**OFFICE OF CURRICULUM, INSTRUCTION & PROFESSIONAL DEVELOPMENT**

**ACADEMIC COURSE OUTLINE**

| | | | | | |
|---|---|---|---|---|---|
| **Department** | Mathematics | **Course Title** | Math 7 | **Course Code** | 3108 |
| **Grade Level** | 7 | **Short Title** | MATH 7 | **Course Length** | 1 year |
| **Teaching Credential(s)** | Teachers with any of these credentials are authorized to teach this course:<br>• Single Subject Credential in Mathematics (SS)<br>• Single Subject Credential in Foundational Mathematics (SSFM)<br>• Multiple Subject Credential or Single Subject Credential in content other than math, with a Single Subject Authorization in Introductory Mathematics (SMA) | | | **Required** | yes |
| | | | | **Elective** | no |

**COURSE OVERVIEW:**

In Grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

**EXPECTED OUTCOMES**

Students are expected to perform at a proficient level on a variety of tasks and assessments addressing the Common Core Standards for Mathematical Practice and the Common Core State Standards addressed in Math 7. Levels of proficiency are defined near the end of this course outline under Performance Criteria.

***Common Core State Standards for Mathematical Practice (SMP)***

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

***Common Core State Standards for Mathematical Content (CCSS-M)***

**Ratios and Proportional Relationships** **7.RP**

**7.RP.A Analyze proportional relationships and use them to solve real-world and mathematical problems.**

7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction $^{1/2}/_{1/4}$ miles per hour, equivalently 2 miles per hour.*

7.RP.2 Recognize and represent proportional relationships between quantities.

a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.

b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.

c. Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.*
d. Explain what a point (*x, y*) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, *r*) where *r* is the unit rate.

7.RP.3 Use proportional relationships to solve multistep ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.*

## The Number System 7.NS

**7.NS.A Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.**

7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged*.
b. Understand $p + q$ as the number located a distance $|q|$ from $p$, in the positive or negative direction depending on whether $q$ is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
c. Understand subtraction of rational numbers as adding the additive inverse, $p – q = p + (–q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
d. Apply properties of operations as strategies to add and subtract rational numbers.

7.NS.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (–1)(–1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If $p$ and $q$ are integers, then $–(p/q) = (–p)/q = p/(–q)$. Interpret quotients of rational numbers by describing real-world contexts.
c. Apply properties of operations as strategies to multiply and divide rational numbers.
d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.[1]

## Expressions and Equations 7.EE

**7.EE.A Use properties of operations to generate equivalent expressions.**

7.EE.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.

7.EE.2 Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, a + 0.05a = 1.05a means that "increase by 5%" is the same as "multiply by 1.05."*

**7.EE.B Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**

7.EE.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as

[1] Computations with rational numbers extend the rules for manipulating fractions to complex fractions.

appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. *For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.*

7.EE.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where $p$, $q$, and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*

b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where $p$, $q$, and $r$ are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. *For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.*

## Geometry 7.G

**7.G.A Draw, construct, and describe geometrical figures and describe the relationships between them.**

7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

7.G.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

7.G.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

**7.G.B Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.**

7.G.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

7.G.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.

7.G.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

## Statistics and Probability 7.SP

**7.SP.A Use random sampling to draw inferences about a population.**

7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.

7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. *For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.*

**7.SP.B Draw informal comparative inferences about two populations.**

7.SP.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability*. For example, the mean height of players on the basketball team is 10 cm*

*greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.*

7.SP.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations*. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.*

**7.SP.C Investigate chance processes and develop, use, and evaluate probability models.**

7.SP.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.

7.SP.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.*

7.SP.7 Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.

a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. *For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.*
b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. *For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?*

7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.

a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event.
c. Design and use a simulation to generate frequencies for compound events. *For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?*

## EXPECTED INTEGRATED OUTCOMES

(From the California Career Technical Education Model Curriculum Standards, adopted by the California State Board of Education in January, 2013)

Students are also expected to proficiently apply common skills that are relevant across curriculum areas and career pathways.

### *Standards for Career Ready Practice (CR)*

**1. Apply appropriate technical skills and academic knowledge.**

Career-ready individuals readily access and use the knowledge and skills acquired through experience and education. They make connections between abstract concepts with real-world applications and recognize the value of academic preparation for solving problems, communicating with others, calculating measures, and performing other work-related practices.

**2. Communicate clearly, effectively, and with reason.**
Career-ready individuals communicate thoughts, ideas, and action plans with clarity, using written, verbal, electronic, and/or visual methods. They are skilled at interacting with others: they are active listeners who speak clearly and with purpose, and they are comfortable with terminology that is common to workplace environments. Career-ready individuals consider the audience for their communication and prepare accordingly to ensure the desired outcome.

**3. Develop an education and career plan aligned with personal goals.**
Career-ready individuals take personal ownership of their educational and career goals and manage their individual plan to attain these goals. They recognize the value of each step in the educational and experiential process, and they understand that nearly all career paths require ongoing education and experience to adapt to practices, procedures, and expectations of an ever-changing work environment. They seek counselors, mentors, and other experts to assist in the planning and execution of education and career plans.

**4. Apply technology to enhance productivity.**
Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring and using new technology. They understand the inherent risks - personal and organizational - of technology applications, and they take actions to prevent or mitigate these risks.

**5. Utilize critical thinking to make sense of problems and persevere in solving them.**
Career-ready individuals recognize problems in the workplace, understand the nature of the problems, and devise effective plans to solve the problems. They thoughtfully investigate the root cause of a problem prior to introducing solutions. They carefully consider options to solve a problem and, once agreed upon, follow through to ensure the problem is resolved.

**6. Practice personal health and understand financial literacy.**
Career-ready individuals understand the relationship between personal health and workplace performance. They contribute to their personal well-being through a healthy diet, regular exercise, and mental health activities. Career-ready individuals also understand that financial literacy leads to a secure future that enables career success.

**7. Act as a responsible citizen in the workplace and the community.**
Career-ready individuals understand the obligations and responsibilities of being a member of a community and demonstrate this understanding every day through their interactions with others. They are aware of the impacts of their decisions on others and the environment around them, and they think about the short-term and long-term consequences of their actions. They are reliable and consistent in going beyond minimum expectations and in participating in activities that serve the greater good.

**8. Model integrity, ethical leadership, and effective management.**
Career-ready individuals consistently act in ways that align with personal and community-held ideals and principles. They employ ethical behaviors and actions that positively influence others. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the direction and actions of a team or organization, and they recognize the short-term and long-term effects that management’s actions and attitudes can have on productivity, morale, and organizational culture.

**9. Work productively in teams while integrating cultural and global competence.**
Career-ready individuals contribute positively to every team, as both team leaders and team members. To avoid barriers to productive and positive interaction, they apply an awareness of cultural differences. They interact effectively and sensitively with all members of the team and find ways to increase the engagement and contribution of other members.

**10. Demonstrate creativity and innovation.**
Career-ready individuals recommend ideas that solve problems in new and different ways and contribute to the improvement of the organization. They consider unconventional ideas and suggestions by others as solutions

to issues, tasks, or problems. They discern which ideas and suggestions may have the greatest value. They seek new methods, practices, and ideas from a variety of sources and apply those ideas to their own workplace practices.

**11. Employ valid and reliable research strategies.**
Career-ready individuals employ research practices to plan and carry out investigations, create solutions, and keep abreast of the most current findings related to workplace environments and practices. They use a reliable research process to search for new information and confirm the validity of sources when considering the use and adoption of external information or practices.

**12. Understand the environmental, social, and economic impacts of decisions.**
Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact other people, organizations, the workplace, and the environment. They are aware of and utilize new technologies, understandings, procedures, and materials and adhere to regulations affecting the nature of their work. They are cognizant of impacts on the social condition, environment, workplace, and profitability of the organization.

## COURSE CONTENT AND SUGGESTED TIME ALLOTMENT:

Content sequencing, activities, and time allocations are only suggestions and may be adjusted to suit school site curriculum plans, available materials, and student needs.

**Unit 1**: Operations with Rational Numbers

**Duration:** 34 days

**Description:**
Students continue to build an understanding of the number line in **Unit 1** from their work in 6th grade. Students convert between the fraction form to decimal form of a rational number using long division. They learn to add, subtract, multiply, and divide integers, while maintaining the properties of operations and the relationships between addition and subtraction, and multiplication and division. Students will then apply their understanding to perform the four operations on positive and negative rational numbers in the context of real-world situations.

**Required Assignment:**
**Adding and Subtracting Directed Numbers**
http://map.mathshell.org/lessons.php?unit=6125&collection=8
This lesson is intended to help students to Add and subtract directed numbers (positive, negative and zero) with understanding, address common misconceptions about the addition and subtraction of directed numbers, and explain their reasoning using diagrams. Before the lesson, students work individually on an assessment task designed to reveal their current understanding. The teacher then reviews their responses and creates questions for students to consider when improving their work. After a whole-class discussion that introduces the charge model for directed numbers, students work in small groups on two collaborative discussion tasks in which they match diagrams with calculations and produce missing diagrams for the remaining calculations. In a whole-class discussion, students discuss what they have learned. Finally, students revisit their initial work on the assessment task and work alone on a similar task to the introductory task.

**Suggested Activities:** See the Unit 1 Guide for Math 7.

**Materials:** Big Ideas MATH Course 2 text: Chapters 1 and 2

**Standards Addressed:** CCSS-M Clusters 7.NS.A, 7.EE.B

**Unit 2**: Expressions, Equations and Inequalities

**Duration:** 24 days

**Description:**
**Unit 2** consolidates and expands students' previous work with generating equivalent expressions and solving equations. They apply the properties of operations as strategies to factor and expand linear expressions with rational coefficients. They solve real-life and mathematical problems using numerical and algebraic expressions, equations and inequalities.

**Required Assignment:**
**Solving Linear Equations**
http://map.mathshell.org/lessons.php?unit=7220&collection=8
This lesson assesses how well students are able to form and solve linear equations involving factorizing and using the distributive law. In particular, this unit aims to help you identify and assist students who have difficulties using variables to represent quantities in a real-world or mathematical problem, and solving word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$. Before the lesson, students attempt the assessment task individually. The teacher then reviews students' responses and formulates questions that will help them improve their work. During the lesson, students work collaboratively in pairs or threes, matching equations to stories and then ordering the steps used to solve these equations. Throughout their work, students explain their reasoning to their peers. Finally, students again work individually to review their work and attempt a second task, similar to the initial assessment task.

**Suggested Activities:** See the Unit 2 Guide for Math 7.

**Materials:** Big Ideas MATH Course 2 text: Chapters 3 and 4

**Standards Addressed:** CCSS-M Clusters 7.EE.A, 7.EE.B

**Unit 3**: Graphing Proportional Relationships

**Duration:** 29 days

**Description:**
In **Unit 3**, students build on their $6^{th}$ grade experiences with ratios, unit rates, and fraction division to analyze proportional relationships. They decide whether two quantities are in a proportional relationship, identify constants of proportionality, and represent the relationship by tables, graphs, and equations.

**Required Assignment:**
**Classifying Proportion and Non-Proportion Situations**
http://map.mathshell.org/lessons.php?unit=7215&collection=8
This lesson assesses whether student are able to identify when two quantities vary in direct proportion to each other, distinguish between direct proportion and other functional relationships, and solve proportionality problems using efficient methods. Before the lesson, students work individually on a task designed to reveal their current levels of understanding. The teacher reviews their solutions and writes questions to help them improve their work. At the beginning of the lesson, there is a whole-class discussion about key features of direct proportionality. Students then work in small groups on a task related to the assessment task. They write and solve their own questions on direct proportion, exchange questions with another group, assess each other's work, and write suggestions for improvement. In a whole-class discussion, students share their questions and solution methods, generalizing to identify criteria for identifying direct proportion. In a follow-up lesson, students use their learning and your questions to review their work.

**Suggested Activities:** See the Unit 3 Guide for Math 7.

**Materials:** Big Ideas MATH Course 2 text: Chapter 5

**Standards Addressed:** CCSS-M Cluster 7.RP.A

**Unit 4**: Percents

**Duration:** 28 days

**Description:**
In **Unit 4**, students will extend their understanding of ratios and proportionality to solve a wide variety of percent problems. Problems in this unit include simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, and percent error.

**Required Assignment:**
**Increasing and Decreasing Quantities by a Percent**
http://map.mathshell.org/lessons.php?unit=7100&collection=8
This lesson assesses how well students are able to interpret percent increase and decrease and in particular, to identify and help students who have the following difficulties: 1) translating between percents, decimals, and fractions, 2) representing percent increase and decrease as multiplication, and 3) recognizing the relationship between increases and decreases. Before the lesson, students work individually on an assessment task that is designed to reveal their current understanding and difficulties. The teacher then reviews their work and creates questions for students to answer in order to improve their solutions. Students work in small groups on collaborative discussion tasks, to organize percent, decimal and fraction cards. As they do this, they interpret the cards' meanings and begin to link them together. They also try to find relationships between percent changes. Throughout their work, students justify and explain their decisions to their peers. Students return to their original assessment task and try to improve their own response.

**Suggested Activities:** See the Unit 4 Guide for Math 7.

**Materials:** Big Ideas MATH Course 2 text: Chapter 6

**Standards Addressed:** CCSS-M Clusters 7.RP.A, 7.EE. A, 7.EE.B

**Unit 5**: Geometry

**Duration:** 27 days

**Description:**
In **Unit 5,** students will begin to explore the concepts of congruency and similarity by investigating the relationships between angles formed by intersecting lines, constructing geometrical figures with given conditions and using scale-drawings. They also solve problems involving area and circumference of circles. Additionally, students examine cross-sections of three-dimensional figures. Their work with expressions and equations is applied to finding unknown angles and problems involving area, surface area, and volume.

**Required Assignment:**
**Describing and Defining Triangles**

http://map.mathshell.org/lessons.php?unit=7330&collection=8
This lesson assesses how well students are able to recall and apply triangle properties, sketch and construct triangles with given conditions, and determine whether a set of given conditions for the measures of angle and/or sides of a triangle describe a unique triangle, more than one possible triangle or do not describe a possible triangle. Before the lesson, students work individually on an assessment task designed to reveal their current understanding and ability to reason using geometrical properties. The teacher then reviews their responses and creates questions for students to consider when improving their work. After a whole-class introduction, students work in pairs or threes on a collaborative task, determining whether sets of conditions describe possible triangles (unique or otherwise) or whether it is impossible to draw a triangle with these conditions. Throughout their work, students justify and explain their thinking and reasoning. They then compare their categorizations with their peers before reviewing their work and what they have learned in a whole-class discussion. In a follow-up lesson, students review their initial work on the assessment task and work alone on a similar task to the introductory task.

**Suggested Activities:** See the Unit 5 Guide for Math 7.

**Materials:** Big Ideas MATH Course 2 text: Chapters 7, 8 and 9

**Standards Addressed:** CCSS-M Clusters 7.G.A, 7.G.B

**Unit 6**: Probability and Statistics

**Duration:** 26 days

**Description:**
In **Unit 6**, students learn to develop, use and evaluate probability models through the study of chance processes. Students continue the development of their understanding of statistical variability. Instead of looking at just one population, they are comparing the variability of two populations. They learn to draw inferences about populations based on random samples.

**Required Assignment:**
**Analyzing Games of Chance**
http://map.mathshell.org/lessons.php?unit=7420&collection=8
This lesson is designed to help students to confront and overcome common probability misconceptions, count equally likely outcomes using diagrams, discuss relationships between theoretical probabilities, observed outcomes, and sample sizes, and calculate probabilities of independent events. Before the lesson, students work individually on a task designed to reveal their current level of understanding. The teacher reviews their scripts and writes questions to help them to improve their work. In the lesson, students are asked to work collaboratively on some simple games. They make predictions of the outcomes and then conduct the experiments and gather data. In a follow-up lesson, students use their learning and your questions to review their initial answers and to complete a follow-up task.

**Suggested Activities:** See the Unit 6 Guide for Math 7.

**Materials:** Big Ideas MATH Course 2 text: Chapter 10

**Standards Addressed:** CCSS-M Clusters 7.SP.A, 7.SP.B, 7.SP.C

**INSTRUCTIONAL METHOD AND/OR STRATEGIES:**

A variety of instructional strategies will be utilized to accommodate all learning styles. See the "Using Formative Assessment to Address the Specific Learning Needs of Low Achieving Students, High Achieving Students, Students with Disabilities and English Language Learners in K-12 MATHEMATICS" document.

**COURSE MATERIALS:**

Core Text: Big Ideas MATH Course 2, Larson & Boswell, Big Ideas Learning, © 2015

Supplemental Materials: In addition to the basic text, a variety of instructional tools will be used to meet the needs of all students.

**RESOURCES:**

*Documents*

- LBUSD Scope and Sequence ..... LBUSD Mathematics Webpage
- LBUSD Unit Guides ..... LBUSD Mathematics Webpage
- LBUSD Instructional Tools ..... LBUSD Mathematics Curriculum Intranet
- Using Formative Assessment for Differentiation ..... LBUSD Math/ELA Curriculum Documents
- CTE Standards ..... http://www.cde.ca.gov/ci/ct/sf/ctemcstandards.asp
- Work-Based Learning Continuum ..... LBUSD Work-Based Learning Webpage
- ELD Standards ..... http://www.cde.ca.gov/sp/el/er/eldstandards.asp

*District Offices*

- Math Curriculum Office ..... (562) 997-8000, ext. 2962
- Research Office ..... (562) 997-8143

**PERFORMANCE CRITERIA:**

Defines how good is good enough on which measures to demonstrate achievement of content standards.

***Classroom Performance Standards***

The objective of instruction is to help all students achieve at or above the Proficient Level and receive a C or better in the course.

| | **F** | **D** | **C** | **B** | **A** |
|---|---|---|---|---|---|
| Assessments<br>Unit Tests<br>Chapter Tests<br>Quizzes | 0 – 59% | 60 – 69% | 70 – 79% | 80 – 89% | 90 – 100% |
| Classwork | 0 – 59% | 60 – 69% | 70 – 79% | 80 – 89% | 90 – 100% |
| Homework | 0 – 59% | 60 – 69% | 70 – 79% | 80 – 89% | 90 – 100% |

**Standard Grading Scale:**

| | |
|---|---|
| **A** | 90 – 100% |
| **B** | 80 – 89% |
| **C** | 70 – 79% |
| **D** | 60 – 69% |
| **F** | 0 – 59% |

**Suggested Grade Weighting:**

| | |
|---|---|
| 1. Assessment | 60 – 80% |

Graded work assessing a student's mastery of mathematics such as any of the following:
- o Tests (district exams and classroom tests)
- o Quizzes
- o Project work that assesses a student's understanding

| | |
|---|---|
| 2. Classwork/Activities | 10 – 25% |

Graded work completed in class such as any of the following:
- o In class assignments
- o Project work completed in class
- o Notes
- o Warm-ups
- o Graded participation

| | |
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| 3. Homework | 5 – 15% |

Graded work completed outside of class such as any of the following:
- o Assignments
- o Project work completed outside of class

Submitted by: Becky Afghani
Submission Date: August 24, 2015
School/Office: Math Curriculum Office

Original Board Approval Date: November 3, 2015
Revised Board Approval Date: