



# Waldorf School of Lexington

## Grade Six Curriculum Standards

### Overview

Sixth grade is a year of transition from childhood towards adolescence. Rapid physical growth is accompanied by corresponding brain development, which quickens the unfolding of abstract thinking.

The sixth grade curriculum offers students the opportunity to use their developing understanding of causal relationships and to sharpen skills already developed in previous grades. Physics is introduced, a first experience with experimental science. Experiments provide students with a direct experience of the phenomena studied. The sixth graders are then challenged to exercise objectivity in recording their observations. They discover for themselves the natural laws underlying their observations. Often this first understanding of the natural world is accompanied by a renewed sense of wonder. Sixth grade physics includes an introduction to acoustics, optics, and heat. Some sixth grade classes may also begin studies of magnetism and electricity. Earth science is introduced.

In the flux of change that accompanies the onset of puberty, sixth graders can appreciate the law and order of early Rome, an order that was ultimately only as solid as the people who were willing to work and sacrifice to support it. History lessons continue with the fall of the Roman Empire and the movement of folk populations across Asia and Europe. In medieval Europe, order is regained for a time through the feudal system and the emergence of monastic life. The year ends with a picture of the impending dissolution of feudalism through the meeting and clashing of cultures in the Crusades and the formation of towns, where trades-people organized themselves into guilds.

In mathematics, students are introduced to percentages and use their mastery of percentage in business math. Percent, increase, and decrease is relevant to sales and profits as well as to problems of interest and money lending. Various economic systems may be introduced and discussed. The class teacher continues to introduce new topics; a specialist math teacher reviews and reinforces math skills, beginning with a comprehensive review of everything learned in previous grades and supporting the work of the class teacher throughout the year.

Geometry is introduced in sixth grade. Drawings previously developed freehand are now implemented with a compass and straight edge. Precision required in the execution of geometric constructions and shading patterns often inspires an incremental leap in the quality of sixth grade main lesson books in general, as more attention is paid to shading, borders, illustration, and handwriting. Geometry classes familiarize students with the language and concepts of angles, polygons, and circles.

Sixth graders continue to improve their writing as they more consciously grasp the structure of language. They can organize ideas sequentially. Their writing reflects

organized ideas with sequential organization. Main lessons in science challenge them to write accurate descriptions of what they observe while in history classes they have the opportunity to enter imaginatively into an event from the past. An English Skills class offers students additional practice in writing skills and grammar.

Sixth graders gradually work toward a new relationship with teachers, one that is based on mutual interest in the subject matter. As the authority of the teacher becomes more grounded in his mastery of lesson content, students are more motivated to be more self-aware and self-responsible. This is the time to reinforce good study habits: organization of materials and assignments, time management, preparation and attention in classes. While social issues become more complex, sixth grade classmates know each other intimately. Students have the potential to work cooperatively while expanding their capacities for independent thought and achievement.

# Grade Six 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 six, 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
- Build vocabulary
- Participate in class discussions
- 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
- Decipher new words using stable vocabulary base and contextual cues
- Achieve fluency in oral reading—read with inflection and attention to punctuation cues and sentence structure
- Read for sustained length of time
- Demonstrate good comprehension and recall of what has been read
- Use well-formed handwriting (could be cursive, calligraphy, or print), and organize layout of writing on the page
- Develop simple outlines that bring out the main idea and its supporting details

- Use appropriate sentence construction, sequential paragraphs, and good structure (initial sentence, supporting material, transitions, and closure) in independent writing assignments
- Consistently use rules for capitalization and punctuation
- Use parts of speech correctly
- Use complex sentence structure using adjective phrases and clauses, subordinate conjunctions, etc.
- Begin to diagram sentences
- Continue building spelling skills, practicing rules, taking dictations
- Edit for spelling and grammar mistakes, clarity, and regrouping of sentences for efficiency—working through several drafts to final copy

## English Skills Class

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

- Correctly identify parts of the sentence: subject, predicate, direct object, prepositional phrases
- Use apostrophes for contractions and possessives
- Construct sentences that avoid run-ons and sentence fragments
- Identify main and subordinate clauses
- Identify and construct simple, compound, and complex sentences
- Correctly identify and use objective and subjective tones
- Correctly use paragraph structure: topic sentences, supporting sentences, concluding sentences
- Use graphic organizers to plan essays
- Outline and write five paragraph expository essays
- Use simple rhyme and rhythm in poetry
- Write and edit newspaper articles; organize and edit newspaper with a group
- Free-write in journal

## Mathematics

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

- Speed tests
- Exponents and roots (introduction)
- Divisibility
- Factors of a number
- Prime factorization
- Division, long and short, rounding and estimating
- Fractions: use all four processes, expansion/reduction of fractions, conversion between mixed numbers and improper fractions
- Decimals: use all four processes
- Fraction/decimal/percent, equivalents, conversions
- Percents: determining a certain percent of a given number

- Percent increase and decrease
- Use of fraction and decimal method to determine a percentage
- Quick simple calculation of percents (10%, 20%, 50%, 75%, 100%, 200%)
- Word problems: analyze problem to determine the use of appropriate operation and convert to equations
- Geometry introduced:
  - Precise construction with ruler and compass
  - Bisection of a line segment, angle, arc
  - Division of a circle
  - Parts of a circle: radius, diameter, secant, tangent etc.
  - Angles: obtuse, acute, straight, right
  - Triangles: scalene, right, isosceles, equilateral
  - Terminology for quadrilaterals and other polygons
  - Area and perimeter of rectangle, square, and right triangle
- Introduce Statistics: calculating mean, average, median; mode for sets of data; analyzing line and bar graphs
- Introduce Business math: credit, interest, tax, profit

## Math Skills Class

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

- Finding equivalent fractions, reduce fractions, work with the four operations, and solve word problems
- Estimating and checking their written work
- Familiarity with prime numbers, square numbers and square roots and developing number sense and different notations
- Problem solving through mathematical reasoning using mental math, speed sheets, short cuts, logical problems, and word problems
- Familiarity with percentage and ability to convert from decimals and fractions into percent as well as business math
- Developing a unified understanding of number and ability to recognize fractions, decimals, and percent as different representations of rational numbers
- Application of proportional relationships
- Familiarity with statistical terminology and processes
- Ability to manage their homework folder and coursework and accuracy in written work
- Test-taking skills, test preparation, and self-correction

## Science

In grade six, students are expected to achieve a working knowledge of the following:

- Geology
  - Continents and plate tectonics
  - Volcanoes

- Rock cycle (igneous, sedimentary, metamorphic rocks)
- Composition of the earth
- Minerals, crystals, gems, metals
- Physics
  - Acoustics: the relationship of pitch to size and volume, conduction of sound through various media, sound and form
  - Optics: nature of light, color/prisms, afterimages
  - Thermodynamics: expansion/contraction, conductivity, transference of heat (conduction, convection, radiation), Fahrenheit and centigrade, friction, changes in volume (solid, liquid, gas)
  - Magnetism: lodestone, positive /negative poles, attraction/repulsion, magnetic fields (of earth), types of magnets, movement of magnetic force through various substances

## History

In grade six, students are expected to achieve a working knowledge of the following:

- Roman history, the founding of Rome, the growth of the empire, the Pax Romana, everyday life in Roman Times
- Roman history through biographies, for example: Julius Caesar, Jesus, Mohammed
- Life in the Middle Ages: feudal system, monastic life, building of cathedrals, trades and guilds

## Geography

In grade six, students will:

- Work with latitude and longitude (maybe in grade seven)
- Explore geography of Europe or South America: know physical and political boundaries, physical features, countries, and cultures
- Have some understanding for culture and livelihood of the peoples in relation to the physical attributes of the land

## Foreign Languages

In sixth grade there is an extensive review of the language to provide a firm foundation for future progress in the acquisition and practical use of the language. Dialogues and conversation arising from reading materials are emphasized from this point forward.

By the end of the year, students should:

- Be able to speak more freely about themselves and their environment
- Become more fluent in reading text used in class
- Be able to take dictations
- Practice writing longer paragraphs (e.g., letters, summaries)
- Be able to speak more freely on what they have read in class

- Recognize and give examples (e.g., from a text) for the areas of grammar covered so far (regular and some irregular verbs)
- Understand the grammatical terminology being used
- Demonstrate geographical knowledge of countries where the language is spoken
- Memorize plays and longer poems

## Instrumental Music

By the end of grade six, students should:

- Be able to play scales in keys with up to two flats and two sharps over two octaves
- Understand both major and minor scales and be able to identify whether a piece is written in a major or minor key
- Understand the concepts of dynamics, articulation in music, and musical phrasing
- Begin to place musical pieces in their historical contexts
- Be able to sight read simple music in an ensemble setting (mistakes are expected)
- Perform at whole school assemblies and concert evenings

## Chorus

In grade six, students should be able to:

- Sing in two or three parts
- Continue to develop sight-singing abilities, including sight singing in major and minor keys
- Learn to recognize intervals in written music
- Learn multiple parts of a piece
- Explore pieces in historical, geographical context, i.e. Gregorian chants, Mummer's play, European or South American folk songs
- Participate in arts evenings and concerts in concert dress

## Art

In grade six, students should be able to:

- Develop understanding of the color wheel in painting exercises
- Bring three-dimensionality onto the paper through light and dark
- Master shading techniques in geometric drawings
- Use all techniques mastered to enhance main lesson books, for example: drawing, shading, borders
- Model with clay three-dimensional objects related to the curriculum
- Participate in a dramatic production

## Handwork

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

- Master a variety of sewing stitches (back stitch, running stitch, mattress stitch, whip stitch)

- Experience the transformation of a flat pattern into a three-dimensional shape
- Review and strengthen crochet skills by crocheting a cap for doll hair
- Complete a Waldorf-style doll
- Execute knowledge of construction and sewing techniques by making doll clothes

## Woodwork

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

- Practice proper care and develop respect for tools
- Work within prescribed safety rules
- Demonstrate mastery of basic carving techniques
- Integrate use of new tools
- Transform a design concept to a three-dimensional form

## Eurythmy

In grade six, students should be able to:

- Explore gestures for sounds
- Begin listening to musical intervals, remembering gesture and tone
- Work with geometric forms, using copper rods in frontal orientation
- Practice more difficult concentration exercises with stepping/clapping
- Explore spatial relationships with the use of copper rods
- Practice the harmonious 8 exercise—cross, sculpt form, step rhythms; moving together in parallel, mirror formation
- Perform on stage

## Physical Education

In grade six, students should be able to:

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