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
• Responding orally, in writing, or some other way to works of art
• 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