

SYLLABUS

Welcome to 5th grade!

5th Grade Mathematics Topics

1st Quarter

Unit 1: Populations and Samples

This unit provides a review of the TIMS laboratory method, a simplified version of the scientific method. Using the context of populations and samples, students explore the relationship between variables. They represent these relationships using tables, graphs, and averages (median and mode). Students solve problems by analyzing data. They use averages, data tables, and graphs to make generalizations and predictions about a data set.

Unit 2: Fractions

Students use multiple representations and real-world contexts to support their development of the concepts related to fractions. Students review the use of circle pieces, number lines, and symbols to represent and identify fractions, including proper fractions, improper fractions, and mixed numbers. Students make connections and translate between these representations to compare, order, and find equivalent fractions. Students develop multiplication and division strategies for finding common denominators. Students develop strategies to add and subtract with like and unlike denominators.

Unit 3: Big Numbers

Students use multiple representations and real-world contexts to support their development of number sense for large numbers. Students use place value charts, number lines, and number sentences to represent numbers to the billions. Students make connections and translate between these representations to compose, decompose, compare, and order large numbers. Students use strategies to estimate quantities and products. They represent numbers with exponents and multiply numbers that are multiples of ten represented as powers of ten.

2nd Quarter

Unit 4: Estimation and Efficient Computation

Students further develop strategies for multidigit addition, subtraction, and two-digit by two-digit multiplication. They explore both mental math and paper-and-pencil methods, solving problems that require exact answers as well as those where estimation is appropriate. Students use computational strategies to develop formulas for finding the area of rectangle and triangles, and the volume of rectangular prisms.

Unit 5: Fractions and Ratios

Students use multiple representations and real-world contexts to extend their understanding of fractions to include ratios. Students review the use of circle pieces, number lines, and symbols to represent and identify fractions and ratios. Students use multiplication and division strategies for finding the simplest form of a fraction. Students solve problems involving ratios that include converting between units of measure within a standard measurement system.

Unit 6: Location and Shapes

Students begin this unit exploring negative numbers. They then use this understanding as they plot points in all four quadrants of a grid. Students describe locations on a grid using ordered pairs. They construct two-dimensional shapes by plotting points on a grid and then classify shapes using their properties.

3rd Quarter

Unit 7: Division and Data

Students use models to divide multidigit numbers by one- and two-digit divisors. They develop strategies for estimation, mental math, and paper-and-pencil methods to divide multidigit numbers. Students complete an investigation in which they find the area of shapes with curved sides. They organize their data in a table and on a graph and then solve problems and make generalizations about their data using these tools.

Unit 8: Decimals

Students represent and identify numbers to the thousandths place using area models, number lines, words, symbols, and expanded form number sentences. They make connections and translate among these representations. Students connect representations of fractions and decimals and use them to represent the same quantity. Students use their understanding of place value to compare and order decimals to the thousandths place. They extend their understanding of place value and operations to develop strategies to add, subtract, multiply, and divide decimals.

Unit 9: Factors and Multiples

Students identify and categorize numbers as prime, composite, and square. They identify and find multiples and factors of a number. Students find the prime factorization of a number. They identify, describe, and represent number patterns. Students use order of operations to make calculations that involve exponents and the use of parentheses.

4th Quarter

Unit 10: Fraction Operations

Students solve problems that involve adding and subtracting fractions and mixed numbers using models. They develop and use strategies that include finding a common denominator. Students develop procedures for multiplying a fraction times a whole number. Student use patterns to multiply fractions. They use multiplication to bridge division of fractions.

Unit 11: Equivalent Fractions Using Proportions

Students use ratios and strategies for finding equivalent fractions to solve problems and make comparisons. Students convert recipes, determine the ratio between the circumference and diameter of a circle, and use ratios to compare the density of objects. They also use ratios to describe a population using a sample of the population.

5th Grade Social Studies Topics

1st Quarter Social Studies Topics

Introduction to the United States of America

Lesson1: Geography

Lesson2: People and Government

Lesson3: Economics

Lesson4: History and Culture

Unit 1 Native Peoples of the Americas

How do people adapt to where they live?

Lesson1: Settling the Americas

Lesson2: Native Americans of the West

Lesson3: People of the Southwest

Lesson4: Native Americans of the Plains

Lesson5: People of the Eastern Woodlands

Unit 2 Exploration and Colonization

What happens when different cultures first meet?

Lesson1: The World Expands

Lesson2: Spaniards Reach the Americas

Lesson3: Spanish Exploration and Conquest

Lesson4: Spain's Overseas Empire

Lesson5: Searching for the Northwest Passage

Lesson6: The First French Colonies

Lesson7: The First English Colonies

2nd Quarter Social Studies Topics

Unit 3 Colonial America

Why do people settle new areas?

Lesson1: New England

Lesson2: The Middle Colonies
Lesson3: The Southern Colonies
Lesson4: Colonial Life
Lesson5: Slavery in the Colonies
Lesson6: Colonial Enemies
Lesson7: Colonial Government

Unit 4 The Struggle for North America

Why do people take risks?

Lesson1: The French in Louisiana
Lesson2: The French and Indian War
Lesson3: Colonists Protest British Rule
Lesson4: The Revolution Begins
Lesson5: The Declaration of Independence
Lesson6: Fighting the War
Lesson7: American Victory
Lesson 8: The War Ends

3rd Quarter Social Studies Topics

Unit 5 The New Nation

What causes a society to grow?

Lesson1: Planning a New Government
Lesson2: United States Constitution
Lesson3: The Louisiana Purchase
Lesson4: The War of 1812
Lesson5: The Industrial Revolution
Lesson6: The Age of Andrew Jackson
Lesson7: Texas and the War with Mexico

Unit 6 Slavery and Emancipation

What are some things people are willing to fight for?

Lesson1: King Cotton and Spread of Slavery

Lesson2: Heading Toward War

Lesson3: The Nation Divided by War

Lesson4: The Union Moves Toward Victory

Lesson5: The War Ends

Lesson6: Reconstruction and After

4th Quarter Social Studies Topics

Unit 7 The Nation Grows

How does technology change people's lives?

Lesson1: Settling the West

Lesson2: The Plain Wars

Lesson3: Big Business

Lesson4: Growing Cities

Lesson5: New Territories and States

Unit 8 The Modern Era

How does a nation protect its freedoms?

Lesson1: A New Century

Lesson2: Good Times, Hard Times

Lesson3: World War II

Lesson4: The Cold War

Lesson5: A Time of Change

Lesson6: Present-day Challenges

Unit 9 Illinois Past and Present

What do people, places, and events teach us about Illinois?

Lesson1: Early Illinois

Lesson2: Road to Statehood

Lesson3: Illinois and the Civil War

Lesson4: Illinois Expands

Lesson5: Modern Illinois

- Students will be engage in various projects throughout the year like class presentations, writing papers, and creating physical models.
- Students will also be required to find current events articles from various news source. They will write a summary of the event that they found and explain how the event is important for the world. Students will then use this information and summary to present their information to the class.

5th Grade Reading Topics

This year our class will consist of a blend of whole class lessons, small group meetings, partner work and individual reading time.

Whole Class Mini Lesson Topics

Literature	Informational Text	Vocabulary
<ul style="list-style-type: none"> ● Cause and Effect ● Dialogue ● Inferences ● Predictions ● Main Idea ● Plot ● Point of View ● Setting ● Summarizing ● Theme 	<ul style="list-style-type: none"> ● Perspective ● Cause and Effect ● Facts and Opinions ● Inferences ● Predictions ● Locating Information ● Main Idea ● Sequencing ● Summarizing ● Supporting Details 	<ul style="list-style-type: none"> ● Academic Vocabulary ● Content Vocabulary ● Base Words, Affixes ● Context Clues ● Multiple-Meaning Words ● Text Features ● Visuals ● Word Nuances ● Word Relationships ● Cause and Effect

Small Group Meetings and Independent Reading

In small group meetings and literature circles students will read, analyze and discuss texts that are tailored to meet their unique literacy needs. They will

respond to the text in writing and communicate their findings with other students.

In order to foster a culture of lifelong learners, who are empowered by independence, students will spend time reading and enjoying texts of their own choosing. The most current research points out that, in order to have engaged and active readers, students need to be allowed voice and choice in their learning. Therefore, I will be allowing the students many opportunities to choose the text they are reading. We will also spend time covering how to select resources that match up to our interests, answer our questions, and meet us at our academic level.

Essential Skills For 5th Grade Readers

- Quote text and draw inferences
- Determine main ideas and summarize
- Explain relationships between events and characters
- Use and define academic vocabulary
- Examine text structure
- Find information on print or digital sources
- Cite how the author uses reasons and evidence
- Phonics - roots, suffixes, prefixes
- Accuracy
- Fluency
- Expression

5th Grade Science

Our science standards are the Next Generation Science Standards (NGSS) which encourage deep, thoughtful scientific inquiry and allow students to practice with concepts over an extended period of time. The NGSS standards involve

students engaging in hands-on investigations and allows students to experience what a real scientist does.

Science and Engineering Practices- During any given day students will be engaging in at least one of the following guiding scientific practices:

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

Our class assignments will contain a mixture of daily classroom practice, note-taking, content quizzes, end-of-unit tests and interactive notebook checks.

Interactive Notebooks

-Interactive notebooks are an ongoing portfolio of a student's created work. It is a visual product of the work that students have completed in class. This will be checked once every 5 weeks and will be graded as 1 exam.

Grade 5 Science Topics

The Investigative Process

Students will learn and review about the scientific method and the proper way to measure data, what variables are, how variables affect an experiment.

Earth Systems

Various systems of the Earth will be studied. Each individual component (geosphere, biosphere, atmosphere, and hydrosphere) will be studied in depth.

Matter and Energy In Ecosystems

Ecosystem structures and pathways between the sun's energy and how all living things use the energy. The hierarchy of living things and predator/prey relationships are also studied.

Structures and Properties of Matter

Students will work to develop a model to describe that matter is made of parts that are too small to be seen. The states of matter and phases changes will be included.

Space Systems

The force of gravity that works on all objects, the apparent brightness of stars in relation to the Earth and to other stars will be examined.

5th Grade Writing Syllabus 2018

Curriculum Overview

We will be using the Writer's Workshop model this school year in order to learn the skills and strategies needed to write for different purposes. Below are listed the order which we will be working on the various genres, organized by quarter.

Quarter 1: Writing process, narrative writing, research skills and research paper

Quarter 2: Opinion writing

Quarter 3: Informative Writing

Quarter 4: Poetry

In addition to written composition, students will be working on grammar and spelling. Spelling instruction will begin in October, once individual spelling levels are determined and a plan for each student is set in place.

A focus of written composition throughout the year will be on the development of the **6 +1 Writing Traits**, which align with and support the Common Core Standards. The following is a brief description of these traits associated with excellence in writing:

- Ideas- the main message
- Organization- the internal structure of the piece
- Voice- the personal tone and flavor of the author's message
- Word choice- the vocabulary a writer chooses to convey meaning
- Sentence fluency- the rhythm and flow of the language
- Presentation- how the writing actually looks on the page

Grading

The following are the equivalents
used for the entire school.

100-90	A
89-80	B
79-70	C
69-60	D
59-Below	F

The following weights will be used to determine your child's final grade. Since we will be using different weights and criteria for different subjects, we have listed all the grade weights below.

LANGUAGE ARTS	MATHEMATICS	WRITING	SCIENCE	SOCIAL STUDIES
25% Classwork	30% Classwork	25% Classwork	30% Classwork	25% Classwork
25% Formative Assessments	25% Formative Assessments	25% Formative Assessments	25% Formative Assessments	25% Formative Assessments
40% Summative Assessments	35% Summative Assessments	40% Summative Assessments	35% Summative Assessments	40% Summative Assessments
10% Homework	10% Homework	10% Homework	10% Homework	10% Homework