

WHITEFISH BAY SCHOOL DISTRICT

Parent Curriculum Overview
Grade 5



SCHOOL DISTRICT OF WHITEFISH BAY
1200 E. FAIRMOUNT AVE
WHITEFISH BAY, WISCONSIN
www.wfbschools.com

Parents/Guardians of Whitefish Bay Elementary School Students,

Education in Whitefish Bay Schools is a partnership that includes the school, the family and the community. As partners in the education of your children, we want you to be informed about what your child will be learning during this school year. The purpose of this Curriculum Overview is to provide families with a general overview of the core instructional program at each grade level.



Curriculum in the elementary level is designed to provide students with a strong foundation in basic knowledge and skills that will make it possible for them to think creatively and critically as they progress through the K-12 system. To these ends, district curriculum is carefully established by committees composed of the professional staff and community representatives. All curricula undergo comprehensive review and are formally updated every six years through the district curriculum cycle. Student performance data on a variety of classroom, local, state and national assessments are analyzed on an annual basis to ensure students are progressing toward the district's academic standards.

These standards challenge students to learn a broad range of content knowledge and skills while developing their ability to process that knowledge and use those skills. This balance between content (information and knowledge) and process (problem solving and real-world application) may be a shift in approach to the education you received when you were in primary school, yet should set the foundation for future learning in the 21st century.

The methods and instructional strategies in our classrooms bring the curriculum to life. First, we embrace Flippen's saying, "Once you capture a child's heart, you have his mind." Teachers develop trusting relationships with students, and amongst the students in the classrooms, in order to maintain a nurturing climate wherein learning will flourish. Reading and mathematics instruction are offered in flexible, large and small group settings. Hands-on learning activities develop conceptual understanding of mathematics, science and social studies. Students in grades first through fourth will have an hour of foreign language instruction each week. Strong programs for art, music and physical education, along with the integration of technology as a learning tool, are other important components that contribute to the vitality of the elementary-level program.

While teachers strive to meet the needs of all students in the classroom, some students benefit from additional assistance or challenge. Academic support programs are available in reading and math. Similarly, *Beyond* programming exists for students whose need for academic challenge far exceeds that of the regular classroom.

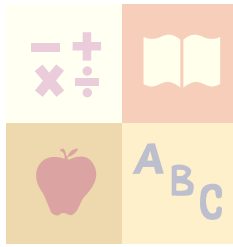
If you would like more information about the district curriculum, log on to www.wfbschools.com and select the district office link and then select director of instruction. On this website you will find links to curriculum overview documents, learning standards, and resources for parents. After you have reviewed these resources, if you wish to obtain additional information, please contact your child's teacher, your child's principal, or by contacting the Instruction Office at 963-3927.

As you support your child's academic and intellectual growth this year, encourage him or her to enjoy learning, take risks, confront misunderstandings, put forth diligent effort to develop new skills, and ask an abundance of questions. A tenacious curiosity, willingness to confront the unknown, and an ability to see challenge as an opportunity for growth will provide rewards for a lifetime.

Sincerely,

Laura Myrah
Director of Instruction
School District of Whitefish Bay

Grade 5 Mathematics



The purpose of mathematics education is to build the high levels of mathematical skills, processes, thinking, and problem solving necessary to meet the challenge of a changing technological society.

The fifth grade study of mathematics is designed to develop understandings of mathematics and mathematical processes, and includes problem-solving, comparison, and estimation, as well as basic skills and computation.

Learning with Everyday Math, by the University of Chicago, students will explore exciting mathematical concepts throughout the school year. Students record their work in the consumable student Journal. This will involve teacher-led study, group work with teacher guidance, and hands-on learning activities done in pairs or individually. Materials include the textbook, an array of mathematical tools and manipulatives, as well as games.

For resources to support your child's learning of mathematics using the Everyday Mathematics curriculum, see the Everyday Mathematics parent handbook that was distributed to your family when your child was in first grade. Additionally, all 3-5th grade students are provided with a Student Reference Book with information on key skills and strategies that are used throughout the curriculum.

Starting with the 2006-07 school year, the Everyday Mathematics curriculum is augmented with resources from *Problem Solvers* and *Thinking with Numbers*. These programs are designed to assist students in their efforts to understand and use basic facts and apply their mathematical understanding to solve complex word problems.

In fifth grade, students will know and understand at a grade appropriate level:

- practical applications of addition, subtraction, multiplication, and division.
- the use of several strategies when solving problems.
- how to collect and organize data in charts, graphs and written format.
- accurate computation of addition, subtraction, multiplication and division of fractions.
- mixed numbers and improper fractions.
- measurements in standard and metric forms.
- geometry concepts relating to the shapes and sides of figures, and congruence vs. similarity.
- multiplication and division of decimals.
- ratio, percent, and probability.
- volume, area and perimeter.



Grade 5 Language Arts

Through the Reading/Language Arts Program, all students will read, write, speak and listen to acquire, clarify, apply and communicate knowledge and ideas as life-long learners.

In grade, students will know and understand at a grade-appropriate level:

Word Study/Vocabulary:

- Uses sounds, including vowels, consonants, blends, consonant and vowel patterns, blending and inflectional endings for decoding words
- Relates words and concepts to aid in spelling and word knowledge by using:
 - Context clues
 - Specialized vocabulary
 - Greek and Latin prefixes, suffixes and roots
 - Multiple meaning words
 - Figurative language
 - Derivations and relations
- Determines the meaning of words using a glossary, dictionary and thesaurus
- Decodes unknown words with strategies including: context clues, phonetic analysis and spelling patterns

Spelling:

- Employs useful spelling strategies
- Transfers spelling strategies to written work
- Correctly spells frequently used words
- Uses reliable English spelling patterns

Reading/Comprehension:

- Selects reading material based on his/her personal criteria and interests
- Uses text and graphic organizers to increase comprehension
- Adjusts speed of reading to suit purpose and difficulty of the text
- Applies strategies to monitor comprehension such as:
 - Makes connections to activate schema
 - Asks questions
 - Infers
 - Uses fix it strategies
 - Visualizes
 - Makes/revises predictions
 - Synthesizes
 - Determines important ideas/main idea
- Recognizes different types of fiction/nonfiction
- Summarizes information

Writing:

- Uses grammatical and mechanical conventions in writing
- Composes a multi-paragraph essay
- Writes for a variety of purposes
- Uses steps in the writing process: prewriting, drafting, revising, editing and publishing
- Uses descriptive language and a variety of sentence structures
- Reflects and evaluates his/her own writing
- Evaluates, creates, and edits different types of multimedia
- Uses computer to acquire, organize, analyze and edit written material

Speaking/Listening:

- Communicates and expands ideas through speaking and listening
- Follows rules of conversation and makes contributions to discussions
- Listens to classmates and responds to a variety of media
- Makes oral presentations that are clear and concise



Grade 5 Science

Students in Whitefish Bay Schools will develop the scientific knowledge skills, and attitudes that enable them to make informed use of science in their lives.

Students work in a lab based, inquiry enriched environment through a variety of experiments and projects to attain first-hand knowledge of scientific concepts and ideals:

- Students manipulate small catapults called flippers to investigate the variables that contribute to the highest and longest flips of objects. They conduct controlled experiments and graph their results.
- Students experiment with variables that do and do not affect the behavior of pendulums. The students graph their results and use their graphs to predict the behavior of additional pendulums.
- Students construct a fleet of paper-cup boats and discover how many passengers (pennies) each will hold before sinking. The variables of boat depth and arrangement of passengers are explored.
- Students construct rubber-band powered airplanes and fly them on a line. They experiment with a number of variables to see how each affects the distance the plane travels.
- Students are introduced to fats in the human diet and conduct a fat search using the brown paper technique.
- Students use yeast metabolism as an indicator of the presence of sugar in foods. They experiment with different kinds of cereals and relate the amount of gas produced by yeast to the amount of sugar in the cereal. They use the sugar test to test mystery foods for the presence of sugar.
- Students use baking soda as an indicator of the presence of acid. In a closed system, the volume of gas produced by the acid/baking soda reaction is related to the concentration of acids in the sample. Students test foods for general acid content and for a specific acid, vitamin C using indophenol.
- Students learn that foods are often different combinations of different kinds of nutrients. They assemble hypothetical lunches and analyze them in terms of their fat, carbohydrate, and protein content. They calculate the number of calories contributed by each group and assess the nutritional value of their lunches.
- Students are introduced to levers as devices that help us lift weight or overcome resistance. Students investigate the fulcrum, effort and load of one kind of level (class-1) and conduct experiments with a spring scale to discover the relationships between the parts of lever systems. Students draw and graph their results.
- Students investigate and diagram class-1, class-2 and class-3 level systems. They investigate common tools to determine how the tools apply levers.
- Students are introduced to a second simple machine and discover how to set of single-fixed and single-movable pulleys to lift a load. They use a scale to quantify effort with single pulleys. They go on to set up and diagram multiple-pulley systems.
- Students investigate four pulley systems. They record data on each system. They graph and determine the relationship between the number of ropes pulling on the load and the effort needed to lift it.
- Students observe the changes in shadows over a day and relate the position of the sun in the sky to the shadow that is cast. They make and use a shadow tracker to systematically monitor the position of the sun.
- Students set up an investigation to find out what happens when solar energy shines on four earth materials, water, sand, dry soil and wet soil. They relate the differences in temperature change to the properties of the materials.
- Students investigate ways to capture solar energy to heat water in containers and zip-bags. They investigate color, surface area of the collector, and covers on the heater. They establish relationships between the variables in the solar water heater and the rate of temperature increase.
- Students are challenged to discover the most effective way to heat a house with solar energy. They assemble a cardboard model house and investigate variables of window orientation, interior color, heat sink, and insulation. They establish a relationship between the variables in a solar house and the efficiency of the heating.



Grade 5 Social Studies

Students will acquire the knowledge and skills necessary to become informed, decision-making citizens of local, national, and global societies.

- **Geography of the United States**
Apply key geography skills to learn 14 geographic terms and 15 physical features that describe the U.S. Create question cards and answers for an Interactive Desk Map game.
- **Native Americans and Their Land**
Use visual images and written information to discover why Native Americans migrated to North America and how they adapted to the environments they encountered. Illustrate dictionary entries for the terms migration, environment, and adaptation.
- **Native American Cultural Regions**
Discover how several Native American groups adapted to different geographic areas. Assume the role of historian to evaluate a movie script about life in the Northwest during the 1700s.
- **Why Europeans Left for the New World**
“Excavate” and examine artifacts from a “sunken ship” and discuss what they reveal about exploration. Imagine they are explorers returning from the New World and write an explorer’s log about their experience.
- **Routes of Exploration to the New World**
Read about eight European explorers and then illustrate facts about the explorers’ expeditions. Place each explorer on a spectrum that ranges from greatest to least impact on history.
- **Early English Settlements**
Analyze images of early English settlements in North America and create act-it-outs. Design a real estate advertisement that would encourage people to move to Jamestown or Plymouth.
- **Comparing the Colonies**
Create a billboard about one of six American colonies and then give a presentation to convince other students to settle in their colony. Imagine they are moving from England to a colony in America and write a goodbye letter to their families.
- **Facing Slavery**
Learn about slavery from the perspective of West Africans and gain appreciation for the dilemmas they faced. Assume the role of West Africans living in the early 1700s and write journal entries describing one day in their lives.
- **Life in Colonial Williamsburg**
Take a “walking tour” of Williamsburg and examine written and visual information, record notes, and complete tasks. Write a postcard to a friend describing their favorite sites in colonial Williamsburg.
- **Growing Tensions between the Colonies and Britain**
Feel frustrated and powerless as they plan a class party under restrictions from the teacher. Analyze lyrics from a satirical ballad and then write their own version of the song.
- **To Declare Independence or Not?**
Bring to life one of six historical figures and then hold a panel discussion on whether to declare independence. Compose letters to the panelists with whom they most agreed and most disagreed.

Grade 5 Social Studies Overview Continued...

- **The Declaration of Independence**
Examine “artifacts” on Thomas Jefferson’s “desk” to learn about the Declaration of Independence and the events that led to it, and then paraphrase key excerpts in their own words. Create a historical plaque for Thomas Jefferson’s desk.
- **The Revolutionary War**
Struggle in a game of tug-of-war in which the teacher changes the rules to favor a seemingly weaker team, and then compare their experience to the Revolutionary War. Design a historical marker that commemorates factors that allowed the American colonies to win the Revolutionary War.
- **The Constitution**
Discover the stability of having three branches of government as they attempt to balance a book, first on one pencil, then on three. Play a game in which they determine which branch of government will resolve a series of situations. Summarize a recent newspaper article that describes an action carried out by one branch of government.
- **The Bill of Rights**
Work in small groups to create “living scenes” that represent key amendments in the Bill of Rights. Determine whether the events depicted in four fictional newspaper headlines could occur legally in the U.S.
- **Manifest Destiny and Settling the West**
Act as 19th-century settlers and migrate into the western territories of the U.S. Draw a settler and a native person and then write voice bubbles describing their perspectives on U.S. westward expansion.
- **The Diverse Peoples of the West**
Create interactive dramatizations about one group of westerners, such as the forty-niners. Portray the feelings about westward expansion of three westerners using drawings and voice bubbles.
- **The Causes of the Civil War**
Read about events that led to the Civil War and then complete an illustrated storybook. Polish their storybooks by adding covers, bindings, and other creative touches to make them look authentic.
- **The Civil War**
“Travel” to the battlefield at Gettysburg to discover important aspects of the Civil War, such as combat conditions. Compose a eulogy honoring those who fought and died at Gettysburg.
- **Industrialization and Modern America**
Read about key post-Civil War events, create an illustrated timeline, and play a game to better understand the importance of the events. Design a monument for the event they believe has had the greatest influence on their lives.

World Language - Grade 5



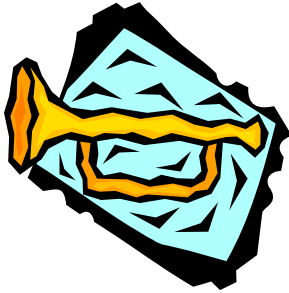
The purpose of the world language program in Whitefish Bay schools is to give students the opportunity to listen to, interact with, and begin to speak another language. Students receive an hour of instruction each week. At Richards, students are taught French. At Cumberland, students are taught Spanish. Additionally, in 5th grade, Richards Students receive a ten lesson introduction to French and German and Cumberland Students receive a ten lesson introduction to Spanish and German.

The fifth grade World Language student will continue to develop skills to:

- Use salutations
- Count from 1 to 1,000, by 1's, 2's, 5's, 10's, and practice math problems
- Recite the alphabet and vowels
- Identify group vocabulary
 - Colors and shapes
 - Calendar (days, months, date, seasons and weather)
 - Telling time to nearest five minutes
 - Clothing
 - Body parts
 - Family
 - Animals (jungle)
 - Classroom objects
 - Directional words and prepositions
 - Sports
- Learn new vocabulary that is connected to the grade-level core curriculum
- Demonstrate understanding of, and use simple commands
- Understand various aspects of culture
 - Food
 - Music
 - Holidays
 - Dances
 - Explorers
 - Euro
- Begin to read and write in another language

Elementary Specials Overview

General Music



The kindergarten through fifth grade music program offers a broad spectrum of opportunities designed to promote development on each child's musical potential. It is our goal to provide each student with the skills necessary to both create and enjoy music while understanding it as a universal means of expression. Lessons are designed to convey the joy of music that will encourage each child to seek musical opportunities later in life.

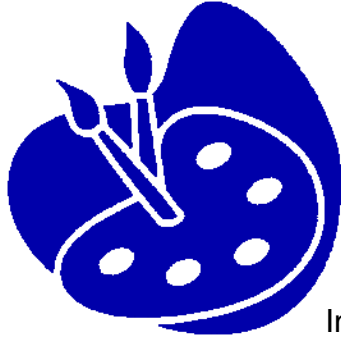
Beginning at the earliest level, students sing, chant, move, and dance to music composed by others while they are encouraged to alter, modify, expand, and improvise upon that music, later creating and composing music on their own. Throughout the elementary school years the children build skills of listening and responding, reading and writing music. The student's own voice is nurtured and good choral habits are stressed throughout the grades. Classroom instruments, both rhythmic and tonal, are used along with recorders at the third grade level and electric keyboards in the upper elementary classes.

The music literature in the classroom is chosen to reflect the backgrounds of our students as well as to expose them to the wide diversity of music created by the peoples of the world.

All children receive General Music instruction as per the time allotments shown below. In addition, fourth and fifth grade students may choose to be involved in the string program. Fifth grade students may choose to be involved in the band program. All fifth grade students are included in the fifth grade choir program.

General Music Time Allotments:

4-year-old kindergarten:	15 minute class once a week
half day 5-year-old kindergarten:	20 minute class twice a week
full day 5-year-old kindergarten:	20 minute class twice a week
first grade through fourth grade:	25 minute class 3 times per week
fifth grade:	50 minutes per week (either two 25 minute classes or one 50 minute class)
	PLUS
	One 40 minute choir period



Art

In the elementary art program, students will develop creativity and problem-solving skills, build and expand their understanding of art, and successfully manipulate a variety of media.

The elementary art curriculum allows students to begin to:

- Demonstrate understanding of artistic principles through effective use of media, tools, vocabulary and processes.
- Manipulate various media, materials and/or images to be expressive.
- Develop and relate his or her knowledge of art to themselves and others.
- Understand, discuss and respond to works of art.

Students experience a wide variety of materials and media in the elementary art program. They are shown proper techniques for creative use of materials. Projects are assigned with specific goals and criteria in mind, but allow for personal creativity and problem solving. When possible, art experiences link to school-wide as well as classroom learning themes and activities.

Learning experiences center around:

The Elements of Art

color
value
line
texture
shape
form
space

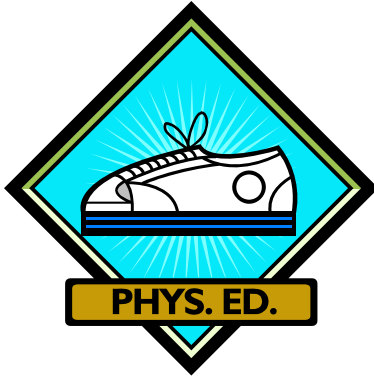
The Principals of Design

Balance
Emphasis
Harmony
Variety
Graduation
Rhythm
Proportion

Art Time Allotments:

Kindergarten:	30 minute class once a week
Grades 1-5	60 minute class once a week

Physical Education



Physical Education will enable each student to acquire the knowledge and skills to pursue and enjoy a lifetime of healthful activities.

Elementary physical education offers a wide variety of physical activities to our students. Our theme of “children learning to move and moving to learn” guides us to teach not only physical skills, but also movement concepts and principles needed for their development.

Optimal fitness for students ages 4 to 11 is the priority. Building healthy lifestyles through physical activity is discussed and practiced in every class. Good sportsmanship, teamwork, respect, and establishing positive attitudes and self-confidence are also common threads in each lesson. Students will learn responsible social and personal behavior in the gym while fitness and physical skills are practiced, and aerobic and sport-specific games are played.

We hope that children will wholeheartedly enjoy physical activity so it will become an integral part of their daily lives and carry over into adulthood.

Physical Education Time Allotments:

4-year-old kindergarten:	30 minute class once a week
half day 5-year-old kindergarten:	30 minute class once a week
full day 5-year-old kindergarten:	30 minute class twice a week
first grade through fourth grade:	25 minute class 3 times per week
fifth grade:	40 minute class 3 times per week



Technology

Students in Whitefish Bay utilize technology to enhance and extend their learning throughout the curriculum. Technology available includes classroom computers and computer labs with server and Internet access, classroom monitor/tv/vcr units, portable word processors, and a variety of peripheral equipment. Teachers design and implement technology experiences which allow students to access technology at developmentally appropriate stages. Technology application integrated with district standards enable students to:

- Use a variety of technology tools in order to facilitate and demonstrate learning across the curriculum.
- Use technology to communicate in various ways.
- Understand and operate computer systems and other technologies.
- Understand, respect and apply rules of ethics to be responsible users of technology.

Technology applications are integrated as appropriate throughout the elementary curriculum. Integrated word processing instruction is introduced in first grade, with new elements added each year through grade five. Word processing is integrated with other curricular areas such as reading, language arts, science, and social studies. Formal keyboarding instruction begins in third grade and builds through grade five. Efficient, safe, and ethical use of varied technologies is taught at all grade levels.