

# LANGUAGE ARTS

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

- Cite evidence from text to support analysis of both explicit and implicit messages within the text
- Cite evidence to support analysis of primary and secondary sources
- Find and explain the theme or central idea of a text and details that support it
- Summarize literary and informational or explanatory texts
- Describe how a plot unfolds in a series of episodes
- Analyze how a key event, idea, or character is developed 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
- Compare and contrast characters, settings, events, or ideas in a text
- 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
- Describe overall structure of a passage and its effect on the message
- Compare and contrast the experience of reading a literary passage with viewing or listening to the same text
- Compare and contrast texts in different genres and forms
- Analyze the relationship between a primary and secondary source on the same topic
- Describe how an author develops the point of view of a speaker in a text
- Integrate quantitative or technical information presented in text form with information expressed visually
- Explain how visual and multimedia elements help to develop the topic
- Trace and evaluate the argument and supporting reasons in a text
- Compare and contrast two authors' presentations of the same events
- 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
- Follow agreed-upon rules and preparation procedures for discussions
- Listen and respond to others with focus and care
- Interpret information presented in many media and formats
- Identify an argument, claims, and evidence presented by a speaker
- Present claims or information in logical sequence supported with relevant facts and details

- Use clear diction, appropriate eye contact, and adequate 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 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
- Contribute to collaborative group writing projects
- Conduct short research tasks on a topic through investigation
- Gather information from various sources to answer a question
- 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

- Recognize and follow proper usage of pronouns; correct improper usage
- Form, recognize, and use various verb tenses and appropriate shifts in verb tense
- Correctly use conventions of English when writing (capitalization, punctuation, and spelling)
- Spell grade-level words correctly
- Consult reference materials to check spellings
- Vary sentence patterns for meaning, interest, and style when writing; avoid passive constructions
- 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 (similes, metaphors, idioms, adages, proverbs, etc.) and nuances in words
- 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

- Compute fluently with multi-digit numbers including decimals
- Interpret and compute division of fractions by fractions
- Represent fraction operations with models and equations
- Find common factors and multiples of whole numbers
- Understand positive and negative numbers
- Describe real world uses of positive and negative numbers
- Compare and order rational numbers on a number line
- Understand and find absolute values of numbers
- Identify and explain prime and composite numbers
- Find and graph positive and negative numbers as ordered pairs in a coordinate plane
- Solve real world problems with fractions and positive and negative numbers

### Ratios and Proportional Relationships

- Describe ratio relationships between two quantities
- Understand the concept of unit rate
- Use models to show and solve rate and ratio problems
- Use ratio reasoning to solve problems involving unit pricing and constant speed
- Find and use equivalent ratios to solve problems
- Find a percent of a quantity as a rate per 100
- Solve problems involving finding the whole, given a part and percent
- Convert measurement units when multiplying and dividing quantities

#### Algebra

- Evaluate positive rational numbers with whole number exponents
- Read, write, simplify, and evaluate expressions in which letters stand for numbers
- Identify parts of an expression
- Identify equivalent expressions
- Read, write, and solve one-variable equations
- Read, write, represent (on a number line), and solve inequalities
- Recognize that inequalities have an infinite number of solutions
- Apply the order of operations and properties to operations to solve equations

#### <u>Geometry</u>

- Find areas of right triangles, quadrilaterals, and polygons by composing them into rectangles or decomposing them into triangles or other shapes
- Find volumes of right rectangular prisms (including those with fractional edge lengths) by packing with cubes and applying formulas.
- Draw polygons in a coordinate plane when given coordinates for vertices
- Represent three-dimensional figures using nets made of rectangles and triangles
- Use nets to find surface area of three-dimensional figures
- Solve real world and mathematical problems involving area, surface area, and volume

### <u>Statistics</u>

- Develop an understanding of statistical variability
- Recognize, describe, and formulate statistical questions
- Interpret and create graphical representations of numerical data
- Understand that a set of data has a distribution described by its center, spread (or range), and overall shape
- Summarize and describe numerical data sets

## <u>SCIENCE</u>

### <u>Life Science</u>

- Biological classification systems
- Structure and function of living things
- Cell structures and their functions
- Relationships of cells, tissues, organs, and systems
- Growth and development of organisms
- Single-cell and multicellular organisms
- Sexual and asexual transfer of genetic information to offspring
- Traits, variations of traits, and inheritance of traits
- Animal behaviors that increase odds of reproduction
- Sensory receptors and processes in animals
- Plant reproduction
- Food chains and food webs
- Global temperature trends and effects on organisms
- Ecosystems and ecological communities

#### Physical Science

- Potential and kinetic energy
- Mechanical energy
- Simple and complex machines
- Friction
- Law of Conservation of Energy
- Phases of matter and particle motion
- Density
- Changes in energy
- Energy transfer
- Relationship between temperature and energy

#### Earth and Space Science

- Climate and biomes
- Ecosystems and ecological communities
- Human impacts on Earth systems and habitats
- Water cycles
- Changes and movement of water
- Global movements of water
- Ocean temperatures and currents
- Role of density and salinity in ocean currents
- Weather and climate patterns and what influences these
- Influence of oceans on weather and climate
- Weather predictions
- Global climate patterns and changes

# 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)
- Components of a personal health plan
- Impacts of social pressures on physical, emotional, and social health
- Structure, functions, and interdependence of major body systems
- Changes in anatomy during puberty
- Role of hormones in growth, development, and personal health
- Myths and facts related to disease transmission and prevention
- Ways the body defends itself against germs
- Communicable, non-communicable, and hereditary diseases
- 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
- Basic understanding of first-aid procedures
- Prevention of and response to deliberate and accidental injuries
- Reasons and ways to avoid violence, gangs, weapons, and drugs
- Environmental factors that affect health
- Basic safety rules for daily and recreational activities
- Skills to identify, avoid, report, and cope with potentially dangerous situations
- Practices for responding to emergencies
- Positive and negative characteristics of social groups, gangs, clubs, cliques
- Development of self-confidence, self-esteem, and self-control
- Physical, social, and emotional impacts of decisions regarding sexual behavior
- Strategies to resist pressures to become sexually active
- Respect and consideration for all individuals
- 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
- Skills for meeting people, making friends, and being a good friend
- Getting personal support from family
- How and where to get help in making health decisions

# SOCIAL SCIENCE: The Eastern Hemisphere to the Renaissance

Community and Culture

- Current cultural makeup and features of the regions or the hemisphere
- Cultural contributions of past societies to current societies
- Cultural interactions and issues in the regions of the hemisphere
- Cultural diffusion in the hemisphere
- Detailed study of the culture of one region or country in the hemisphere

### <u>Geography</u>

- Geographical features of the hemisphere
- Patterns of settlement in the hemisphere
- Patterns of movement and migration in the hemisphere
- Interactions of geography, history, and economics in the hemisphere
- Mapping a variety of physical and cultural features of regions or countries
- Detailed study of the geography of one region or country in the hemisphere

#### <u>History</u>

- How archaeologists have learned about past cultures and activities
- First humans in the hemisphere and their ways of life
- Hunter-gatherer societies
- Development of tools and use of fire
- Climate changes and human adaptations
- Patterns of settlement and movement over time
- Neolithic Revolution
- Comparison of the Paleolithic and Neolithic ages
- Agriculture and domestication of animals
- The river civilizations: Mesopotamia, Indus River Valley, Yellow River Valley, and the Nile River Valley
- Major religions and belief systems
- Lasting influences of various belief systems
- The classical civilizations
- Lasting influences of the classical civilizations
- Comparison of the Chinese and Greco-Roman civilizations
- The rise and fall of Roman Empire
- Development of feudalism
- The Byzantine Empire
- Spread of Islam
- The Crusades
- Afro-Eurasian trade and its effects
- The Mongol Empire
- The Middle Ages
- Spread of the Bubonic Plague
- The Renaissance (Early Modern Period)
- Technology and transportation changes
- Detailed study of the history of one region or country in the hemisphere

#### **Economics**

- Use of resources in the earliest settlements
- Economies of the river valleys: products and activities
- Geographical influences on historical events
- Economic developments in early civilizations
- Economic interdependence in the hemisphere today
- Detailed study of the economy of one region or country in the hemisphere

## Citizenship and Government

- Social hierarchies in early civilizations
- Development of political systems in early civilizations

- Roots of democracy in the classical civilizations
- Decentralization of political authority in medieval Europe
- Spread of Christianity and Church in authority in medieval Europe
- Current political features and issues of regions and countries in the hemisphere
- Political cooperation in the hemisphere or its regions today
- Current types of governments throughout the hemisphere
- Detailed comparison of the current governments of countries in one of the regions

## <u>ARTS</u>

**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 forms
- 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

# <u>TECHNOLOGY</u>

## 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