsafe situations
• Preventing the use of tobacco, alcohol, and illegal drugs
• Prevention of and response to deliberate and accidental injuries
• Reasons and ways to avoid violence, gangs, weapons, and illegal drugs
• Skills to identify, avoid, report, and cope with potentially dangerous situations
• Positive and negative characteristics of social groups, gangs, clubs, cliques
• Development of self-confidence, self-esteem, and self-control
• Understand appropriate ways to express emotions
• Positive social interactions with peers, in home, and in the community
• Bullying, alternative behaviors to bullying, and appropriate responses to bullying
• Strategies for resolving conflicts with peers and others
• Getting personal support from family
• How and where to get help in making health decisions
SOCIAL SCIENCE

World History, Medieval, and Early Modern Times
• Disintegration of the Roman Empire
• Byzantine Empire
• Islamic civilizations and trade
• African states in sub-Saharan Africa
• Medieval Chinese and Japanese civilizations
• Feudal system
• Growth and spread of Christianity
• Growth of civilizations in sub-Saharan Africa
• Causes, course, and effects of religious crusades
• Spread of bubonic plague
• Ottoman Empire
• European voyages to and conquests in the Americas
• Rise of the Atlantic slave trade
• Origins, features, and spread of the Renaissance
• Growth of new ways of spreading information
• Reformation and Counterreformation
• Age of Discovery
• Ideas of the Enlightenment
• French Revolution
• Other Revolutions in Europe and the Americas (1775-1848)
• Rise of Imperialism
• Industrial Revolution
• Scientific Revolution
• Rise of democratic thought and institutions
• Physical geography of regions and countries during the medieval period
• Geographic influences on major events in this span of history

ARTS

Note about middle school arts curriculum: Middle-level curriculum often includes and offers experiences and study in a variety of areas in the arts. Some examples are:
• Animation
• Architecture
• Casting
• Ceramics
• Choral music
• Computer graphics and applications
• Construction
• Dance or other creative movement
• Digital arts
• Drama (including mime, storytelling, and technical aspects of theater)
• Drawing
• Film
• Graphic design
• Improvisational music
• Instrumental music
• Metal Sculpture
• Mosaics
• Sculpture
• Textiles and fiber art

In the study and practice of any of the performance or visual arts, students encounter such topics as:
• Skills of watching, listening, and responding to works of art
• Background and elements of particular art form
• Understanding of the processes and techniques of particular forms
• Principles of design
• Vocabulary of particular art forms
• Interpretation, analysis, and evaluation of works of art
• Reflecting on own experiences and creations or performances
• Art history
• Well-known artists and works of visual or performing art form
• Cultural contexts and expressions of art
• Style, materials, and techniques used in a work of art
• Generating questions about a work of art
• Considering messages and purposes of a particular work of art
• Responding orally, in writing, or some other way to works of art
• Contributions of artists to society
• Careers in art
• Discipline and mindset for improving and developing skills in art
• Fostering of creativity and self-expression
• Development of artistic awareness, imagination, perception, skill
• Experimenting with a variety of media, forms, and techniques
• Solving design problems
• Use of digital media and tools for producing, viewing, or responding to art
• Polishing and furthering personal skills in a chosen area of art
• Participation in collaborative discussions about works of art
• Participation in collaborative creation of works of art
• Proper safety procedures for activities in the specific arts

TECHNOLOGY

**General goal for middle-level students:** Use technology within all content areas to collaborate, communicate, generate innovative ideas, create original works, and investigate and solve problems.

• Demonstrating proficient keyboarding skills
• Use of a variety of common applications and productivity tools
• Creation of products combining text, images, sound, music, and video
• Use of spreadsheet and concept-mapping software
• Use of interactive tools to design polls or surveys to gather data
• Making contributions to blogs, wikis, and other collaborative forums
• Gathering weather information and predictions
• Use of online databases or simulation software to interpret and predict trends
• Use of digital collaboration tools
• Increasing knowledge about many cultures through digital content
• Use of online interactive tools to communicate with learners from other cultures
• Communicating with multiple audiences through a variety of formats and media
• Increasing understanding of a local or global issue
• Choosing appropriate digital resources to plan a project or solve a problem
• Choosing appropriate search engines or directories
• Selecting and using appropriate online applications for various purposes
• Selecting appropriate, relevant sources for a purpose or audience
• Analysis and synthesis of information to make decisions or develop solutions
• Assessing the credibility and validity of online sources
• Following fair use rules
• Use of bibliography tools to cite sources from digital sources
• Reporting and sharing of results or solutions
• Exploring ways to receive feedback from multiple, appropriate audiences
• Recognition and avoidance of potential online dangers
• Safe and legal use of online sites and information
• Understanding of privacy issues
• Understanding how data are kept and available publicly
• Understanding safety issues related to sharing personal information online
• Practicing ethical and respectful behavior
• Careful, responsible use and maintenance of digital equipment
• Demonstrating openness to learning new technologies and procedures