

WORLD BOOK

Typical Course of Study: Grade 10

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
- Cite evidence from text to support analysis of primary and secondary sources
- Identify the theme or central idea of a text and analyze its development
- Identify in detail a series of events described and the relationships among them
- Identify key steps in a text's description of a process related to history or social studies
- Summarize literary and informational or explanatory texts
- Follow a multistep written procedure when performing science or technical tasks
- Compare and contrast treatments of the same topic in several sources
- Analyze how characters develop and how this advances the theme or plot
- Analyze how a text unfolds a series of events and the connections among them
- Determine meanings and effects of words, phrases, or symbols as used in a text
- Analyze how the author's structural choices, order of events, and use of time create effects, such as tension or surprise
- Analyze a particular point of view or experience reflected in a work of world literature
- Analyze how an author transforms source material from an earlier work by a previous author
- Determine author's purpose or point of view and how rhetoric is used to advance that purpose or point of view
- Integrate quantitative or technical information presented in text form with information expressed visually
- Explain how visual and multimedia elements help to contribute to the meaning or tone of a text
- Compare the point of view or claims of two or more authors on similar topics
- Identify and evaluate the argument, reasoning, and evidence in a text
- Analyze and compare various accounts of a subject told in different media
- Analyze significant U.S. (or home country) historical and literary documents
- 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 in group discussions
- Follow agreed-upon rules and preparation procedures for discussions
- Ask questions and respond to others, building on others' ideas

- Integrate into speech preparation diverse sources of information in a variety of formats
- Evaluate a speaker's point of view, reasoning, and use of rhetoric and evidence
- 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
- Adapt speech to a variety of tasks, showing command of formal English

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 technology, including the Internet, to produce and publish writing
- Contribute to collaborative group writing projects
- Conduct short and sustained research projects on a topic through investigation
- Draw and cite evidence from a variety of texts to support analysis
- Assess the credibility and accuracy of sources
- Quote or paraphrase data and conclusions while avoiding plagiarism
- Include evidence from literary or informational texts to support analysis
- 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

- Show a command of conventions of standard English grammar and usage when writing or speaking
- Correctly use conventions of English when writing (*capitalization, punctuation, and spelling*)
- Make effective choices of language for meaning and style when writing or speaking
- 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's meaning
- Use references (print and digital) to determine or verify a word's meanings, or to find its pronunciation or part of speech
- Interpret and use figurative language 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

Geometry

- Definitions of angle, circle, point, distance, line segment, line, perpendicular and parallel lines
- Rotations, reflections, and translations of lines in the plane
- Transformations in terms of vertices, sides, angles, circles, lines, parallel lines, line segments, and perpendicular lines
- Rotations, reflections, and translations of polygons
- Sequence of transformations to carry one figure into another
- Angles and sums of angles created when parallel lines are cut by a transversal
- Congruence of two figures
- Criteria for triangle congruence
- Proving geometric theorems about lines, angles, and parallelograms
- Geometric constructions and bisections (including digital)
- Similarity
- Pythagorean Theorem and its converse
- Trigonometric ratios in right triangles
- Solving problems with trigonometric ratios in right triangles
- Trigonometry in general triangles
- Similarity of circles
- Elements of circles and relationships between them
- Constructing inscribed and circumscribed circles of a triangle
- Constructing tangents
- Arc lengths and areas of circle sectors
- Applying theorems about circles
- Deriving equations of parabola, ellipse, hyperbola, and center
- Proving theorems algebraically using coordinates
- Using coordinates to prove simple geometric theorems algebraically
- Proving slope criteria for parallel and perpendicular lines
- Finding the bisecting point on a line segment
- Computing perimeters and areas
- Explaining and using formulas for circumference, circle area, and volume of a cylinder, sphere, cone, and pyramid
- Cavalieri's principle
- Shapes of two-dimensional slices of three-dimensional objects
- Geometric concepts in describing objects, modeling situations, and solving design problems
- Solving real world problems with geometric concepts and formulas

SCIENCE

Earth Science

- The universe and its stars
- The sun and its chemical processes
- Stars, their light, brightness, and movement
- Electromagnetic radiation
- Structure of and forces in the solar system
- Movements of objects in the solar system

- Patterns of apparent motion of the sun, moon, and stars
- Sun, Earth, and moon relationships
- Moon phases and tides
- Theories of Earth's origin
- Earth's history
- Geologic time, rock strata and the fossil record
- Radioactive dating
- Earth systems and their interactions
- Plate tectonics and large-scale interactions
- Structure and properties of Earth
- Minerals, rocks, and soil
- Changes in Earth's surface
- Role of water in Earth changes
- Ocean features and movement
- Earth's atmosphere
- Weather and climate
- Changes in climate
- Earth's natural resources and resource use
- Renewable and nonrenewable energy sources
- Human impact on Earth systems
- Environmental concerns and conservation

HEALTH AND SAFETY

- Gaining, analyzing, and applying health information
- Knowledge about and use of available health services
- Health choices and long-term consequences of choices
- Benefits of, practices for, and personal responsibility for health
- Personal health profile and plan
- Interrelationships of physical, mental, and social health
- Impacts of social pressures on physical, emotional, and social health
- Marketing and advertising effects on health behavior
- 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
- Reproductive processes; healthy development of fetus
- Consequences of sexual activity
- Strategies to resist pressures to become sexually active
- of healthy relationships and dating behaviors
- Lifelong strategies for identifying and preventing depression and anxiety
- Myths and facts related to disease transmission and prevention
- Laws relating to tobacco, alcohol, drugs, and other controlled substances
- Treatment options for drug and other addictions
- 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 controlled substances

- Relationship between tobacco, alcohol, or illegal drugs and such unsafe situations as date rape, sexually-transmitted disease, and drinking and driving
- 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 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
- 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

SOCIAL SCIENCE

World History: The Modern World

- Influences on the development of western political thought
- Glorious Revolution of England
- American Revolution
- French Revolution
- Influences of the revolutions of 1688-1799 on government and individual liberty
- The Industrial Revolution in Europe and the United States
- Emergence of Romanticism
- Global changes brought about by European imperialism
- Causes and course of World War I
- Effects of World War I
- Russian Revolution
- Totalitarian governments after World War I
- German, Italian, and Japanese drives for empire in the 1930s
- United States isolationism prior to World War II
- Rise of the Nazi party in Germany
- The Holocaust
- Causes and course of World War II
- Consequences of World War II
- International developments after World War II
- Causes, course, and effects of the Cold War
- The Truman Doctrine and the Marshall Plan
- The Chinese Civil War and upheavals in China
- Nationalism in the Middle East
- Establishment of Israel
- Collapse of the Soviet Union and end of the Cold War
- Work of the UN, SEATO, NATO, and the OAS
- Globalization and the spread of capitalism
- Effects of information, technological, and communications revolutions
- Connectedness and cooperation of countries in the world economy
- Current conflicts in the modern world
- Global issues in the modern world

- Features of increasing globalization
- Revival and maintenance of traditional cultures in the face of globalization
- Purpose, roles, and work of some key international organizations
- Examples of global interdependence and cooperation

ARTS

Note about high school arts curriculum: *High school curriculum generally requires some sort of study and credit in the arts. Most schools offer 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
- Jewelry-making
- Metal Sculpture
- Mosaics
- Painting
- Photography
- Printmaking
- Sculpture
- Textiles and fiber art

In the study and practice of any of the performance or visual arts, students encounter such topics and sharpen such skills as:

- 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

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- Reflecting on the 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 high school 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
- Understanding of operating system tools, applications, and storage devices
- Use of a variety of common applications and productivity tools
- Creating products combining text, images, sound, music, and video
- Creating and publishing stories, games, animations, problems, and solutions
- Creating Web pages
- 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 digital collaborative forums
- Use of online databases or simulation software to interpret and predict trends
- Increasing knowledge about many cultures through digital content
- Communicating with multiple audiences through a variety of formats and media
- Increasing understanding of a local or global issue
- Researching and using information fluently
- Choosing appropriate search engines, directories, and online applications
- 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
- Use of bibliography tools to cite sources from digital sources
- Reporting and sharing results or solutions
- Exploring ways to receive feedback from multiple, appropriate audiences
- Demonstrate understanding and avoidance of potential online dangers
- Understanding health hazards of frequent technology use
- Demonstrating safe and legal use of online sites and information
- Use of passwords, virus prevention, and other protective procedures
- Understanding risks of social networking sites; safe sharing of personal information online
- Understanding privacy issues and how data are kept and available publicly
- Practicing ethical and respectful behavior online
- Careful, responsible use and maintenance of digital equipment
- Demonstrating openness to learning new technologies and procedures

