



5th Grade Curriculum Overview

**BATAVIA
PUBLIC
SCHOOLS**
District 101

August 2009

Introduction

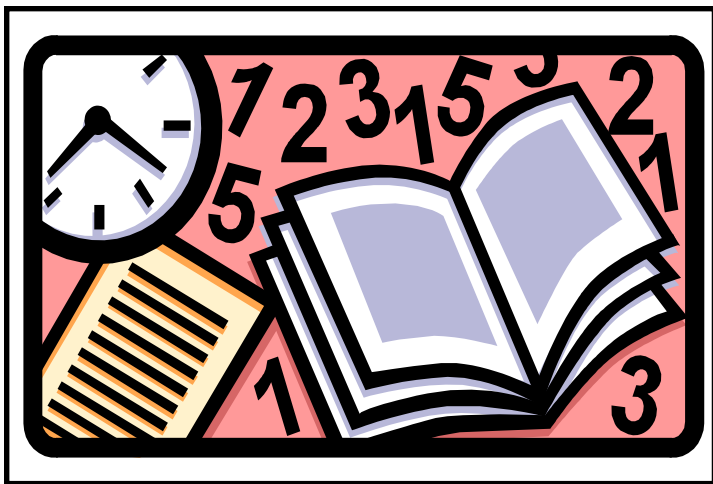
This document outlines the goals of our present fifth grade curriculum. The purpose of this communication is to give parents a brief overview of our K-5 program; it is not intended to be a “curriculum guide”, nor does it give details about how each program is actually implemented.

Teachers actively participate in the review and revision of curriculum. They work continuously to improve the programs we offer to students, utilizing educational research, experiences with students, and suggestions from parents. Teachers use many materials, programs, activities, and strategies to develop a program that provides rigorous, sound, and effective educational opportunities for all students.

The curriculum of Batavia Public Schools is guided by a mission statement that was developed by citizens and staff members.

Mission

*Educating students today
to meet the challenges
of tomorrow.*



Mathematics

In District 101, we believe that the goals set forth in the *Curriculum and Evaluation Standards for School Mathematics* by the National Council of Teachers of Mathematics reflect the type of mathematics instruction which prepare Batavia students for the 21st century. These goals include:

- learning to value mathematics;
- becoming confident in one's own ability;
- becoming a mathematical problem solver;
- learning to communicate mathematically;
- learning to reason mathematically.

The elementary mathematics program in District 101 is *Everyday Mathematics*, which was developed by the University of Chicago. Some of the key features of the Everyday Mathematics program include: problem solving for everyday situations, developing readiness through hands-on activities, sharing ideas through discussion, cooperative learning through partner and small-group activities, practice through games, ongoing review throughout the year, ongoing assessment, and home and school partnership.

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Numeration

Reading, writing, and comparing negative numbers, fractions, whole numbers through billions, and decimals through thousandths; reading, writing, and interpreting whole number powers of 10; translating between exponential and scientific notation; understanding and identifying prime numbers, composite numbers, and square numbers.

Operations and Computation

Using paper-and-pencil algorithms to add, subtract, multiply, and divide multi-digit whole numbers and decimals; using mental arithmetic both to compute exact answers and to estimate; rounding from billions to hundredths; translating among fractions, decimals, and percents; prime factoring; converting between fractions and mixed numbers; adding and subtracting fractions and mixed numbers with unlike denominators; finding least common multiples and greatest common factors; multiplying and dividing fractions.

Data and Chance

Comparing probabilities for different outcomes; comparing experimental and theoretical probabilities; expressing probabilities as fractions, decimals, and percents; drawing justifiable conclusions from data; displaying data in more than one way; formulating a question, carrying out a survey or experiment, recording data, and communicating results; drawing and interpreting circle graphs and stem-and-leaf plots; understanding measures of central tendency (mean, median, mode).

Geometry

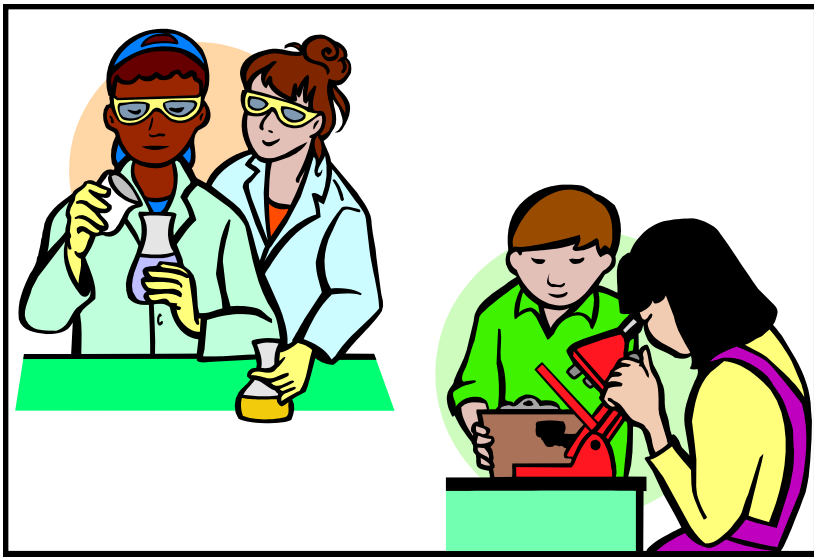
Constructing a circle with a given radius or diameter; defining and creating tessellations; measuring and drawing angles, including reflex and straight angles; identifying and defining right, isosceles, equilateral triangles; plotting points in four quadrants; using translations, reflections, and rotations; solving perimeter, area, and volume problems; understanding the relationship between volumes of cone/pyramids and cylinders/prisms; finding the surface area of a cube and the area of a circle; identifying angle relationships in triangles and quadrilaterals.

Measurement and Reference Frames

Measuring and estimating length, area, volume, weight, and capacity; converting and computing with common units of measure; creating scale drawings.

Patterns, Functions, and Algebra

Evaluating simple algebraic expressions; finding rules for patterns; finding the n th term in a sequence; solving simple open number sentences and simple rate problems; working with equations by doing the same thing to both sides; understanding simple direct proportion; using variables and equations to represent situations; graphing ordered pairs; translating among verbal, numerical, and graphical representations.



Science

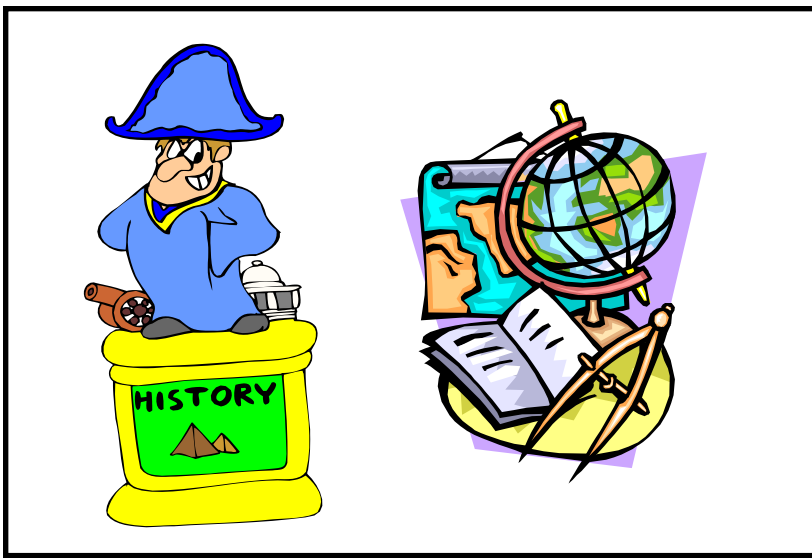
In District 101, we believe that the goals set forth in the *National Science Education Standards* by the National Research Council reflect the type of science instruction which prepare Batavia students for the 21st century. These goals include:

- become familiar with the natural world;
- foster natural curiosity about the world;
- become scientifically literate and use appropriate science in decision-making;
- use scientific process skills such as observing, recording, and experimenting;
- assist learning through hands-on, minds-on, inquiry-based activities;
- use technology and understand how it relates to science.

The elementary science program in District 101 is the *Full Option Science System (FOSS)*. The *FOSS* developers are dedicated to the proposition that elementary students learn science best by doing science. Teachers and students do science together, engaging in enduring experiences that lead to deeper understanding of the natural world.

Fifth Grade Overview

STRAND	SCIENCE CONCEPTS	THINKING PROCESSES
Earth Science Students use stream tables to investigate the variables that influence erosion and deposition of earth materials (amount of water, steepness of slope, time) and the creation of landforms (valley, canyons, river channels, deltas, alluvial fans). Students assemble models of mountains and create topographic maps.	change over time, deposition, elevation, erosion, landform, map, model, slope, viewpoint	Relating Organizing Comparing Communicating Observing
Life Science Students work with laboratory tools and techniques to test food using indicators to determine acid, vitamin C, fat, and sugar content. They use knowledge and nutritional information from product labels to plan and evaluate menus. They explore the relationship between the foods they eat and personal health.	acid, calorie, carbohydrate, chemical reaction, indicator, metabolism, nutrient, nutrition	
Physical Science Students conduct investigations using two kinds of simple machines, levers and pulleys. They set up systems, measure outcomes, and record using conventional diagrams. They set up systems, measure outcomes, and record using conventional diagrams. They relate the force needed to lift a load to the advantage resulting from simple machines. They graph to organize and interpret results of investigations.	advantage, effort, fixed/movable pulley, fulcrum, lever classes, load, simple machine	
Scientific Reasoning and Technology Students explore technological design by proposing solutions and evaluating products. Students create scientific models to help them think productively about complex problems. They create models to explain the relationship of parts in systems that are not accessible (black boxes and a whimsical device called a humdinger). They design and build model carts that respond to a series of engineering challenges.	black box, design, engineering, model, representation, technology, variable, wheel and axle.	



Social Studies

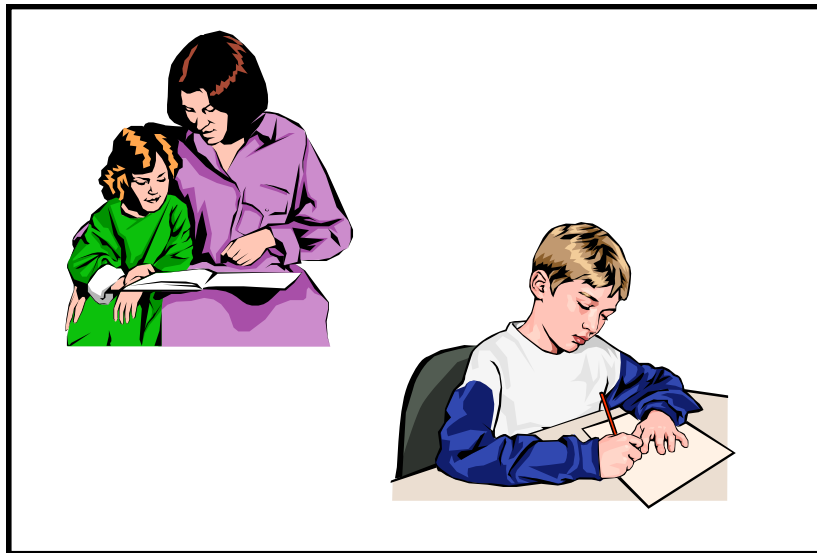
In District 101, we believe in the goals outlined in *Curriculum Standards for Social Studies* by the National Council for Social Studies. Therefore, the goal of the Batavia social studies program is for all students to:

- Acquire knowledge, skills, and attitudes required to assume the role of citizen in our democratic republic;
- Integrate knowledge, skills, and attitudes within and across disciplines;
- Construct a knowledge base and attitudes from academic disciplines as specialized ways of viewing reality;
- Understand the changing nature of knowledge, fostering entirely new and highly integrated approaches to resolving issues of significance to humanity;
- Develop multiple perspectives, including personal, academic, pluralist, and global perspectives.

Our elementary social studies program is *Social Studies Alive*, which was developed by the Teacher's Curriculum Institute. The program provides interactive experiences for students that revolve around key essential questions in the study of social studies.

Fifth Grade Overview

- Geography of the United States** - Students apply key geography skills to learn 14 geographic terms and 15 physical features that describe the U.S.
- Native Americans and Their Land** - Students use visual images and written information to discover why Native Americans migrated to North America and how they adapted to the environments they encountered.
- Native American Cultural Regions** - Students discover how several Native American groups adapted to different geographic areas.
- Why Europeans Left for the New World** - Students “excavate” and examine artifacts from a “sunken ship” and discuss what they reveal about exploration.
- Routes of Exploration to the New World** - Students read about eight European explorers and then illustrate facts about the explorers’ expeditions.
- Early English Settlements** - Students analyze images of early English settlements in North America and create act-it-outs.
- Comparing the Colonies** - Students create a billboard about one of six American colonies and then give a presentation to convince other students to settle in their colony.
- Facing Slavery** - Students learn about slavery from the perspective of West Africans and gain appreciation for the dilemmas they faced.
- Life in Colonial Williamsburg** - Students take a “walking tour” of Williamsburg and examine written and visual information, record notes, and complete tasks.
- Growing Tensions between the Colonies and Britain** - Students feel frustrated and powerless as they plan a class party under restrictions from the teacher.
- To Declare Independence or Not** - Students bring to life one of the six historical figures and then hold a panel discussion on whether to declare independence.
- The Declaration of Independence** - Students 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.
- The Revolutionary War** - Students 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.
- The Constitution** - Students play a game in which they determine which branch of government will resolve each of a series of situations.
- The Bill of Rights** - Students work in small groups to create “living scenes” that represent key amendments to the Bill of Rights.
- Manifest Destiny and Settling West** - Students act as 19th-century settlers and migrate into the western territories of the U.S.
- The Diverse Peoples of the West** - Students create interactive dramatizations about one group of westerners, such as the Forty-Niners.
- The Causes of the Civil War** - Students read about events that led to the Civil War and then complete an illustrated storybook.
- The Civil War** - Students “travel” to the battlefield at Gettysburg to discover important aspects of the Civil War, such as combat conditions.
- Industrialization and Modern America** - Students read about key post-Civil War events, create an illustrated timeline, and play a game to better understand the importance of the events.



Language Arts

Comprehensive Balanced Literacy Framework

District 101 has adopted a comprehensive balanced literacy framework to support our students as they develop the necessary skills and motivation to become competent communicators and proficient learners.

Balanced literacy instruction respects and addresses the needs of all learners. It is a flexible, research-based framework that views teachers as informed decision makers who use authentic assessment to guide their instruction. A balanced literacy approach to instruction provides students with daily opportunities to engage in various reading, writing, listening, speaking, viewing and presenting activities to help them communicate more effectively. In a balanced literacy framework, students participate in read alouds, shared reading, guided reading, independent reading, and word study. In addition, students engage in modeled writing, shared writing, interactive writing, guided writing, and independent writing.

<<http://www.illinoisreads.com>>

Fifth Grade Overview

Literacy Expectations

Apply word analysis and vocabulary skills to read accurately:

- Use word patterns, root words, prefixes, suffixes, and context clues
- Use resources to understand meanings of unfamiliar words

Read a variety of texts with fluency:

- Read at an appropriate rate
- Read with expression
- Observe punctuation when reading orally

Apply strategies to comprehend a variety of texts, literature, and content areas:

- Self correct errors consistently
- Use context to confirm meaning
- Make and confirm predictions
- Adjust reading rate
- Use comprehension strategies

Use read and think strategies

- Make connections
- Question
- Create images
- Determine importance
- Infer
- Synthesize
- Gather and use information from text
- Summarize
- Recognize narrative elements and elements of non-fiction
- Identify author's purpose and perspective
- Use text structure and format
- Critique text using personal response

Read independently:

- Choose appropriate materials independently
- Read a variety of genre
- Read independently for a sustained period of

Use the writing process effectively:

- Use stages of the writing process
- Reflect on own writing and that of others
- Use revising and editing strategies

Organize writing for a variety of purposes:

- Use characteristics of a well-developed narrative, expository, and persuasive piece
- Organize ideas in a logical sequence with elaboration
- Write for a specified purpose and audience

Maintain focus:

- Maintain narrow topic selection throughout piece
- Establish and sustain focus within and between paragraphs

Elaborate and support ideas with details:

- Expand ideas by including more facts or descriptions about detail

Use descriptive, precise language to enrich writing:

- Use precise adjectives, adverbs, and prepositional phrases to enrich written language
- Use strong verbs and interesting language
- Begin to use descriptive language and similes

Writes sentences with varied structure and length:

- Use a variety of sentence beginnings
- Write complex sentences of varied length
- Write paragraphs that include a variety of sentence types

Use standard writing conventions:

- Demonstrate appropriate use of nouns, pronouns, verbs, adjectives, and conjunctions
- Use appropriate capitalization
- Use end marks, commas, and quotation marks
- Use conventional spelling
- Write complete sentences demonstrating subject-verb agreement

Transfer correct spelling of frequently used words to written work



Allied Arts



Foreign Language

The purpose of our elementary Spanish program is to introduce students to the Spanish culture and to language as a general concept. The goals of the program are to:

- Open the minds and the worlds of students to other cultures through the Spanish language,
- Help students learn how to communicate effectively in Spanish, and
- Encourage students to continue a life-long learning and appreciation of the Spanish language and culture.

The program incorporates rhythm, repetition, physical movement, songs, and games to explore the Spanish language. The K-2 curriculum includes major themes such as greetings, numbers, colors, body, family, animals, and weather. As kindergarteners begin to explore these themes – with an emphasis in conversation, movement, and song – the first and second graders focus on these topics in more depth. In grades 3-5, students continue to review and practice previously learned materials, in addition to learning new vocabulary. Students begin to explore the fundamentals of Spanish grammar including adjectives, present tense verbs, and basic sentence structure.

Music

General music classes are offered to all students grades K-5 during the school day. Music classes are scheduled for 60 minutes per week with a music specialist. The goal of the music program is both the development of musicality and an appreciation of music within each child. Our program is based on activities that children

like to do: sing, chant rhymes, clap, dance, and keep a beat on anything near them. These instincts are directed into learning music by hearing and making music first, then reading and writing it later, just as we learn our spoken language. Students participate in a non-competitive environment where they find their rewards in the fun of making music with others.

Physical Education

The Elementary Physical Education program promotes the belief that physical education is an integral part of a child's education. The program fosters personal awareness of the importance of health as it relates to movement. This also includes growth in social interactions including skills in critical thinking, problem solving, kinesthetic awareness, sportsmanship, and the importance of life-long leisure activities. These attributes are encouraged through our curriculum:

Intermediate

Fitness	Dance
Movement Education	Rhythms
Tumbling and Gymnastics	Ball Skills
Individual Sports	Team Sports
Cooperative Group Activities	

Children are encouraged to develop positive attitudes about themselves and about physical activity so that they choose to be physically active throughout their lives.

Visual Arts

The Visual Arts program includes teaching art history, art production, art criticism, and aesthetics at all levels. Art appreciation is fostered in children by the use of various art media and experiences. Art connects to things our students are learning in their classrooms and things that happen around the world. By teaching about specific

artists and cultures the students become aware that art encompasses a diverse population and that artists have been creating through the history of time. Through group and individual activities our students are encouraged to talk about and create art that expresses themselves and reflects ideas and concepts they've learned. Students are encouraged to develop opinions and ideas about their own art and that of others, and be able to share them in several ways. Knowledge of tools and media are taught along with the skills of how to use them to create. Our Visual Arts program is rich with content and will develop our students' ability to communicate visually and learn the language and skills of art as well as experiencing culturally diverse art. Students at each level will enjoy learning about, talking about, and creating art while becoming more aware of the variety of art and artists that make our world more colorful.

Instrumental Music

Instrumental music begins with an extensive testing program for each fourth grade student. The test includes tonal memory, pitch discrimination and rhythmical recognition. On the basis of the student's test results and teacher recommendation, they are invited to join the instrumental music program. (Students receiving low results or poor recommendations are allowed to join; however, the parents are made aware of the situation.)

Students begin lessons on instruments the summer before fifth grade. A concerted effort is made to recruit a complete band instrumentation and full complement of strings. Students furnish their own instruments with the exception of larger instruments, i.e., string bass, tuba, etc.

During the school year, students are given lessons in small instrument classes. These lessons are held during the regular school day. In October, the fifth grade band and orchestra begin regular rehearsals with students from all elementary schools meeting before school for a 50 minute rehearsal once a week.

Wellness—Grades 3-5

Starting in the 2008-2009 school year, students will be receiving instruction in physical and social-emotional wellness. This class will be provided to students 30 minutes every five days and will be taught by our school social workers. Lessons will be reinforced by classroom teachers.

Nutrition and Fitness

To provide instruction on making healthy choices related to nutrition and fitness

Students will learn:

- Simple physiology
- Basic food label reading
- The importance of produce in their diet
- The workings of their immune system
- How to make healthy food selections
- The role physical activity plays in disease prevention
- The role a low-fat, high-fiber diet plays in disease prevention

Social and Emotional

To provide social skills that can be used in the classroom, the playground, and at home

Students will learn:

- How to recognize and empathize with the feelings of others
- How to control one's impulses and problem solve difficult situations
- How to recognize anger triggers for themselves and others and manage their anger



Technology

The International Society for Technology in Education (ISTE) has set the expectation for students as they use technology. The ISTE *National Educational Technology Standards for Students* serves as the foundation for the District 101 technology curriculum framework.

Batavia students engage in a variety of technology-based learning episodes designed to expand previously learned skills while introducing the student to new skills. The curriculum framework categorizes technology skills as follows:

- *Information Literacy and Ethical Behavior*
- *Basic Skills*
- *Keyboarding Skills*
- *Word Processing/Desktop Publishing Skills*
- *Multimedia Skills*
- *Internet Skills*
- *Spreadsheet and Database Skills*

Fifth Grade Overview

Technology Expectations

- Evaluate electronic information from various sources, including Web sites
- Properly cite sources of copyrighted materials
- Exhibit ethical behaviors in the use of the tools of technology
- Use the district network to store and manage information
- Demonstrate the skills required to compose, edit and publish documents
- Incorporate text and graphics in a multimedia presentation
- Use a search engine to gather information on the Internet
- Enter and use information in a prepared spreadsheet or database

Community Unit School District 101

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www.bps101.net

August 2009

Elementary Schools

Early Childhood Center

905 Carlisle Road
Batavia, IL 60510
Andrea Paterala, Principal
630-937-8900

Alice Gustafson School

905 Carlisle Road
Batavia, IL 60510
Christine Ralston, Principal
630-937-8000

Hoover-Wood School

1640 Wagner Road
Batavia, IL 60510
Lew Girmscheid, Principal
630-937-8300

Grace McWayne School

3501 Hapner Way
Batavia, IL 60510
Kevin Skomer, Principal
630-937-8100

J.B. Nelson School

334 William Wood Lane
Batavia, IL 60510
Melissa Kaczowski, Principal
630-937-8400

H.C. Storm School

305 N. Van Nortwick Street
Batavia, IL 60510
Cynthia Sikorski, Principal
630-937-8200

Louise White School

800 Prairie Street
Batavia, IL 60510
Kristine Webster, Principal
630-937-8500

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Paige Koos Director of Student Services

Andrea Paterala..... Assistant Director of
Student Services

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Don Seawall..... Assistant Director of
Technology

Pat Browne..... Director of Buildings and
Grounds

Leah Swanquist..... Assistant Director of
Buildings and Grounds