

What Will Fifth Graders Learn This Quarter?

Our Focus: Number Theory

8/29/11 – 10/28/11 Quarter 1

MEASUREMENT TOPICS

Algebraic Representations	Graphic & Numeric Representations
Number Comparison	Number Theory/Properties
	Patterns & Functions

What will we learn?

- To identify prime & composite numbers less than 100
- To find the prime factorization of a composite number
- To find the GCF and the LCM of numbers
- To use number theory concepts of primes, factors, multiples, and rules of divisibility to show number relationships
- To recognize, describe, and extend numerical and geometric patterns, and functional relationships
- To analyze patterns and generalize rules illustrated in patterns
- To write the rule for a given function (one-step) table
- To represent relationships using graphs and tables
- To identify and graph points using ordered pairs in the first quadrant of the coordinate plane
- To compare, order, and describe integers on a number line
- To write and evaluate simple algebraic expressions with one variable using substitution

How will we learn these things?

- By using the “birthday cake” and “factor tree” strategies
- By identifying patterns using a 100-grid
- By building rectangular arrays to find multiples of numbers
- By solving real-world problems
- By applying concepts through exploration & games

What resources will we use?

Hundreds grids	Grid Paper	Nimble With Numbers
Base-10 blocks	Computer Programs	Colored Tiles
Venn Diagram	Hot Math Topics	Divisibility Rules
Snap Cubes	Navigating Through Algebra	Super Source

Why are we learning this?

- To understand the relationship between factors & multiples
- To understand the relationship between patterns & functions
- To be able to break a number down into its smallest factors
- To use graphs, tables, and symbols to represent relationships
- To know when and how to use algebraic and numeric expressions
- To solve real-world problems

Vocabulary Words:

- Composite
- Prime
- Greatest Common Factor (GCF)
- Least Common Multiple (LCM)
- Rules of Divisibility
- Function
- Percent
- Exponent
- Algebraic Expression
- Factor
- Multiple

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What will Fifth Graders learn this quarter?

Our Focus: Writing to Express Personal Ideas

8/29/11–10/28/11 Quarter 1

What questions do we ask ourselves?

- Where can I get ideas for my writing?
- How do I use the writing process to help me produce an effective piece of writing?
- How do I use other authors organizing structures to help me choose a sequence in which to write?
- What details can I add to my writing to help my reader share the world of my imagination?
- What grammar, paragraph structure, and punctuation do I need to use to make my ideas clear?
- What are the critical steps that I need to use in peer and self-evaluation of a writing piece?

Why are we learning this?

- To describe personal experiences in a clear manner
- To brainstorm, draft, revise, edit, and publish their personal narratives
- To plan a story that follows an organizational text structure
- To learn to add details to help the reader visualize the story

How will we learn these things?

- Creating a writers notebook
- Using writing samples
- Modeling the 6 + 1 traits
- Peer and Teacher conferencing
- Modeling the writing Process

Vocabulary Words:

- | | | |
|--------------------|--------------|----------------------|
| • Ideas | • Brainstorm | • Details |
| • Organization | • Draft | • Hook |
| • Word Choice | • Revise | • Personal Narrative |
| • Conventions | • Edit | |
| • Voice | • Publish | |
| • Sentence Fluency | | |

What resources will we use?

- | | |
|--------------------------------|----------------------------------|
| • Graphic Organizers | • Writing Samples |
| • Writers Notebook | • Fiction Texts |
| • Writing Checklist | • Computers, MS Word, PowerPoint |
| • Dictionaries and Thesauruses | |

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What will Fifth Graders learn this quarter?

Our Focus: Comprehension of Informational and Literary text

8/29/11—10/28/11 Quarter 1

What questions do we ask ourselves?

- What strategies do good readers use before, during and after reading to understand informational text?
- What are the text features I can use to help me locate facts and information quickly?
- How does the author use text structure to help me understand and better what I read?
- How does my background knowledge help me understand a text?
- How can reading historical fiction add to my understanding of history?
- How can understanding story elements help me better understand what I read?
- How does knowing the characteristics of Historical Fiction help me understand what I have read?

Why are we learning this?

- To develop and apply knowledge of the organizational structure of informational text.
- To determine and analyze important ideas and messages in informational text and literary text.
- To develop and apply comprehension skills of literary text.
- To analyze elements of literary texts to facilitate understanding and interpretation.
- To read critically to evaluate literary texts

How will we learn these things?

- Setting reading goals
- Making Predictions
- Review text features
- Identify the important facts based on the text feature
- Identify the five text structures
- Identify the elements of historical fiction
- Identifying story elements
- Identify the elements of plot

Vocabulary Words:

Sequencing	Fact	Background Knowledge
Problem and Solution	Fiction	
Compare/Contrast	Predict	
Cause and Effect	Question	
Description	Clarify	
Main Idea	Exposition	
Details	Rising Action	
Summarize	Climax	
Characteristics	Falling Action	
Historical Fiction	Resolution	

What resources will we use?

- | | |
|-------------------------|---------------------------|
| • Time for Kids | Historical Fictional Text |
| • I-Openers | STARS Books |
| • Big Books (Inf. Text) | JGB Stories |
| • Leveled Text | Brain Pop |
| • Graphic Organizers | Words Their Way |

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What Will Fifth Graders Learn This Quarter?

Our Focus: Geometry **8/29/11 – 10/28/11 Quarter 1**

MEASUREMENT TOPICS

Geometric Properties & Applications

Geometric Representations

Measurement

What will we learn?

- To identify, describe, compare, and classify two- and three-dimensional figures by relevant properties including the number and size of angles, the number of vertices, the number of edges, and the shape of the faces
- To identify and label the vertex and rays of an angle
- To identify and draw circles and identify relationships among the radius, diameter, center, and circumference
- To draw geometric figures using tools and technology
- To use protractors to measure angles

How will we learn these things?

- By exploring geometric shapes
- By using tools to construct geometric figures
- By using a tool to build and measure angles and circles
- By using geometric dot paper to draw geometric figures
- By using technology to reinforce geometry concepts

What resources will we use?

Protractors	Compass	Geometric Shapes
Geometric Dot Paper	Technology	Straws
Geo Aerobics	Geo Boards	

Why are we learning this?

- To be able to use properties to classify geometric figures
- To be able to construct or draw geometric figures
- To learn how the size of an angle is related to rotation
- To learn how angles are measured

Vocabulary Words:

- Polygon (triangle, rectangle, square, quadrilateral, parallelogram, trapezoid, pentagon, hexagon, octagon)
- Angle degrees, Acute Angle, Obtuse Angle, Right Angle
- Diameter, Radius, Circumference
- Construct, Protractor, Compass
- Relationship
- Vertex, Line, Angle, Ray
- Attributes, Lateral faces, Bases,
- Parallel, Perpendicular, Intersecting

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What will Fifth Graders learn this quarter?

Our Focus: Math 6 Unit 1- Graphing Data and Analyzing

8/29/11–10/28/11 Quarter 1

What questions do we ask ourselves?

- What is the purpose of displaying data?
- How does the selection of a sample affect conclusions based on the sample?
- How can the data representation influence conclusions?
- How does the selection of a sample affect conclusions based on the sample?
- Which measure of central tendency is most appropriate in a given situation?

How will we learn these things?

- ✓ By conducting and using the results of simple statistical investigations to answer a question.
- ✓ By identifying and comparing different ways of selecting a sample.
- ✓ By interpreting, organizing, and displaying data, with and without technology, using various formats, including frequency tables and circle graphs.
- ✓ By recognizing and identify the misuses of statistical and numerical data.
- ✓ By analyzing the effect a change of scale will have on a graph.
- ✓ By analyzing and interpret data using various formats, including frequency tables.
- ✓ By selecting and justify mean, median, or mode of a data set as the best representation of data.
- ✓ By analyzing why the way in which data is displayed might influence the conclusion reached.
- ✓ By constructing convincing arguments to support conclusions based on analysis of data and interpretation of graphs.

What resources will we use?

- | | | |
|---------------------------|-------------------------|----------------|
| ▪ Function Tables | ▪ Graph Paper | ▪ Calculators |
| ▪ Computers | ▪ Super Source | ▪ Number Sense |
| ▪ Glencoe Math Text Books | ▪ Formative Assessments | ▪ Exit Cards |

Why are we learning this?

- To be able to use data to make predictions.
- To recognize and analyze misleading data.
- To read, analyze and construct data displays.
- To conduct a fair experiment using random samples.
- To determine the measures of central tendency.

Vocabulary Words:

- | | | |
|------------------------|--------------------------------|--------------------------|
| ❖ Statistics | ❖ Frequency Tables | ❖ Scales |
| ❖ Intervals | ❖ Interpret | ❖ Misleading |
| ❖ Compare | ❖ Analyze | ❖ Construct |
| ❖ Box and Whisker Plot | ❖ Measures of Central Tendency | ❖ Mean, Median, and Mode |
| ❖ Bar Graph | ❖ Line Graph | ❖ Circle Graph |

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What will Fifth Graders learn this quarter?

Our Focus: Math 6 Unit 2A- Decimal Operations and Applications

8/29/11–10/28/11 Quarter 1

What questions do we ask ourselves?

- What are specific units and tools used to measure different attributes?
- What determines a reasonable estimation for a given situation?
- What is the purpose of estimations?
- How do operations with decimals compare to operations with whole numbers?
- How can estimations skills and algorithms reinforce one another?

How will we learn these things?

- ✓ By selecting tools and units to measure accurately in given situations.
- ✓ By comparing, converting, and estimating units of measure of length, time, weight, mass, capacity, and volume within the same measurement system.
- ✓ By comparing relative sizes of both customary and metric units.
- ✓ By using estimation and mental math to solve problems with fractions, decimals, and percents, explaining the reasoning involved.
- ✓ By adding, subtracting, multiply, and dividing with decimals and fraction, including mixed numbers, expressing answers in simplest form.

What resources will we use?

- | | | |
|---------------------------|-------------------------|----------------|
| ▪ Place Value Chart | ▪ Hot Topics | ▪ Calculators |
| ▪ Computers, Brainpop | ▪ Super Source | ▪ Number Sense |
| ▪ Glencoe Math Text Books | ▪ Formative Assessments | ▪ Exit Cards |
| ▪ Rulers | ▪ Conversation Chart | ▪ Flash Cards |

Why are we learning this?

- To be convert units of measurement using both metric and customary.
- Select the appropriate unit of measure to use when measuring objects.
- Add, subtract, and multiply decimals.
- Put decimals on the correct location on a number line.

Vocabulary Words:

- | | | |
|----------------|-------------------|--------------------|
| ❖ Comparing | ❖ Estimating | ❖ Sums/Differences |
| ❖ Metric Units | ❖ Customary Units | ❖ Simplify |
| ❖ Product | ❖ Equations | ❖ Quotient |
| ❖ Integers | ❖ Mass | ❖ Capacity |

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Developed by: CES fifth grade team, 2010

What will Fifth Graders learn this quarter?

Our Focus: Causes of the Declaration and the Revolutionary War. Working for Change

8/29/11–10/28/11 Quarter 1

What questions do we ask ourselves?

- How do documents support the structure and function of government and why are they important?
- What principles are expressed in the fundamental documents that define our form of government?
- How does conflict create change
- Is change more effective if enacted from inside or outside of an existing social structure?

Why are we learning this?

- To explain how social, economic, and political conflict can change the roles of citizens and existing structures of political systems.
- To be aware that citizens can pursue change by many means.
- To understand the foundation of these beliefs were laid with the ideas and events surrounding the American Revolution.
- To understand that for more than 200 years the political system borne of the revolution has provided many means for change.

How will we learn these things?

- Examine historical documents
- Evaluate the critical political, social, and economic issues and events that led to the American Revolution
- Describe the people and events associated with drafting and signing the Declaration of Independence.
- Explain the right and responsibilities of being a citizen of the US
- Explain the importance of civic participation as a citizen of the US
- Analyze the turning points in the Revolutionary War
- Explain how taxes finance government operations and provide public goods and services

Vocabulary Words:

- | | | |
|---------------------------|---------------------|---------------|
| ● Revolution | ● Government | ● Tories |
| ● Rights | ● Petition | ● Musket |
| ● Responsibilities | ● Political Process | ● Taxes |
| ● Citizen | ● Symbol | ● Declaration |
| ● Democracy | ● Patriot | ● Grievances |
| ● Compromise/
Conflict | ● Red Coat | |

What resources will we use?

- | | |
|------------------------|--------------------|
| ● Graphic Organizers | ● Atlases |
| ● History Alive | ● United Streaming |
| ● Historical Documents | |
| ● Maps | |

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What Will Fifth Graders Learn This Quarter?

Our Focus: Force, Motion & Energy

8/29/11–10/28/11 Quarter 1

Measurement Topics

Generating Scientific Evidence

Participating Productively In Science

Reflecting On Scientific Knowledge

Understanding Scientific Explanations

What will we learn?

- How to describe an object's change in motion
- What causes an object to change its motion
- How to identify energy in various mechanical systems
- How humans use stored energy from Earth's natural resources

Why are we learning this?

- To describe an objects motion using distance, time, direction, and speed
- To learn that change in mass and force affects an object's motion
- To learn that energy exists in various forms in mechanical systems
- To learn that energy is stored in the Earth's natural resources and can be converted to energy of motion

How will we learn these things?

- By conducting various experiments/investigations
- By using technology to reinforce concepts
- By reading informational text
- By collecting and evaluating data

Vocabulary Words:

- Force
- Energy (Potential and Kinetic)
- Mass
- Frame of Reference
- Motion (Variable, Periodic, Uniform)
- Gravity
- Friction
- Velocity
- Natural Resources

What resources will we use?

Discovery Education

Science Kit Materials

Pendulums

Diagrams

Science Textbooks

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What will Fifth Graders learn this quarter?

Our Focus: Collage- Art can document feelings, opinions, facts and reactions to historical events. Collage can tell stories and events that happen in history.

Quarter 1
8/30/10—10/29/10

What questions do we ask ourselves?

- How do artists choose a theme for their work?
- How do artists communicate through their artwork?
- How can artwork reflect social and historical issues?

How will we learn these things?

- Studying Jacob Lawrence and the migration of 1.3 million African-Americans from the Southern U.S. to the North.
- Using mixed media
- Discussing the human experience through the study of Lawrence's work.

What resources will we use?

- We will look at artwork by Jacob Lawrence, Romare Bearden, and Faith Ringold.
- We will also use teacher samples.

Why are we learning this?

- To better understand the Great Migration.
- To better understand the migration of all who have arrived in America, with an emphasis on Jacob Lawrence.
- To learn about composition and the art of collage.
- To learn to critique for understanding.

Vocabulary Words:

- Collage
- Arrange
- Composition
- Foreground
- Background
- Middle Ground
- Overlapping
- Mixed Media

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Developed by: CES Art Teacher, 2010

What will Fifth Graders learn this quarter?

Our Focus: Analyze music: Identify form, theme and variation. Perform a chordal accompaniment with an instrument for a song.

8/29/11—10/28/11 **Quarter 1**

What questions do we ask ourselves?

- What is a chord?
- What is accompaniment?
- How does is rhythm used to accompany melody?
- What is a theme?
- What is variation?
- What is form?

Why are we learning this?

- To gain a better understanding how music is organized.
- Develop the ability to accompany songs and singers.
- Improve critical listening skills.
- Improve the ability to analyze music visually and aurally.

How will we learn these things?

- Perform music of various styles and cultures.
- Play instruments capable of playing chords to accompany singing.
- Listen to music of various styles and cultures to identify theme and form.

Vocabulary Words:

- | | |
|----------------|------------|
| *Chord | *Variation |
| *Accompaniment | *Form |
| *Beat | *Analyze |
| *Rhythm | *Melody |
| *Key | *Theme |

What resources will we use?

- We will use various instruments: Autoharp, ukulele, xylophone, recorder, and piano.
- Recorded music for analysis.

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What will Fifth Graders learn this quarter?

Our Focus: Health-Related Fitness Components **Shooting with hands and feet**

8/29/11–10/28/11

Quarter 1

What questions do we ask ourselves?

- Why is it important to learn how to shoot a ball with your hands from different spots on the court?
- Why is it important to learn how to dribble a ball with your feet into a position before shooting at a target?
- Why is it important to learn about concepts and terms related to maintaining ones personal health?

How will we learn these things?

- Students will practice how to hold a ball in their hands, and shoot it towards a goal.
- Students will practice shooting a soccer ball at a goal from different spots on the field.
- Students will participate in a variety of different activities to help enhance their understanding of health and fitness components.

What resources will we use?

Basketballs, playground balls, soccer balls, goals, pencils, clipboards, construction paper cones

Why are we learning this?

- To learn how to shoot a ball with your hands.
- To learn how to shoot a ball with your feet.
- To learn ways to maintain cardio-vascular health, flexibility, and muscular strength.

Vocabulary Words:

- aerobic
- flexibility
- muscular strength
- heart rate
- fatigue, warm-up
- cool down
- fitness
- injury
- dehydration.

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Developed by: CES PE Teacher, 2010

What will Fifth Graders learn this quarter?

Our Focus: Using the Media to support Independent Reading Goals and Genre Studies

8/29/11–10/28/11 **Quarter 1**

What questions do we ask ourselves?

- How do I select a book for Independent reading?
- What genre do I think I like to read? What are the characteristics of that genre?
- What are the characteristics of historical fiction?
- How does historical fiction mix history and fiction?
- How can the characteristics of Historical Fiction help me understand what I have read?
- What strategies can I use to select a good informational book?
- What were the important documents in our country's history?

How will we learn these things?

- Setting reading goals
- Identify the elements of historical fiction
- Review Patron's catalog

What resources will we use?

Fiction genre books	BrainPOP
United Streaming	Graphic Organizers
Websites	Online Resources
Historical Fiction	Historical Document
Maps	Atlases

Why are we learning this?

- I will think/reflect about what I am reading and how reading goals can support my reading habits and help me improve as a reader.
- I can make good choices about books that interest me.
- I can understand history by reading historical fiction and by evaluating them critically.
- To be aware about citizenship and understand the foundation of our country's beliefs.

Vocabulary Words:

- | | |
|--------------|---------------------|
| *Genre | *Fantasy |
| *Mystery | *Folktales |
| *Fables | *Historical Fiction |
| *Predict | *Question |
| *Clarity | *Summarize |
| *Revolution | *Government |
| *Declaration | *Democracy |

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