Grade 6 Math
Overview
2024-2025

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.

At Home Connections

The following are suggestions for reinforcing number sense and mathematical reasoning 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.

- Ask questions that require students to describe and elaborate on their thinking and reasoning. Topics can be about everyday things as well as mathematics.
- Engage students in situations that challenge them to inquire and persevere through questioning.
- Play card games with students.
- Play games with students such as Mancala, Yahtzee, Blokus, Rack-O, Mastermind, etc.
- Work number puzzles such as Sudoku, KenKen, Kakuro, or Numbrix.

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.

The student uses mathematical process to acquire and demonstrate mathematical understanding. The student is expected to:

- 6.1A Apply mathematics to problems arising in everyday life, society, and the workplace
- 6.1B 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
- 6.1C 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
- 6.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate
- 6.1E Create and use representations to organize, record, and communicate mathematical ideas
- 6.1F Analyze mathematical relationships to connect and communicate mathematical ideas
- 6.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Grading Period 1

Unit 1: Integer Operations

Estimated Date Range: Aug. 8 – Sept. 6
Estimated Time Frame: 21 days

Unit Overview:

In this unit, students develop a deeper understanding of numbers. Students will continue to use models and the number line to develop an understanding of integers, that numbers have opposites, and absolute value. Students will also use models and the number line to compare and order integers. Students will extend their knowledge of solving operation problems with whole numbers to problems with integers. Students will spend significant time modeling the operations in order to develop a conceptual understanding of the operations prior to developing an abstract procedure for operation of integers. Instruction will include contextual and real-world problems that allow students to reason through their work and justify the reasonableness of their solutions.

At home connections:

- Discuss real world situations for negative and positive numbers. (i.e temperature, sea level, account balances, etc.)
- Play integer war with a deck of cards. Integer war is played like the card game war, however each player plays two cards instead of one. The player with the largest sum wins the cards for the round. Black cards represents positive numbers and red cards represent negative numbers. (Could also be played with the largest difference or product.)

Concepts within Unit #1 **Link to TEKS**	**Success Criteria for this concept**
Establishing a Positive Math Community TEKS: 6.1A, 6.1B, 6.1C, 6.1D, 6.1E, 6.1G, 6.1G	• Demonstrate active listening skills while sharing in the community circle. • Make positive and supportive connections with my peers. • Engage in circle dialogues using the circle guidelines. • Share my math ideas and strategies when given a problem during the number sense routine. • Explain what a Respect Agreement is and why it is created. • Work in a group to solve a mathematical problem. • Describe strategies that I can use to solve math problems. • Provide feedback to peers using guidelines and protocol.
Concept #1: Integers and Absolute Value TEKS: 6.2B, 6.2C, 6.2D	• Graph a whole number and its opposite on a number line. • Discuss and identify the absolute value of an integer. • Define numbers that are zero pairs. • Explain how to compare integers on a number line by using < > symbols or words. • Write or say the order integers on a number line from least to greatest or greatest to least • Write or say the order of several integers that come from a real-world situation either greatest to least or least to greatest
Concept #2: Add and Subtract Integers TEKS: 6.3C, 6.3D, 6.7A, 6.7D	• Use models to represent integer operations • Apply my understanding of a zero pair when adding and subtracting integers. • Connect models to algorithms for integer operations. • Write an expression to represent a situation involving integers. • Use properties of operations to solve problems involving addition and subtraction of integers • Solve problems with mathematical and real-world context involving addition and subtraction of integers

Concept #3: All Operations of Integers TEKS: 6.2C, 6.2E, 6.3C, 6.3D, 6.7A	• Multiply and divide integers using a number line or concrete manipulative. • Discover a rule or pattern from the models and use that to create a rule for multiplying and dividing with integers. • Solve multiplication and division problems with integers. • Use models to represent integer operations • Connect models to the algorithms for integer operations. • Write an expression to represent a situation involving integers. • Use properties of operations to solve problems involving multiplication and division of integers • Solve problems with mathematical and real-world context involving multiplication and division of integers • Solve problems involving any operation for integers.

Unit 2: Rational Number Operations

Estimated Date Range: Sept. 9 – Oct. 9
Estimated Time Frame: 21 days

Unit Overview:

In this unit, students will continue to explore sets of numbers. Students will classify whole numbers, integers, and rational numbers by using visual representations such as a Venn Diagram to understand that there is a relationship between different sets of numbers. Students will build on their knowledge of ordering and performing operations on integers to include positive rational numbers (fractions and decimals). Students will build on their knowledge of comparing and ordering fractions with different numerators/denominators and decimals to the thousandths by using symbols and visual models to compare and order rational numbers. The students will continue to build on their skills of multiplying and dividing fractions and decimals by discovering algorithms, through exploration and modeling, for multiplying and dividing positive rational numbers.

At home connections:

- Discuss ways we use fractions and decimals in our everyday lives. (i.e cooking, money, etc.)
- Discuss and order objects that are measured in fractions and decimals. (i.e measuring cups, measuring spoons, wrenches, etc.)
- Take a recipe and determine the amount for each ingredient when the recipe is adjusted, such as by half or doubled.

Concepts within Unit # 2 **Link to TEKS**	**Success Criteria for this concept**
Concept #1: Understanding Rational Numbers TEKS: 6.2A, 6.2B, 6.2C, 6.2D, 6.2E, 6.4F	• Locate and graph a fraction and decimal and its opposite on a number line. • Compare rational numbers on a number line by using inequality symbols or words. • Order a set of rational numbers on a number line from least to greatest or greatest to least verbally and in writing. • Order a set of rational numbers that come from a real-world situation either greatest to least or least to greatest verbally and in writing. • Define rational numbers • Use a Venn Diagram or other visual organizer to show the relationships between sets and subsets of rational number
Concept #2: Multiplying Positive Rational Numbers TEKS: 6.2E, 6.3B, 6.3E, 6.4G, 6.7A, 6.7D	• Explain why a number increases or decreases in value when it is multiplied by a fraction. • Estimate fractions and mixed numbers to a whole number or halves to find a reasonable range of products. • Use a concrete model to solve problems involving multiplication of positive fractions and decimals • Use a pictorial model to solve problems involving multiplication of positive fractions and decimals

	• Make connections between models and algorithms for multiplying rational numbers. • Solve multiplication problems with positive fractions and/or decimals using the algorithms
Concept #3: Dividing Positive Rational Numbers TEKS: 6.2E, 6.3A, 6.3E, 6.7A, 6.7D	• Explain the connection between multiplying and dividing fractions. • Estimate quotients of fractions and mixed numbers to a whole number or halves to find a reasonable range of products. • Use models to solve problems involving division of positive fractions and decimals • Make connections to the using models and algorithms • Solve division problems with positive fraction and/or decimals using an algorithm

Grading Period 2

Unit 3: Ratios and Rates

Estimated Date Range: Oct. 16 – Nov. 8
Estimated Time Frame: 17 days

Unit Overview:

In this unit, students will develop proportional reasoning skills as they represent ratios with concrete models and begin to understand that ratios are multiplicative comparisons of two quantities describing the same attributes. Students will then work with rates as a comparison by division of 2 quantities having different attributes, such as miles and hours, dollars and pounds, etc. Students will use the foundation of applying mathematical process standards to select strategies and appropriate units to solve problems involving measurement. Students will use this foundation to master the concept of converting units within the different measurement systems and use proportions and unit rates to solve the problems. Once a sense of proportional relationships is developed, students will use quantitative and qualitative data to make predictions and comparisons of real-world problems. Students will use skills of unit fraction, writing a ratio as a fraction and writing equivalent ratios as a foundation to understand and master the concept of understanding ratios and proportional relationships.

At home connections:

- Discuss situations that involve ratios and rates, such as speed, price per product, etc.
- Have your student time themselves doing a task and ask them to determine their time to do the task a multiple of times. Ex: How long does it take to clean your room? How long will it take you to clean three rooms of the same size as your room?

Concepts within Unit #3 Link to TEKS	Success Criteria for this concept
Concept #1: Representing Ratios TEKS: 6.4C, 6.4E	• Represent a ratio using models • Represent a ratio using a fraction or decimal • Write ratios in multiple ways including as a fraction, written with the word "to", and with a colon • Use objects to represent part to part and part to whole ratio comparisons • Use models to determine equivalent ratios • Use a ratio table to determine equivalent ratios • Scale up and scale down to determine equivalent ratios • Find a multiplicative scale factor to determine equivalent ratios • Use a ratio to solve a real-world problem.
Concept #2: Understanding Rates TEKS: 6.4D, 6.4H	• Represent a rate as a quotient • Explain how a rate is a comparison of two quantities including providing examples of rates • Determine the rate in a given problem • Use a rate to convert within a measurement system including metric and customary
Concept #3: Applying Rates and Ratios to Solve Problems TEKS: 6.4B, 6.5A	• Compare different ratios or rates to determine which ratio or rate is greater, less, or better in context of the situation. • Use proportions to make predictions and comparisons involving ratios, rates of an unknown value • Predict and compare for a given part or whole, given an equivalent ratio or rate using a real-world word problem

Unit 4: Percentages

Estimated Date Range: Nov. 12 – Dec. 6
Estimated Time Frame: 14 days

Unit Overview:

In this unit, students will extend their knowledge of relating decimals and fractions to percentages as well as deepen their proportional reasoning skills. Students will represent percentages with concrete and pictorial models, such as 10x10 grids, strip diagrams and number lines, and use these representations and their understanding of proportions to develop an understanding of equivalent fractions, decimals, and percentages. Students will also use proportional reasoning to find either the part, the whole, or the percent, given the other two values and apply this skill to solve real world problems involving percentage such as problems with markups and markdowns, sales tax, total cost and simple interest.

At home connections:

- Discuss ways we use and see percentages in our lives, such as grades, food labels, taxes, etc.
- Have your student think about their daily schedule and determine what percentage of the time they spend on each activity. (i.e. what percent of their time is at school, doing chores, eating, sleeping, etc.)

Concepts within Unit #4 Link to TEKS	Success Criteria for this concept
Concept #1: Equivalent Forms of Fractions, Decimals, and Percent TEKS: 6.2E, 6.4E, 6.4F, 6.4G, 6.5C	• Use base 10 blocks to represent percents. • Use a 100s grid to represent percents and their equivalent fraction and decimal values. • Use strip diagrams to represent benchmark fractions and percents. • Represent percents on a number line. • Represent percents with strip diagrams that shows a part to whole relationship. • Represent equal parts of the same whole with a percent, fraction, and decimal. • Use concrete models to generate equivalent forms of fractions, decimals and percent. • Generate equivalent forms of fractions, decimals and percents using pictorial models. • Generate equivalent forms of fractions, decimals and percents using algebraic methods • Generate equivalent forms of fractions, decimals and percents in order to solve problems.
Concept #2: Percent Applications TEKS: 6.5B	• Use concrete and pictorial models to find the unknown value when the part, percent or the whole is given • Use an equation to find the unknown value when the part, whole or percent is given • Find the whole given the part and percent. • Find the part given the whole and the percent. • Find the percent given the part and the whole.

Unit 5: Multiple Representations (Continues in grading Period 3)

Estimated Date Range: Dec. 9- 20 and Jan. 9 – Jan. 28
Estimated Time Frame: 23 days

Unit Overview:

In this unit, students need to understand that there are multiple ways to represent a problem. Students will extend their knowledge of graphing ordered pairs (*x, y*) on the coordinate plane in quadrant 1, where *x* and *y* are positive whole numbers, to graphing ordered pairs in all four quadrants where *x* and *y* are rational numbers. Students will identify the independent and dependent variables from tables, graphs, and equations and explain their meanings in context of real-world situations. Students will explore the similarities and differences between additive $(y = ax)$ and multiplicative $(y = ax)$ relationships and apply this knowledge to represent linear relationships using tables, graphs, equations, and verbal descriptions.

At home connections:

- Discuss relationships that are additive (your brother is three years older than you, buy 1 get 2 free, etc) and relationships that are multiplicative (you save 4 times amount of money than your brother, each sandwich cost $2.50, etc.)
- Make a table of a multiplicative or additive relationship, then graph the relationship.

Concepts within Unit # 5 **Link to TEKS**	**Success Criteria for this concept**
Concept #1: Graphing on the Coordinate Plane TEKS: 6.6A, 6.6C, 6.11A	• Identify and label the four quadrants of the coordinate plane. • Locate and determine which quadrant or axis an ordered pair is located. • Graph ordered pairs of rational numbers. • Name the ordered pair that represents a graphed point on the coordinate plane. • Describe the relationship between points on a coordinate plane • Describe the independent and dependent variable for a graph in context of the situation • Explain the meaning of an ordered pair in real-world situations. • Graph a situation from a table or set of ordered pairs
Concept #2: Additive vs. Multiplicative TEKS: 6.4A, 6.4B, 6.5A, 6.6A	• Identify an additive relationship from a table, graph, verbal description, or equation. • Identify a multiplicative relationship from a table, graph, verbal description, or equation. • Identify similarities and differences between additive and multiplicative relationships given a graph, verbal descriptions, table and equation. • Use a graphic organizer, such as a Venn Diagram to compare the ways that additive and multiplicative relationships are alike and different.
Concept #3: Writing Equations and Translating Between Views TEKS: 6.4B, 6.6B, 6.6C	• Define the independent and dependent variables in a problem. • Write an equation that represents the relationship between the independent and dependent variables.

	• Represent linear relationship with verbal descriptions, tables, graphs, and/or equations. • Identify representations that describe the same relationship. • Use one representation to generate the other representations. • Understand how the parts of the equation $y = kx$ or $y = x + b$ are represented in each of the representations. • Solve problems that require representing a given situation using verbal descriptions, tables, graphs and/or equations.

Grading Period 3

Unit 5: Multiple Representations Continued

See Grading Period 2 for details

Unit 6: Equations and Inequalities

Estimated Date Range: Jan. 29 – Feb 27
Estimated Time Frame: 20 days

Unit Overview:

In this unit, students will extend their knowledge of using order of operations involving addition, subtraction, multiplication and division to include negative integers, parentheses and exponents. Students will use concrete models, pictorial models, order of operations, and properties of operations to generate equivalent expressions. Students will distinguish between an expression and equation in different forms. Students will develop a conceptual understanding of solving one-step equations and inequalities by using concrete models, manipulatives, and pictorial representations and use these models and representations to make connections to solving equations and inequalities using inverse operations. Students will determine if a given value makes an equation or inequality true and represent solutions on a number line. Students will write corresponding real-world problems given one-variable, one-step equations or inequalities and vice versa.

At home connections:

- Discuss how we use equations to solve everyday projects or topics. Ex: If you made $25 dollars babysitting for 3 hours, how much did you make per hour?; If your brother is 3 years older than you are how old will he be when you are 24 years old?

Concepts within Unit # 6 Link to TEKS	Success Criteria for this concept
Concept #1: Generating Equivalent Expressions TEKS: 6.7B, 6.7C, 6.7A, 6.7D	• Factor composite numbers and re-write in exponential form. • Expand exponent notation to generate and equivalent numeric value. • Identify when two numeric expressions are equivalent. • Find a single number solution for an expression with multiple steps using the order of operations. • Find equivalent expressions for multi-step problems. • Compare and contrast expressions and equations. • Write expressions from models. • Write expressions from verbal descriptions. • Find the value of an algebraic expression when given the value of the variables.

	• Generate equivalent numerical expressions using order of operations.
	• Use properties of arithmetic to generate equivalent numerical expressions from mathematical situations and real-world scenarios.
	  • Associative Property
	  • Commutative Property
	  • Distributive Property
	  • Identity Property
	  • Inverse Property
	• Use properties of algebra and arithmetic to generate algebraic expressions from mathematical situations and real-world scenarios.
	  • Associative Property
	  • Commutative Property
	  • Distributive Property
	  • Identity Property
	  • Inverse Property
	• Use models, pictures, and algebraic representations to determine if two expressions are equivalent.

Concept #2: Representing Equations and Inequalities TEKS: 6.9A, 6.9C	• Identify situations as equations or inequalities • Write a one-variable one step equation that represents a situation • Write a one-variable, one-step inequality that represents a situation • Write an equation or inequality verbally (I.e. two times the value of x minus 5 is greater than 3) • Create a situation when given a one-variable, one-step equation. • Create a situation when given a one-variable, one-step inequality
Concept #3: Solving Equations and Inequalities TEKS: 6.9B, 6.10A, 6.10B	• Explain (written or verbally) what a solution to an equation represents • Explain what a solution of an inequality represents • Model and solve a one-variable, one-step equation using manipulatives and models • Make connections between using models and inverse operations • Solve one-variable, one-step equations using inverse operations • Solve equations from real-world situations. • Graph solutions for an inequality on a number line • Model and solve one-variable, one-step inequalities • Explain and justify when to reverse the inequality symbol while solving an inequality • Solve a one-variable, one-step inequality from a real-world situation

	• Solve equations that represent geometric concepts including perimeter, area, measure of angle, supplementary angles and complementary angles.

Unit 7: Geometric Applications of Equations (Continues in Grading Period 4)

Estimated Date Range: Mar. 3 – Mar. 28
Estimated Time Frame: 15 days

Unit Overview:

In this unit, students will extend their knowledge of properties of triangles by exploring relationships that exist in triangles: sum of angles in a triangle, when three side lengths form a triangle, and the relationship between sides and angles in a triangle. Students will use prior knowledge of area, perimeter, and volume and knowledge of equations to model, develop formulas, and solve problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms.

At home connections:

- Discuss real world applications for area and volume.
- Determine the area or volume for objects that are in your house.

Concepts within Unit # 7 **Link to TEKS**	**Success Criteria for this concept**
Concept #1: Properties of Triangles TEKS: 6.8A, 6.10A	• Understand that the sum of the angles in a triangle is 180°. • Understand the relationship between the side lengths and angles of a triangle. • Determine when 3 angles form a triangle. • Find the missing angle in a triangle. • Use the relationship between sides and angles of a triangle to identify/label sides and angles of a triangle • Determine if three lengths could be the sides of a triangle.
Concept #2: 2D Measurement TEKS: 6.8B, 6.8C, 6.8D, 6.10A	• Decompose and rearrange parts of shapes to model area formulas of 2D shapes. • Relate the formulas for area of 2D shapes to the formulas for area of other 2D shapes. • Write an equation representing a problem situation involving area. • Use equations to find the area of a 2D shape. • Use equations to find a missing dimension of a 2D shape when given the area. • Interpret mathematical information related to area contained in a problem situation in order to write an equation representing the situation. • Write an equation to find missing dimension • Solve problems involving area. •
Concept #3: 3D Measurement TEKS: 6.8C, 6.8D, 6.10A	• Write an equation using information related to volume contained in a problem situation in order to write an equation representing the situation. • Understand that *B* in the volume formula is the area of the *Base* of the prism. • Write equations representing situations involving volume. • Use models to solve equations. • Create an equation that will solve for a missing dimension when given volume • Determine the volume of a rectangular prism.

	• Determine the missing dimension of a rectangular prism when given the volume. • Solve problems involving volume of right rectangular prisms.

Grading Period 4

Unit 7: Geometric Applications of Equations (Continued)

Estimated Date Range: Mar. 3 – Mar. 28
Estimated Time Frame: 15 days
See Grading Period 3 for details

Unit 8: Data and Statistics

Estimated Date Range: April 1 – May 9
Estimated Time Frame: 27 days

Unit Overview:

In this unit, students will use numerical and graphical summaries (mode, the percent of values in each category, and the percent bar graph) to summarize categorical data and use these summaries to describe the data distribution. Students will also use numerical summaries (mean, median, range, interquartile range) and graphical representations (dot plots, stem-and-leaf plots, histograms, and box plots) to summarize numeric data and use these summaries to describe the center, spread, and shape of the data distribution. Students will distinguish between situations that yield data with and without variability.

At home connections:

- Have students collect categorical data and create percent bar graphs to represent the data. Ex: survey their friends and family of their favorite color. Ask them questions and have them make predictions about the data.
- Have students collect numerical data and create a representation of the data using a dot plot, stem plot, histogram or box plot of the data. Ex: Survey their friends and family to determine how many they have of an object or their height. Ask them questions and have them make predictions about their data.

Concepts within Unit # 7 Link to TEKS	Success Criteria for this concept
Concept #1: Analyzing and Interpreting Categorical Data TEKS: 6.12D, 6.13B	• Create a frequency table to represent categorical data. • Create a relative frequency table to represent categorical data • Make connections between strip diagrams and percent bar graphs to create a stacked (or segmented) bar graph • Create a percent bar graph to represent categorical data where the bars are separate • Determine the mode of the data • Describe the variability, if any, in the data
Concept #2: Representing, Analyzing and Interpreting Numerical Data TEKS: 6.12A, 6.12B, 6.12C, 6.13A, 6.13B	• Create a dot plot, from numeric data • Create a stem-and-leaf plot from numeric data • Create a histogram from numeric data • Create a box plot from numeric data • Solve problems from graphical representations • Determine numerical summaries of data by calculating the mean, median, range and interquartile range (IQR) of the numeric data.

	• Describe the shape of a data distribution using vocabulary such as skewed, left skewed, right skewed, symmetrical and uniform • Describe the center of the data using median and mean • Describe the spread of the data using the range and the IQR • Describe the variability of the data • Solve problems from graphical representation

Unit 9: Financial Literacy

Estimated Date Range: May 12 – May 29
Estimated Time Frame: 13 days

Unit Overview:

In this unit, students will expand their understanding of personal finance. Students will develop an understanding of the cost associated with a checking account and the use of the debit card, which is a factor in choosing a bank. Students will learn the similarities and differences between debit cards and credit cards and experience balancing a checkbook register using their understanding of integer operations. Students will develop an understanding of the importance of establishing a positive credit history. Students will compare the annual salaries of different occupations and will explain the different way to pay for college. Students will take the skills learned and apply them to develop personal financial literacy.

At home connections:

- Discuss the difference between credit cards and debit cards.
- Have your student research where they want to go to college and how much it will cost.
- Have your student research different jobs they are interested and the income from this job.

Concepts within Unit # 7 Link to TEKS	Success Criteria for this concept
Concept #1: Credit Cards vs Debit Cards and Checking Accounts TEKS: 6.14A, 6.14B, 6.14C	• List features of credit cards. • List features of debit cards. • Compare and contrast credit cards and debit cards. • Understand checking account fees and features of a checking account. • Understand debit card fees and the connection to the checking account. • Identify withdrawals and deposits and record them on a check register • Balance a check register
Concept #2: Credit Reports TEKS: 6.14D, 6.14E, 6.14F	• Determine activities that lead to positive credit history and activities that lead to negative credit history. • Explain the length of time information is reported on a credit report • Explain how creditors use information on a credit report. • Explain how consumers use information on a credit report •
Concept #3: Paying for College & Jobs and Income TEKS: 6.14G, 6.14H	• Explain how scholarships pay for college • Explain how grants pay for college • Explain how work study pays for college • Explain how student loans pay for college

	• Explain how savings pays for college • Research jobs and record their education required and annual salary • Recognize the effect of salaries on lifetime income • Create a spreadsheet to compare calculated different annual salaries and the effects this has on a lifetime income.

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.

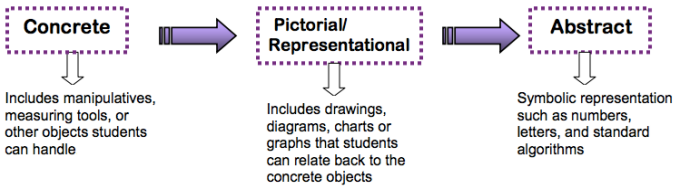
Parent Resources
The following resources provide parents with ideas to support students' understanding. For sites that are password protected, your child will receive log-in information through their campus.

Resource	How it supports parent and students
Open Up Resources – Family Resources (Grade 6)	This is a family resource for information regarding the content that is being covered in your student's math class. Please note the units do not align to the unit's in FBISD's curriculum, however the content aligns.
Didax Virtual Manipulatives Math Learning Center Math Apps Polypad: Mathigon – Virtual Manipulatives	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.

Supplemental Resource and Tool Designation:

- The TI Nspire CX calculator is a standardized technology integration tool used for Mathematics and Science in FBISD.

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.

Math Workshop:

During math instruction in grades K-8 in FBISD, we follow the Math Workshop structures. Instruction during a math class follows one of the three structures: Task and Share, Mini Lesson, Guided Math and Learning Stations, and Guided Math and Learning Stations. The structure that is used each day is determined by the content covered as well as student need.

<table>
<tr><th>Task and Share</th><th colspan="2">Mini Lesson, Guided Math and Learning Stations</th><th colspan="2">Guided Math and Learning Stations</th></tr>
<tr><td>Number Sense Routine</td><td colspan="2">Number Sense Routine</td><td colspan="2">Number Sense Routine</td></tr>
<tr><td rowspan="2">Math Task</td><td colspan="2">Mini Lesson</td><td rowspan="2">Guided Math</td><td rowspan="2">Learning Stations</td></tr>
<tr><td>Guided Math</td><td>Learning Stations</td></tr>
<tr><td>Task Share and Student Reflective Closure</td><td colspan="2">Student Reflective Closure</td><td colspan="2">Student Reflective Closure</td></tr>
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Number Sense Routine – An engaging accessible, purposeful routine to begin math class that promotes a community of positive mathematics discussion and thinking.

Math Task – A problem-solving task that students work on in small groups. The teacher monitors and probes student thinking through questions. The task should have multiple entry points, allowing for all students to have access to the problem.

Task Share with Student Reflective Closure – Students come together as a whole class and discuss the various strategies they used to solve a rich mathematical task. Students ask questions, clarify their thinking, modify their work, and add to their collection of strategies.

Mini Lesson – A well-planned whole group lesson focused on the day's learning intention and accessible to all levels of learners.

Guided Math – Small group instruction that allows the teacher to support and learn more about students' understandings and misconceptions. Can include intervention, more on-level support, or enrichment.

Learning Stations – Activity in which students engage in meaningful mathematics and are provided with purposeful choices. Could include individual, partner or group tasks.

Student Reflective Closure – A deliberate and meaningful time for students to reflect on what they've learned and experienced during a math task, at activities in learning stations, or in a guided math group.