



Waldorf School of Lexington

Grade Seven Curriculum Standards

Overview

History lessons explore the dramatic shift in human consciousness from the concept of an earth-centered universe to that of a planetary system with the sun at its center. Students study biographies of people who struggled with existing authorities and social institutions to bring about the changes that led to the birth of modern art and science in the Renaissance. They sail with explorers out of known lands into unknown territory.

Art and science flourish in the seventh grade classroom as they did in the Renaissance. Students enter into perspective drawing and study the human body along with masters Leonardo, Michelangelo, and Raphael. Physiology lessons cover digestion, circulation, respiration, and reproduction. Discussions on topics of nutrition and hygiene raise students' awareness to the benefits of positive body image and healthy life style.

In astronomy main lessons, students examine the solar system, learn to recognize constellations, and study star development from nebulae to black holes. First classes in chemistry examine combustion. Students see the transformation of substance and notice the remaining ash. In experiments, phenomena are presented, apparatus introduced, and precautionary procedures followed.

Seventh grade physics classes may cover a number of topics. Studies in acoustics and optics may be continued from grade six, electricity and magnetism introduced. The main theme in seventh grade physics, however, is the study of mechanics. As seventh graders experience gravity in their own bodies they learn that it can be manipulated to get work done. They examine simple machines such as the lever, pulley, wheel and axle, and inclined plane. They see how the principles working in these mechanical devices also work in the human body.

In mathematics, students are introduced to negative numbers and algebraic expressions and balance equations. The study of geometry continues with parallel lines, angles, similar figures, and area.

As seventh graders become increasingly aware of the life of feeling stirring within them, they become more capable of describing it in writing. It may appear in assignments that allow for an imaginative participation in historical events or in a main lesson block devoted to creative writing. Students are challenged to write accurate descriptions of what they observe without the tint of their attachment to the topic. English skills classes focus on essay writing, creative writing, grammar, and research skills.

Daily life in the seventh grade has its moments of turbulence and discovery. As students assert their independence, they look for examples of earnest striving in the adults around them. Teachers guide seventh graders toward the recognition of their own talents and capacities.

Grade Seven Skills by Subject Area

Work Habits and Attitude

To be achieved by graduation:

- Assume responsibility for self and work
- Maintain an organized assignment planner and complete homework assignments in timely fashion
- Work independently and quietly with focus on a task for up to 45 minutes
- Work collaboratively and do fair share of the task
- Work independently and collaboratively with minimum adult intervention
- Work neatly with desire to do best work
- Respect teachers, classmates, property, and materials
- Keep personal and school belongings well organized
- Have appropriate materials needed for class
- Be prepared and ready for class on time
- Maintain a positive attitude
- Work constructively with feedback from teachers and classmates
- Support classmates and the group
- Practice social inclusion and be included in social activities
- Use group process and discussion to work through social issues and class projects
- Participate in class discussion
- Participate in choral recitation and singing

Language Arts

In grade seven, students should be able to:

- Show acquisition of verbally presented material through artistic rendering, daily recall, self-generated reports and essays written for main lesson books
- Recite poetry, read prose both individually and in group
- Speak clearly with good diction, proper inflection, fluency
- Develop confidence to stand before classmates in oral presentation of reports
- Read for information
- Read for sustained length of time, with good comprehension and recall
- Generate writing that reflects sequential organization, organized ideas, and complete thoughts with appropriate syntax
- Use capitalization, punctuation, and parts of speech correctly
- Use active/passive voice
- Use subordinate clauses
- Write compositions in expository, narrative, and descriptive styles
- Use dictionary and thesaurus on regular basis
- Take dictation with ease, use spelling rules, sight vocabulary and phonetics to spell unknown words
- Continue sentence diagramming

- Develop appreciation for poetry through reading and writing
- Express contrasting moods
- Use subjunctive mood (might be introduced in grade six)
- Generate research projects: use library, note-taking skills, outlines, writing and editing to arrive at final draft
- Practice note-taking
- Summarize main lesson content in writing for main lesson books
- Demonstrate reading-for-information skills in research projects, class discussion, and mastery of material
- Acquire appreciation for the English language through reading a variety of literature in different artistic styles
- Read aloud with expression, fluency
- Recall what was read in discussion, book reports, and summaries

English Skills Class

By the end of grade seven, students should be able to:

- Use basic keyboarding and word processing skills to type papers
- Use library and internet resources for research: books, digital catalogue, and online databases
- Summarize larger works in students' own words
- Write a research paper with appropriate citations and bibliography
- Write stories that build to a climax and resolve the plot, using both first and third person narrative, with focus on detail and description
- Understand and use analogies
- Understand and use vocabulary and etymology with focus on Latin and Greek roots
- Write literary analysis essays on reading material (stories, books, and poetry) identifying and discussing mood, tone, and characterization, and types of conflict
- Identify metaphor and simile as well as use in their own poetry
- Use punctuation correctly, including serial commas, colons, and semi-colons
- Identify and correctly use:
 - Adverb and adjective phrases
 - Conditional/subjunctive tone; declarative, interrogative, imperative, and exclamatory sentences
 - Main and subordinate clauses
 - Non-essential clauses
 - Appositives

Mathematics

By the end of grade seven, students should demonstrate proficiency in the following areas:

- Number sense with more challenging numbers (puzzles, patterns, etc.)
- Measurement conversions: U.S. and metric systems
- Historical background of the metric system

- Percentage: basic problems, percent increase/decrease, simple and compound interest, word problems
- Business math skills
- Ratio and proportion: set up ratio problem, find the total, similar figures, rate problems
- Algebra:
 - Positive and negative numbers
 - Using four processes on positive and negative numbers
 - Equations: the golden rule
 - Translation of verbal expressions into algebraic expressions
- Geometry:
 - Area of parallelograms, trapezoids, non-right triangles, circles
 - Angle theorems: arising when two parallel lines are cut by a transversal, angles in a triangle
 - Pythagorean Theorem: visual proofs, calculation of missing sides of triangles
- Word problems with applications

Students recognize more complex number patterns, discuss and understand alternate solutions to a problem, and work independently with a partner or in small groups.

Math Skills Class

By the end of seventh grade, students should be proficient in following topics:

- Familiarity with the use of and conversion between U.S. measurements and metric measurement
- Use of ratios and proportion, including geometry
- Understanding and use of percentage and compound and simple interest.
- Familiarity with rate problems
- Understanding of Euclidean geometry, including Pythagorean Theorem, area and perimeter of quadrilaterals and triangles, and angle theorems including hands-on geometric constructions
- Familiarity with algebraic topics including calculations with integers, order of operation, evaluating and simplifying algebraic expressions by combining like terms, and the “golden rule of equations”
- Understanding of statistics and probability
- Test-taking skills, test preparation, and self-correction

Science

In grade seven, students should achieve a working knowledge of the following:

- Physics
 - Basic Acoustics: ratio for tones of the scale
 - Optics: reflection/refraction
 - Simple machines: lever, pulley, wheel, inclined plane, wedge and screw
- Inorganic chemistry

- Chemistry of a candle
- Combustion: as observed in the burning of a variety of materials
- Role of oxygen and carbon dioxide in human, plant, and animal bodies
- Properties of acids and bases, salts
- Indicators
- Lime cycle
- Physiology
 - Respiration, digestion-nutrition, heart-circulation, reproduction
 - Habits that support good health
- Astronomy
 - Solar system and sun
 - Planets
 - Biography of a star
 - Lunar cycles
 - Cosmic phenomena
 - Recognition of constellations
 - Seasons of the year (earth in relation to sun)
 - Historical perspectives on the universe

History

In grade seven, students achieve working knowledge of the following:

- Age of Exploration: Marco Polo, Columbus, Magellan (or others at teacher's discretion)
- The Renaissance period in northern and southern Europe, including notable personalities of the time in politics, art, and science
- The Reformation, including biographies of leading historical figures

Geography

In grade seven, students should:

- Understand geographical regions of the world/contrasts in landscape and climate
- Understand latitude and longitude, relationship of longitude to time
- Explore geography of South America (or Europe, at teacher's discretion), physical and political boundaries, capitals, cultures, and livelihood of peoples

Foreign Languages

Conversation is generated between students and with the teacher. Correspondence with a pen pal is encouraged. Reading material serves as a basis for the creation of dialogues, debates, and conversations. By the end of the year, students should:

- Develop fluency of speech (correct pronunciation) and written expression
- Be able to express themselves clearly in simple sentences in a range of everyday situations
- Read literature and write more complex text with assistance (e.g., summaries, dialogues, opinions, feelings)
- Work with dictionaries
- Memorize songs, plays, and longer poems

- Demonstrate cultural knowledge through presentations and research projects
- Know tenses (present, past, future)
- Have acquired a firm grasp of sentence structure

Instrumental Music

In grade seven, students should:

- Be able to play major and minor scales in keys with up to three flats and sharps
- Understand how to interpret key signatures in both sharp and flat keys
- Understand the relationship between major keys and their relative minor keys
- Be able to sight read intermediate level orchestral music with few mistakes
- Understand the characteristics of the three types of minor scales
- Be able to execute dynamics and musical gestures within the ensemble setting
- Recognize several important composers and their contributions to music
- Perform at whole school assemblies and concert evenings

Chorus

In grade seven, students should be able to:

- Demonstrate facility singing in multiple parts
- Continue to develop sight singing in parts
- Participate in choral ensemble
- Explore songs in diverse historical and cultural contexts
- Participate in arts evenings and concerts in concert dress

Art

In grade seven, students should be able to:

- Experiment with light and shadow exercises
- Discover and construct accurate perspective drawings
- Practice veil painting, wet on dry, waiting for successive layers of light pigment to dry before applying the next veil
- Draw portraits and the human figure
- Participate in a dramatic production
- Model with clay

Handwork

By the end of grade seven, students should be able to:

- Strengthen and confidently master hand-sewing skills, such as backstitch, running stitch, quilt stitch, and the correct use of tools such as a thimble
- Study quilting, its history, and biographies of quilters
- Make a pattern for a patchwork piece for a pillow or wall hanging
- Pin, baste, piece, and quilt
- Sew in zippers
- Apply the necessary math skills for calculating the size of quilt pieces (fractions)

Woodwork

By the end of grade seven, students should be able to:

- Practice proper care and develop respect for tools
- Work within prescribed safety rules
- Demonstrate mastery of measuring, marking, and layout of materials
- Apply acquired skills to assemble and sculpt a ship's hull form
- Understand history and importance of shipbuilding
- Master basic nautical knot-tying

Eurythmy

In grade seven, students should be able to:

- Experience quality of planets through gesture, music, form, working in small groups
- Continue work with musical intervals: develop human body as an instrument through attention to posture and gestures
- Balance rod on head, continue practice of threefold stepping
- Work with forms: spiral, pentagram (all move at once)
- Work with dramatic verse
- Perform on stage

Physical Education

In grade seven, students should be able to:

- Play within field boundaries
- Develop conscious awareness of space around them
- Do Bothmer gymnastic exercises with accuracy
- Demonstrate strength and endurance in both individual and team sports
- Practice rod fencing and archery
- Develop basic juggling skills
- Participate in all types of cooperative games
- Show good sportsmanship