

1st Grade Math Overview 2022 - 2023

This document is designed provide parents/guardians/community an overview of the curriculum taught in the FBISD classroom. This document supports families in understanding the learning goals for the course, and how students will demonstrate what they know and are able to do. The overview offers suggestions or possibilities to reinforce learning at home.

Included at the end of this document, you will find:

- A [glossary](#) of curriculum components
- The content area [instructional model](#)
- [Parent resources](#) for this content area

To advance to a particular grading period, click on a link below.

- [Grading Period 1](#)
- [Grading Period 2](#)
- [Grading Period 3](#)
- [Grading Period 4](#)

At Home Connections

The following are suggestions for reinforcing literacy/numeracy development at home. These ideas can be used throughout the school year. You will find additional ideas to reinforce learning at home within each unit below.

- *Engage students in problem solving during day-to-day decisions and reasoning through outcomes of decisions*
- *Explaining order or process to completing day to day tasks*
- *Encourage students to justify choices made in day-to-day activities*
- *Discuss scenarios involving math in everyday life and determine the operations needed to solve the problem*
- *Play games that require logic and reasoning skills or counting forwards and backwards.*

Process Standards

The process standards describe ways in which students are expected to engage in the content. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use knowledge learned efficiently and effectively in daily life.

- 1.1A apply mathematics to problems arising in everyday life, society, and the workplace
- 1.1B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution
- 1.1C select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems
- 1.1D communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate
- 1.1E create and use representations to organize, record, and communicate mathematical ideas
- 1.1F analyze mathematical relationships to connect and communicate mathematical ideas
- 1.1G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Grading Period 1

Unit 1: Launching Mathematical Mindsets

Estimated Date Range: 8/10/22 – 9/2/22

Estimated Time Frame: 18 days

Unit Overview: This unit begins with 8 days of Launching Mathematical Mindsets. Students will engage in activities that support setting up the systems and structures needed to promote mathematical communication and collaboration in a face to face or virtual environment. Students will then learn about telling time and telling time to the hour on a digital or analog clock. Students will also demonstrate understanding of numbers 16-20 that were learned in Kindergarten during online learning in spring 2020.

At home connections:

- Use positive affirmations to build students self-confidence
- Talk about their favorite parts of the day and whether they occur during the morning, afternoon, or night
- Have students match times on an analog and digital clock
- Read, Write, and Represent numbers 16-20.

Concepts within Unit #1 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Launching Mathematical Mindsets		In this unit we are Launching Mathematical Mindsets using You Cubed resources along with supports for setting up systems and structures that support communication, collaboration, and problem solving in a virtual or face to face environment. The focus is on students getting used to routines and tools while engaging in math related activities that promote sense making, perseverance, and teamwork.
Concept #1: Results Unknown and Comparing Sets-Add and Subtract	Competency 1 Competency 3	In this unit students will solve word problems with results unknown involving joining, separating, and comparing sets using objects, pictorial representations, and fact strategies (e.g. making 10, doubles, compensation).

Unit 2: Skip Counting and Patterns

Estimated Date Range: 9/6/22 – 9/30/22

Estimated Time Frame: 18 days

Unit Overview: In this unit students will expand their knowledge of reciting numbers from 0-100 by ones and tens from kindergarten. Students will interact with hundreds' charts using counters or small manipulatives to identify patterns and skip count by 2s, 5s, and 10s. In conjunction students will practice skip counting sets of objects by bundling popsicle sticks/joining cubes in sets of 2, 5, and 10 to determine the total number of objects in a set. Students will then identify the value of a penny, nickel, dime, and quarter, understand the relationship between them, and represent their values using the cent symbol. Then they will apply their knowledge of skip counting on a hundreds' chart and the value of coins to determine the total value in a set of coins up to one dollar.

At home connections:

- Count a collection of pennies, dimes, and nickels up to one dollar starting with different coins each time.
- Gather craft sticks or straws and group them by 2s, 5s, or 10s to practice skip counting.

- Use real world scenarios to practice skip counting e.g., number of fingers in your family, number of eyes in the room, etc.
- Count forwards and backwards up to 99 starting at any given number.

Concepts within Unit #2 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #1: Skip Counting 1.2A, 1.5A, 1.5B, 1.5C		• Recognize instantly the quantity of structured arrangements. • Recite numbers forward and backward from any given number between 1 and 99. • Skip count to determine the total number of objects up to 120 in a set ○ Twos ○ Fives ○ Tens • Determine the number that is 10 more and 10 less than a given number up to 99.
Concept #2: Patterns in Money 1.4C, 1.4A, 1.4B	Competency 1 Competency 2	• Identify U.S. coins, including pennies, nickels, dimes, and quarters. • skip count to determine the set value of coins ○ pennies by twos ○ nickels by fives ○ dimes by tens • count a collection of coins using skip counting strategy (not quarters) ○ same coins ○ different coins • Write the number with the cent symbol to describe the value of a coin.

Unit 3: Numeration (0 – 99)

Estimated Date Range: 10/3/22 – 11/4/22

Estimated Time Frame: 23 Days (5 Days in GP1 and 18 Days in GP2)

Unit Overview: In this unit, students will develop an understanding of how to represent, compose, and decompose numbers in multiple ways up to 99. The focus is understanding tens and ones and the relationship between the digits location and their value within a 2-digit number. Students will then apply their understanding of tens and ones and patterns from Unit 2 to compare numbers and generate numbers that are more than or less than a given number.

At home connections:

- Use real world situations with numbers up to 99 and compare the numbers (e.g., determine whether one color of blocks is more or less than another color of blocks. Count the blocks to justify the answer.)
- Use craft sticks or straws to bundle groups of ones to make ten, then skip count by 10.
- Find numbers around the house use objects to build the number in tens and ones.
- Look at groups of objects or pictures and determine which one has more or less of something without counting.

Concepts within Unit #3 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #1: Numeration 1.2B, 1.2A, 1.2C, 1.5A, 1.5B	Competency 1 Competency 2	- Recognize instantly the quantity of structured arrangements. - Use various forms to represent numbers up to 99 - objects - pictures - standard - Recite numbers forward and backward from any given number between 1 and 99. - Skip counts by fives and tens to determine the total number of objects up to 99 in a set - Compose and decompose numbers up to 99 in more than one way - Objects - pictures
Grading Period 2 Unit 3: Numeration (0 – 99) (Continued) Estimated Date Range: 10/3/22 – 11/4/22 Estimated Time Frame: 23 Days (5 Days in GP1 and 18 Days in GP2)		
Unit Overview: In this unit, students will develop an understanding of how to represent, compose, and decompose numbers in multiple ways up to 99. The focus is understanding tens and ones and the relationship between the digits location and their value within a 2-digit number. Students will then apply their understanding of tens and ones and patterns from Unit 2 to compare numbers and generate numbers that are more than or less than a given number. At home connections: - Use real world situations with numbers up to 99 and compare the numbers (e.g. determine whether one color of blocks is more or less than another color of blocks. Count the blocks to justify the answer.) - Use craft sticks or straws to bundle groups of ones to make ten, then skip count by 10. - Find numbers around the house use objects to build the number in tens and ones. - Look at groups of objects or pictures and determine which one has more or less of something without counting.		
Concepts within Unit #3 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #2: Comparing and Ordering Numbers 1.2G, 1.2B, 1.2C, 1.2D, 1.2E, 1.5C	Competency 1 Competency 2	- Generate a number that is greater than or less than a given whole number - use symbols to represent the comparison of two numbers in a real-world context - order whole numbers using place value and open number lines in a real-world context
Unit 4: Addition & Subtraction Estimated Date Range: 11/7/22 – 12/16/22 Estimated Time Frame: 25 Days		

Unit Overview: In this unit students will build an understanding of different structures of word problems involving joining, separating, and comparing. Students will use objects and pictorial models to represent the actions of a problem, generate solutions, explain their strategies, and develop basic fact strategies for future grade levels. They will explore the different types of problems starting with results unknown, moving to start unknown, then change unknown, and at the end of the unit be able to use objects and pictorial models to solve a variety of addition and subtraction word problems.

At home connections:

- Identify places where you see different number combinations or addition/subtraction situations around you. e.g., we started the week with 15 granola bars, how many do we have now? How many have we eaten?
- Use toys and other small objects to model addition and subtraction problems and explain their story as they model.

Concepts within Unit #4 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #1: Start Unknown Word Problems 1.3B, 1.5D, 1.3D, 1.3E, 1.5E, 1.5G	Competency 1 Competency 3	• Represent and solve word problems involving addition with start unknown using ○ objects ○ pictures ○ number sentence • Represent and solve word problems involving subtraction with start unknown using ○ objects ○ pictures ○ number sentence
Concept #2: Change Unknown Word Problems 1.3B, 1.5D, 1.3D, 1.3E, 1.5E, 1.5G	Competency 1 Competency 3	• Represent and solve word problems involving addition with change unknown using ○ objects ○ pictures ○ number sentence • Represent and solve word problems involving subtraction with change unknown using ○ objects ○ pictures ○ number sentence
Concept #3: Mixed Problem Solving 1.3B, 1.5D, 1.3D, 1.3E, 1.5E, 1.3F, 1.5G	Competency 1 Competency 3	Mixed Problems from Concept 1 – Concept 3 • Represent and solve word problems involving addition and subtraction using objects, pictures, and number sentences ○ Results unknown ○ Comparing sets ○ Start Unknown ○ Change Unknown

Grading Period 3

Unit 5: 2-D and 3-D Shapes

Estimated Date Range: 1/5/23 – 1/27/23

Estimated Time Frame: 16 Days

Unit Overview: In this unit students will identify, create, classify and sort 2-D shapes. They will determine attributes that define 2-D shapes and compose 2-D shapes by joining more than one shape to produce a target shape. They will then be introduced to the idea of a fraction by partitioning 2-D shapes into fourths and halves and understanding fair shares. The end of the unit includes identifying and naming 3-D figures and distinguishing between attributes that define a 3-D figure and attributes that define a 2-D shape.

At home connections:

- Go on a scavenger hunt around the house to identify 2-D and 3-D figures, name them, and describe their attributes.
- Use cakes, pizzas, and other rectangular or circular items to help students identify fair shares or equal parts with halves and fourths.

Concepts within Unit #5 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #1: 2-D Shapes 1.6B, 1.6A, 1.6C, 1.6D, 1.6F	Competency 1 Competency 4	• distinguish between attributes that define and do not define a two-dimensional shapes • identify two-dimensional shapes ○ circles ○ triangles ○ rectangles ○ squares as special rectangles ○ rhombuses ○ hexagons • classify and sort regular and irregular two-dimensional shapes based on attributes • compose two-dimensional shapes by joining two, three, or four shapes to produce a target shape • create two-dimensional shapes based on attributes
Concept #2: 3-D Figures 1.6B, 1.6E	Competency 1 Competency 4	• identify three-dimensional figures and describe ○ spheres ○ cones ○ cylinders ○ rectangular prisms (including cubes) ○ triangular prisms • describe the attributes of three-dimensional figures ○ vertex ○ edge ○ number of faces ○ types of faces (rectangular, circular, etc.)

		distinguish between attributes that define and do not define a three-dimensional figure
Unit 6: Numeration (0 – 120) Estimated Date Range: 1/30/23- 2/16/23 Estimated Time Frame: 14 Days		
Unit Overview: In this unit students will continue to develop place value understanding by bundling objects into groups of ten and one hundred. Students will continue to compose and decompose number using objects and pictures to deepen their understanding of the relationships within place value as well as support a foundation for flexibility in operations for future grades. In this unit students will compare numbers, represent numbers on a number line, and order numbers all up to 120. They will generate a number more than or less than another number and solve problems involving 10 more, 10 less than a number. At home connections: - Use real world situations with numbers up to 99 and compare and order the numbers (e.g. determine whether one color of blocks is more or less than another color of blocks. Count the blocks to justify the answer.) - Use craft sticks or straws to bundle groups of ten ones to make ten, and ten tens to make one hundred. - Find numbers around the house use objects to build the number in hundreds, tens, and ones. - Look at groups of objects or pictures and determine which one has more or less of something without counting.		
Concepts within Unit #6 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #1: Numeration 1.2B, 1.2C	Competency 1 Competency 2	- Use various forms to represent numbers up to 120 - objects - pictures - expanded form - standard form - Compose and decompose numbers up to 120 in more than one way - objects - pictures
Concept #2: Compare and Order Numbers 1.2G, 1.2F, 1.2C, 1.2A, 1.2D, 1.2E, 1.5A, 1.5B, 1.5C, 1.3A	Competency 1 Competency 2	- Use symbols to represent the comparison of two numbers in a real-world context - Order whole numbers using place value and open number lines in a real-world context
Unit 7: Personal Financial Literacy and Data Analysis Estimated Date Range: 2/21/23 - 3/24/23 Estimated Time Frame: 19 Days		
Unit Overview: In this unit students will define money as earned income and a way to obtain goods and services. Students will also be introduced to the ideas of spending vs. Saving and charitable giving. Students will apply those situations as well as other real-world situations to collect, sort, and analyze data in up to three categories. They will		

use data to create picture and bar-type graphs as well as draw conclusions from graphs. Students will also be able to generate and answer questions using information in the created graphs or graphs that are given to them.

At home connections:

- Identify times when you are spending money on needs versus wants
- Discuss opportunities to earn income, have a lemonade stand, or garage sale
- Find data based on a topic of interest sort and organize the data into categories
- Create bar-type graphs to represent friends' or family's favorite colors, favorite foods, shoe size etc.

Concepts within Unit #7 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #1: Personal Financial Literacy 1.9A, 1.9B, 1.9C, 1.9D		• Define money earned as income. • Identify income as a way to obtain goods and services (also having to make choices between wants and needs). • Distinguish between spending and saving • Explain and consider charitable giving
Concept #2: Drawing Conclusions from Graphs 1.8B, 1.8A, 1.8C	Competency 1 Competency 6	• Collect, sort, and organize data with three categories using tally marks and charts ○ determine a label for each category ○ describe similarities and differences to justify groupings • Use data to create ○ picture graphs ○ bar graphs • Generate and answer questions from picture graphs and bar graphs • Draw conclusions from picture graphs and bar graphs ○ use comparative language to describe different sets of data within the same graph ○ summarize the data to draw a conclusion from the data within the graph

Grading Period 4

Unit 7: Personal Financial Literacy and Data Analysis (Continued)

Estimated Date Range: 2/21/23 - 3/24/23

Estimated Time Frame: 19 Days

Unit Overview: In this unit students will define money as earned income and a way to obtain goods and services. Students will also be introduced to the ideas of spending vs. Saving and charitable giving. Students will apply those situations as well as other real-world situations to collect, sort, and analyze data in up to three categories. They will use data to create picture and bar-type graphs as well as draw conclusions from graphs. Students will also be able to generate and answer questions using information in the created graphs or graphs that are given to them.

At home connections:

- Identify times when you are spending money on needs versus wants
- Discuss opportunities to earn income, have a lemonade stand, or garage sale
- Find data based on a topic of interest sort and organize the data into categories
- Create bar-type graphs to represent friends' or family's favorite colors, favorite foods, shoe size etc.

Concepts within Unit #7 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #2: Drawing Conclusions from Graphs 1.8B, 1.8A, 1.8C	Competency 1 Competency 6	• Collect, sort, and organize data with three categories using tally marks and charts ○ determine a label for each category ○ describe similarities and differences to justify groupings • Use data to create ○ picture graphs ○ bar graphs • Generate and answer questions from picture graphs and bar graphs • Draw conclusions from picture graphs and bar graphs ○ use comparative language to describe different sets of data within the same graph ○ summarize the data to draw a conclusion from the data within the graph
Unit 8: Addition and Subtraction Estimated Date Range: 3/27/23 - 5/3/23 Estimated Time Frame 26 Days		
Unit Overview: Students will reenforce skills learned for adding and subtracting in grading period 2. They will also begin to generate problems for a corresponding number sentence as well as solve problems for addition and subtraction where there are multiple terms (e.g. $2+5+10=?$ Or $2+5+?=17$). The goal in this unit is to ensure a solid foundation for basic number operations and develop fluency with a variety of strategies to support fluency for all operations in future grade levels. At home connections: • Identify places where you see different number combinations or addition/subtraction situations around you. e.g. we started the week with 15 granola bars, how many do we have now? How many have we eaten? • Use toys and other small objects to model addition and subtraction problems and explain their story as they model. • Have students generate as many addition statements as they can that equal a certain number.		
Concepts within Unit #8 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept

Concept #1: Addition and Subtraction Mixed Problem Solving 1.3B, 1.5D, 1.3D, 1.3E, 1.3F	Competency 1 Competency 3	• Determine the number in an addition or subtraction equation when the unknown number may be any term with three or four terms. • Represent and solve word problems involving addition and subtraction using objects, pictures, and number sentences. ○ Results unknown ○ Comparing sets ○ Start Unknown ○ Change Unknown • Apply basic facts strategies to add and subtract within 20. • Explain strategies used to solve addition and subtraction problems using ○ spoken words ○ objects ○ pictures ○ number sentences • Generate and solve word problems when given a number sentence within 20. • Apply properties of operations to add and subtract two or three numbers.
Concept #2: Addition and Subtraction Mixed Problem Solving 1.5D, 1.5F, 1.3D, 1.3E, 1.3F, 1.5G	Competency 1 Competency 3	• Represent and solve word problems involving addition and subtraction using objects, pictures, and number sentences. ○ Results unknown ○ Comparing sets ○ Start Unknown ○ Change Unknown • Apply basic facts strategies to add and subtract within 20. • Explain strategies used to solve addition and subtraction problems using ○ spoken words ○ objects ○ pictures ○ number sentences • Generate and solve word problems when given a number sentence within 20. • Apply properties of operations to add and subtract two or three numbers.
Unit 9: Measurement Estimated Date Range: 5/4/23 - 5/25/23 Estimated Time Frame: 16 Days		

Unit Overview: In this unit students will start by solidifying their understanding of telling time to the nearest hour and half hour. Then students will use measuring tools to measure objects and describe the length of an object to the nearest whole unit when laid end to end with no gaps or overlaps. Students will also be able to measure the same object with two different size measuring tools and describe why the measurements differ.

At home connections:

- Use a variety of household objects to measure the length of items. Discuss why it takes fewer of one object than another to measure the same length.
- Have students match times on an analog and digital clock
- When getting in the car, about to eat dinner, going to bed etc. Ask what time it is to the nearest hour or half hour and explain how they know.

Concepts within Unit # 9 Link to TEKS	Competencies that will be graded in this unit	Success Criteria for this concept
Concept #1: Length and Time 1.7C, 1.7A, 1.7B, 1.7D, 1.7E	Competency 1 Competency 5	• Tells time to the hour and half hour on an analog. • Tells time to the hour and half hour on a digital clock. • Estimate whether time is closer to the hour or the half-hour using analog clock. • Use measuring tools to measure the length to reinforce the continuous nature of linear measurement. • Measures the same object or distance with units of two different lengths and describes how and why the measurements differ.

Glossary of Curriculum Components

Overview— The content in this document provides an overview of the pacing and concepts covered in a subject for the year.

TEKS – Texas Essential Knowledge and Skills (TEKS) are the state standards for what students should know and be able to do.

Unit Overview – The unit overview provides a brief description of the concepts covered in each unit.

Concept – A subtopic of the main topic of the unit.

Success Criteria—a description of what it looks like to be successful in this concept.

Competency—Standards-Based Grading communicates students’ understanding of the Texas Essentials Knowledge and Skills (TEKS). Using the TEKS, teachers developed grade-level competencies to communicate student progress in the Standards-Based gradebook. The competencies are the same for each grade-level content area (i.e. 1st grade math) across the district. Teachers report students’ progress on the competencies using learning progressions.

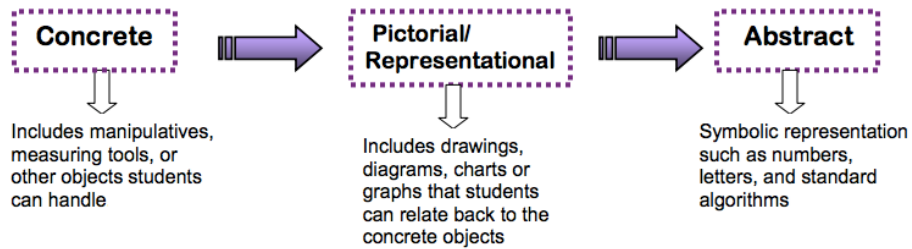
Parent Resources

The following resources provide parents with ideas to support students’ understanding. For sites that are password protected, your child will receive log-in information through their campus.

Resource	How it supports parent and students
Great Minds Eureka Math	This is the textbook for elementary school math. Click on the link for directions on accessing the textbook through clever.
Didax Virtual Manipulatives Math Learning Center Math Apps	These online resources provide access to virtual manipulatives.
Parent Resources from youcubed.org	This resource from youcubed.org includes articles for parents on ways to support their students in learning and understanding mathematics.
Student Resources from youcubed.org	This resource from youcubed.org includes videos concerning growth mindset in mathematics
Math: Why Doesn't Yours Look Like Mine?	This resource provides an explanation of why math looks different now as opposed to how parents learned mathematics and how to support students in learning mathematics.
Math4Texas	This resource breaks down grade level standards, provides example questions, vocabulary, and links to online resources for students aligned to the standards.
ST Math	ST Math is an online program that supports the development of elementary math skills through games and online practice. This resource is aligned to the TEKS and is computer adaptive, so it will adapt to the academic needs of the user.

Instructional Model

The structures, guidelines or model in which students engage in a particular content that ensures understanding of that content.



The instructional model for mathematics is the Concrete-Representational-Abstract Model (CRA).

The CRA model allows students to access mathematics content first through a concrete approach (“doing” stage) then representational (“seeing” stage) and then finally abstract (“symbolic” stage). The CRA model allows students to conceptually develop concepts so they have a deeper understanding of the mathematics and are able to apply and transfer their understanding across concepts and contents. The CRA model is implemented in grades K-12 in FBISD.