Subject Area: Mathematics

Grade Level: 5

CM24-25

Unit 1: Place Value

Student Paced Time Frame: 11 days to 15 days

Overview

In this unit, students will understand place value.

Unit Rationale:

Students need to learn the Base 10 number system to develop and extend their concept of whole numbers. This understanding will lead to expanded notation, written notation, and scientific notation. The application and use of the Base 10 number system will be applied to money concepts and the theric system.

The base ten numeration system is a scheme for recording numbers using digits 0-9, groups of ten and place value. Numbers can be used for different purposes, and numbers can be classified and represented in different ways. Numbers, expressions, measures, and objects can be compared and related to other numbers, expressions, measures and objects in different way.

Content:

- Students will learn to find the value of each digit in a number from the billions to the millions place.
- Students will learn to compare and orde, numbers from the billions to the millions place.
- Students will learn to read and write decimals in standard form, word form, and expanded form.

Enduring Understandings:

- Define the value of numers.
- Explain how to use symbols to compare two numbers.
- Compare the values of two identical digits in a number.
- Read and write nuti-digit numbers in multiple forms.

Skill and Knowledge Objectives

- Understand the relationship between place value positions.
- Write multi-digit numbers in different forms and compare the values of digits.
- Write numbers using exponents.
- Virile thousandths as fractions and decimals.
 - Write decimals in different forms and compare the values of digits.
- Compare decimals to the thousandths place.
- Use place value to round decimals.

Subject Area: Mathematics

Grade Level: 5

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New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Stills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students whenever they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have studies is discuss norms for mathematical collaboration. Have them answer questions about what they like to do and say while working in groups or how they think others can act to make the group work well.
- Encourage students to reflect on how they approached mathematics "to " including in journals or pair shares. Ask them to include how their choices could be repeated in successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem selutions, identifying feelings and thoughts of others who adopt these strategies
- Source: https://www.casel.org/wp-content/uploads/2013/03/SEL-in-Elementary-Math-8-20-17.pdf

Subject Area: Mathematics

Grade Level: 5

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New Jersey Student Learning Standards:

Number and Operations in Base Ten

A. Understand the place value system.

- 1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much at it epresents in the place to its right and 1/10 of what it represents in the place to its left.
- 2. Explain patterns in the number of zeros of the product when multiplying a number by rowers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
- 3. Read, write, and compare decimals to thousandths.
 - a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
 - b. Compare two decimals to thousandths based on meaning of the digits in each place, using >, =, and < symbols to record the results of comparisons.
- 4. Use place value understanding to round decimals to any olac-

B. Perform operations with multi-digit whole numbers and with decimals to hundredths.

- 5. With accuracy and efficiency, multiply multi-digit whose numbers using the standard algorithm.
- 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy of a written method and explain the reasoning used.

Subject Area: Mathematics

Grade Level: 5

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Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplified assessments, as needed.

Pre-Assessment:

• Preview Performance Task - Population Sizes of Different Sizes of Species

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Unit 1 Test
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on stu 4-ats needs and abilities)
- Web based (Big Ideas) lesson presentation followed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and homework problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete <u>Performance Task</u> after completing this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ide is Website) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

Grade Level: 5

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Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or up on submission
 - Randomize recalculates the ... lucs for each question so students are not given the same assessment
 - Scramble- rearranges questions so students are not given the same assessment
- Computer math games

MLL/ELL (ESL) Support 📞

- English language learners strategies infused in Big Ideas Teacher Edition
- Online- Big Ideas Multi-Language Glossary

Big Ideas Video Tutoria s

Virtual Manic Platives

Digital Txs mples

Skills Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or enrichment)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, schill-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an aud o recorder
- Use of calculator
- Use of a place value chart
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an essessment and/or assignment in small group setting

Timing Accon. modations

- Take more time to complete a task or an assessment
- I vave extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Schoduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations

- Mark texts with a highlighter
- Break down tasks into manageable units

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- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanted
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such as continuing to work on same concept with easier numbers or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, proficient and/or advanced) than the one for classmate

Differentiated Lesson(s) for this Unit - Place Value

Accommodations & Differentiate Instruction, depending on in vividual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality written material to supplement oral explanation, models, illustrations, assignments written on board.
- Directions repeated, clarified or rewerded
- Rephrase word problems
- Work with fewer items per page of line and/or materials in a larger print size
- Be given a written list of instructions
- Have another student share class notes with him
- Be given a study gui le to absist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use of calculaton
- Use of a man grid
- Use a were processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Lit where student learns best (for example, near the teacher & away from distractions)
 - Take an assessment and/or assignment in small group setting

Tining Accommodations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

Organization Skills Accommodations

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Subject Area: Mathematics

Grade Level: 5

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Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses

Lessons & Activities:

- SE/TE-A: 5-8, 9-10, 12-13, 16, 18, 20-21, 36, 38-39, 52-53, 57-58, 71-72, 75-76, 81 Workbook A: 15A, 15B, 19A, 24A
- SE/TE-B: 7-14, 16-17, 18-19, 20-22, 23, 27-29, 36-39, 42, 43-44, 46-47, 51, 53-58, 60-61, 63-64 Workbook B: 17A, 22A, 42A, 50A, 59A, 59B, 67A

Subject Area: Mathematics

Grade Level: 5

CM24-25

Unit 2: Numerical Expressions

Student Paced Time Frame: 8 days to 10 days

Overview

In this unit, students will understand numerical expressions.

Unit Rationale:

Students will need to make sense of problems and persevere in solving them. This will need to make sense of problems and persevere in solving them. This will need to use appropriate tools strategically.

Some mathematical phrases can be represented using a variable in an algebraic expression. The value of an algebraic expression can be found by replacing the variable (s) with a given number (s) and doing the calculation that results.

Numerical and algebraic expressions can involve more than one operation. The value of an algebraic expression can be found by replacing the variable(s) with a given number(s) and doing the calculation that results. Numerical and algebraic expressions can involve more than one operation.

To simplify a numerical expression, first compute within parentheses. Then do any multiplication and division calculations followed by any additionant! subtraction calculations.

Content:

- Students will use parentheses, buckets, or braces in numerical expressions, and evaluate expressions with these symbols.
- Students will use patterns o show relationships and evaluate algebraic expressions.
- Students will write and evaluate expressions involving multiplication, addition, and subtraction.
- Students will use given values for variables to evaluate numerical or algebraic expressions with three or more numbers and two or more operations.

Enduring Under standings:

- Identify number properties.
- Explan number properties to write equations.
- Interp. et an expression.
- Evaluate a numerical expression.

Skin and Knowledge Objectives

- Use number properties.
- Use order of operations to evaluate numerical expressions.
- Write numerical expressions.
- Use order of operations to evaluate expressions with grouping symbols such as parentheses and brackets.

Subject Area: Mathematics

Grade Level: 5

CM24-25

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students wherever they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have studied is discuss norms for mathematical collaboration. Have them answer questions about what they like to it and say while working in groups or how they think others can act to make the group work woll.
- Encourage students to reflect on how they approached mathematics "to 12," including in journals or pair shares. Ask them to include how their choices could be repeated in successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem selutions, identifying feelings and thoughts of others who adopt these strategies.

 Source:https://www.casel.org/wp-content/uploads/2017/08/SEL-in-Elementary-Math-8-20-17.pdf

New Jersey Student Learning Standards:

Operations and Algebraic Thinking

A. Write and interpret numerical expressions.

- 1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- 2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them For mample, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 2 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated rum or product.

B. Analyze patterns and relationships.

3. Generate two nun erical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplified assessments, as needed.

Pre-Assessment:

• Preview <u>Performance Task</u> - Writing and Simplifying Numerical Expressions Using the Number of Atoms in Molecules and Compounds.

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Unit 2 Assessment
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on crudents needs and abilities)
- Web based (Big Ideas) lesson presentation followed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and homework problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after on poleting this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ideas Website) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

Grade Level: 5

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Additional Resources:

Paper based and pdf worksheets Daily Skills Practice

- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or upon submission
 - Randomize recalculates the value for each question so students are not given the same assessment
 - Scramble- rearranges questions so students are not given the same assessment
- Computer math games

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- Online- Big Ideas Multi-Language Glossary

Big Ideas Video Tutorials

Virtual Manipulatives
Digital Examples

Skills Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or earthment)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-tield system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments

Response Accommodations

- Use sign language, a communication device. Draile, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use a word processor to type note: or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns beat (for example, near the teacher & away from distractions)
- Take an assessment and or assignment in small group setting
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations

- Take more three to complete a task or an assessment
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
 - Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations

- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

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Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such as continuing to work on same concept with easier numbers or moving ahead to an extension concept/skill, hile classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, proficient, and/cr advanced) than the one for classmate

Differentiated Lesson(s) for this Unit - Numerical Expressions

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Rephrase word problems
- Work with fewer items per page or line and/or materials in a larger print size
- Be given a written list of instructions
- Have another student share class 1.2 tes with him
- Be given a study guide to assis, in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodation

- Use of calculator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit v: student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Timing Accommodations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

Organization Skills Accommodations

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

• Provide larger white work space

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• Allow for oral rather than written responses

Lessons & Activities:

• SE/TE-A: 55, 60-63, 64-66, 68, 73-74, 77-80, 92-95, 109, 113, 216-217, 227-228, 230, 235, 237, 240, 242, 245

Property of Bedining termounts of Bedining termones Workbook A: 63A, 81A, 81B, 95B, 108A, 108B, 109A, 113D, 225A, 240A, 241A, 315B, 315C, 315F, 315H

Subject Area: Mathematics
Grade Level: 5

CM24-25

Unit 3: Addition and Subtraction of Decimals

Student Paced Time Frame: 12 days to 15 days

Overview

In this unit, students will understand adding and subtracting decimals.

Unit Rationale:

• Understand adding and subtracting decimals.

Content:

- Use rounding.
- Use place value to line up the numbers in a problem.
- Solve a problem using decimals.
- Estimate to check my answer.

Enduring Understandings:

- Use rounding.
- Use place value to line up the numbers in a pro'ten
- Solve a problem using decimals.
- Estimate to check my answer.

Skill and Knowledge Objectives:

- Use rounding or compatible numbers to estimate sums and differences of decimals.
- Use models to add or subtract decimals.
- Add decimals and check whether the sum is reasonable.
- Subtract decimals and check my answer.
- Use addition and sub-action to evaluate expressions involving decimals.
- Use mental math to a d or subtract decimals.
- Solve multi-ster: word problems involving money.

New Jersey Social and Emotional Learning Competencies:

Self-Awarene's, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Giv: students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students whenever they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have students discuss norms for mathematical collaboration. Have them answer questions about what they like to do and say while working in groups or how they think others can act to make the group work well.
- Encourage students to reflect on how they approached mathematics "today," including in journals or

Subject Area: Mathematics

Grade Level: 5

CM24-25

pair shares. Ask them to include how their choices could be repeated if successful or improved in order to be more successful.

- Lead a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
- Source:https://www.casel.org/wp-content/uploads/2017/08/SEL-in-Elementary-Math-8-20-17/08/SEL-in-Elementar

New Jersey Student Learning Standards:

Number and Operations in Base Ten

- B. Perform operations with multi-digit whole numbers and with decimals to auxidre ths.
 - 5. Fluently multiply multi-digit whole numbers using the standard algorithm
 - 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
 - 7. Add, subtract, multiply, and divide decimals to hundredths using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simpling assessments, as needed.

Pre-Assessment:

• Preview <u>Performance Task</u> - Writing and Simplifying Numerical Expressions Using the Number of Atoms in Molecules and Compounds.

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Unit 3 Assessment
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on atual ents needs and abilities)
- Web based (Big Ideas) lesson presentation followed by web hased Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and homewc:k problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after convoleting this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ideas Website) Teacher selected problems (based on students needs and abilities)

Additional Resources:

Paper based and odf worksheets Daily Skills Practice

- Vocabulary practice
- Preinguisite skills practice
- I'xti a practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time

Subject Area: Mathematics

Grade Level: 5

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- Calculator 4 function, scientific, or graphing
- Stepped out video examples
- Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or upon submission
 - Randomize recalculates the values for each question so students are not given the same assessment
 - Scramble- rearranges questions so students are not given the same assessment
- Computer math games

MLL / ELL Support

- English language learners strategies infused in Big Ideas Teache. Edition
- Online- Big Ideas Multi-Language Glossary

Big Ideas Video Tutorials

Virtual Manipulatives Digital Examples

Skills Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or enrichment)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, modals, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessmen's

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recordel
- Use of a math grid paper
- Use a word processor to type note: or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations

- Take more time to complete a task or an assessment
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations

- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides/grid paper

Assignment Modifications

Subject Area: Mathematics

Grade Level: 5

CM24-25

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such as continuing a work on same concept with easier numbers or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, proficient, and/or ad var ced) than the one for classmate

Differentiated Lesson(s) for this Unit - Addition & Subtraction of Decimal

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality(written reaterial to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Rephrase word problems
- Work with fewer items per page or line an. 1 o. materials in a larger print size
- Be given a written list of instructions
- Have another student share class rate, with him
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use of calculator
- Use of a math grid
- Use a word proces or to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Timing Accoramodations

• Take more time to complete a task or an assessment

Take frequent breaks, such as after completing a task

Organization Skills Accommodations

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses

Subject Area: Mathematics

Grade Level: 5 CM24-25

Unit 4: Multiplication of Whole Numbers

Student Paced Time Frame: 9 days to 12 days

Overview

In this unit, students will understand multiplying whole numbers.

Unit Rationale:

The properties of multiplication can be used to simplify computation and to verify nightal math and paper and pencil algorithms. Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways.

The standard multiplication algorithm is to be applied to number sentences and real-life multiplication problems.

Content:

- Students will identify and apply the Commutative, Associating, Identity, Distributive and Zero Properties of Multiplication.
- Students will use mental math skills to find esturated products.
- Students will apply multiplication skills to sc¹ real-life problems.

Enduring Understandings:

- Identify a pattern to find a product.
- Use rounding to estimate a product.
- Represent a product.
- Model different types of products with multiplication.

Skill and Knowledge Objectives

- Find products involving multiples of 10 and powers of 10.
- Use rounding and compatible numbers to estimate products.
- Multiply multi-digit numbers by one-digit numbers.
- Multiply "nulti digit numbers by two-digit numbers.
- Multip'y muiti-digit whole numbers.

Subject Area: Mathematics

Grade Level: 5

CM24-25

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship S'tills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students where er they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have students discuss norms for mathematical collaboration. Have them answer questions about what they like to jo and say while working in groups or how they think others can act to make the group work well.
- Encourage students to reflect on how they approached mathematics "to "a,;" including in journals or pair shares. Ask them to include how their choices could be repeated in successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
- Source: https://www.casel.org/wp-content/uploads/201i/02/SEL-in-Elementary-Math-8-20-17.pdf

Subject Area: Mathematics

Grade Level: 5

CM24-25

New Jersey Student Learning Standards:

Number and Operations in Base Ten

B. Perform operations with multi-digit whole numbers and with decimals to hundredths.

- 5. With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm.
- 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the praspning used.

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplify assessments, as needed.

Pre-Assessment:

• Preview Performance Task - Solving Froolers Related to the Grand Coulee Dam.

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Assessment Init 4
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ress Website)- Teacher selected (based on students needs and abilities)
- Web based (Pio Ideas) lesson presentation followed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Rig Ideas Website) classwork and homework problems providing automatic results on accuracy to students and teacher

Self-Re. lection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after completing this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ideas Website) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

Grade Level: 5

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Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or upon submission
 - Randomize recalculates the values for each question so students are not given the same assessment
 - Scramble- rearranges questions so students are not given the same assessment
- Computer math games

MLL/ELL Support

- English language learners strategies infused in Big Ideas Teacher Edition
- Online- Big Ideas Multi-Language Glossary

Big Ideas Video Tuterials

Virtual Manip: latives

Digital Fya. nules

Skin's Frainer/IXL - Online (interactive resource for skills practice - used for remediation and/or enrichment)

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

• Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)

Subject Area: Mathematics

Grade Level: 5

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- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use of a multiplication chart
- Use of a math grid paper
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (voi example, near the teacher & away from distractions)
- Take an assessment and or assignment in small group setting
- Use noise buffers such as neadphones, earphones, or earplugs

Timing Accommodations

- Take more time to complete a task or an assessment
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Ank a test at a specific time of day

Crainization Skills Accommodations

- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides/grid paper

Assignment Modifications

• Provide larger white work space

Subject Area: Mathematics

Grade Level: 5

<u>CM24-25</u>

- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such as continuing to vork on same concept with easier numbers or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, proficient, and/or advanced) than the one for classmate

Differentiated Lesson(s) for this Unit - Multiplication of Whole Numbers

Accommodations & Differentiate Instruction, depending on individual student st

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Rephrase word problems
- Work with fewer items per page or line and/or materials in a larger print size
- Be given a written list of instructions •
- Have another student share class notes with him
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or dononstrate concepts

Response Accommodations

- Use of calculator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Timing Accen. modations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

Organization Skills Accommodations

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses

Subject Area: Mathematics

Grade Level: 5

CM24-25

Unit 5: Multiplication of Decimals

Student Paced Time Frame: 14 days to 21 days

Overview

In this unit, students will understand multiplying decimals.

Unit Rationale:

Students will apply the previously learned place value skills to multiply decimal number. Students will determine if products are reasonable by finding estimated products.

Content:

- Students will multiply decimals by 10, 100 or 1,000.
- Students will estimate the product of a decimals and whole number.
- Students will multiply decimals using the traditional algorithm.

Enduring Understandings:

- Identify a pattern to determine the location of a decimal.
- Explain different ways to estimate a decimal.
- Solve a problem using decimals.
- Model different types of decimals.

Skill and Knowledge Objectives:

- Find products involving decimals and Jowers of 10.
- Use rounding and compatible numbers to estimate products of decimals and whole numbers.
- Use models to multiply decimals and whole numbers.
- Multiply decimals and whole numbers.
- Use models to multiply decimals.
- Use partial products in multiply decimals.
- Use estimation and properties to multiply decimals.
- Multiply decimers.
- Solve mul.i-s.²ρ word problems involving money.

Subject Area: Mathematics

Grade Level: 5

CM24-25

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills **Activities:**

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students whenever they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have students discuss norms for mathematical collaboration. Have them answer questions about what they like to o and say while working in groups or how they think others can act to make the group wo. well.
- Encourage students to reflect on how they approached mathematics "to 12," including in journals or pair shares. Ask them to include how their choices could be repeated in successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem solutions, identifying feelings and Property of Bedining thoughts of others who adopt these strategies
 - Source: https://www.casel.org/wp-content/uploads/2017/02/SEL-in-Elementary-Math-8-20-17.pdf

Subject Area: Mathematics

Grade Level: 5

CM24-25

New Jersey Student Learning Standards:

Number and Operations in Base Ten

A. Understand the place value system.

- 1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its less.
- 2. Explain patterns in the number of zeros of the product when multiplying a number by rowers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
- 3. Read, write, and compare decimals to thousandths.
 - a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 2 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
 - b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparison.
- 4. Use place value understanding to round decimals to any purce.

B. Perform operations with multi-digit whole number, and with decimals to hundredths.

- 5. With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm.
- 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two digit divisors, using strategies based on place value, if e properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplifications assessments, as needed.

Pre-Assessment:

• Preview Performance Task - Solving Problems Related to Microscopic Images of Corn Picut Cells

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Assessment Unit 5
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on students needs and abilities)
- Web based (Big Ideas) lesson presentation followed by web base! Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and homework problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after completing this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ide is Weighte) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or upon submission
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 - Scramble- rearranges questions so students are not given the same assessment
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- English language learners strategies infused in Big Ideas Teacher Edition
- Online Big Ideas Muni Language Glossary

Big Ideas Video Tuterials

Virtual Manipulatives

Digital Fyamples

Skin's Prainer/IXL - Online (interactive resource for skills practice - used for remediation and/or en chment)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessmen's
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use sign language, a communication device, Rraille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use of a multiplication chart
- Use of a math grid paper
- Use a word processor to type nows or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learn, best (for example, near the teacher & away from distractions)
- Take an assessmen. and/or assignment in small group setting

Timing Accommodations

- Take more three to complete a task or an assessment
- Have extra time to process oral information and directions
- Take freguent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project

 Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations

- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides/grid paper

Subject Area: Mathematics

Grade Level: 5

CM24-25

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such as continuing to work on same concept with easier numbers or moving ahead to an extension concept/skill v/hile classmates continue to work on a core skill)
- Assessed using a leveled standard/concept (emerging, proficient, advanced) than one for classmate Differentiated Lesson(s) for this Unit Multiplication of Decimals

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Rephrase word problems
- Work with fewer items per page or line an 4/o. materials in a larger print size
- Be given a written list of instructions
- Have another student share class rate, with him
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use of calculator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where silvdent learns best (for example, near the teacher & away from distractions)
- Take and assignment in small group setting

Timing Accoramodations

- Pake more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

Or anization Skills Accommodations

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses

Subject Area: Mathematics

Grade Level: 5

CM24-25

Unit 6 & Unit 7: Division of Whole Numbers and Decimals

Student Paced Time Frame: 14 days to 16 days for each unit

Overview

In this unit, students will understand dividing whole numbers and understand dividing decimals

Unit Rationale:

Students will apply the previously learned division skills to understand the division of whole numbers and decimals.

Content:

- Identify a whole number.
- Describe division patterns.
- Solve a problem using division.
- Model division of numbers.
- Identify a decimal.
- Write a decimal equation.
- Solve a problem using decimals.
- Model different types of decimals as equations.

Enduring Understandings:

- Use multiplication to divide
- Use place value and division fact: to find quotients.
- Use division facts and compatible numbers to estimate quotients.
- Divide multi-digit numbers by one-digit numbers.
- Use an area model and partial quotients to divide.
- Use partial quotients to divide with a remainder.
- Divide three-digit numbers by two-digit numbers.
- Divide four-digi numbers by two-digit numbers.
- Solve word, robiems involving division of whole numbers.
- Find quotents involving decimals and powers of 10.
- Use compatible numbers to estimate quotients involving decimals.
- Use models to divide decimals by whole numbers.
- Div'de decimals by one-digit whole numbers.
 - Divide decimals by two-digit whole numbers.
- Use models to divide decimals by decimals.
- Divide decimals by decimals
- Insert zeros in the dividend when dividing with decimals and whole numbers.
- Solve word problems involving decimals.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Skill and Knowledge Objectives:

- Explain how to use an area model to divide.
- Write a related multiplication equation for a division problem.
- Use multiplication to solve a division problem.
- Divide a multiple of ten, one hundred, or one thousand by a one-digit number.
- Divide a multiple of ten, one hundred, or one thousand by a multiple of ten.
- Explain how to use place value and division facts to divide tens, hundreds, or thousand
- Use division facts and compatible numbers to estimate a quotient.
- Find two estimates that a quotient is between.
- Use place value to divide.
- Show how to regroup when necessary.
- Find a quotient and a remainder.
- Explain how to use an area model to divide.
- Write partial quotients for a division problem.
- Add the partial quotients to find a quotient.
- Use partial quotients to divide.
- Find a remainder.
- Use estimation to place the first digit in a quotient.
- Use place value to divide.
- Use estimation or multiplication to check my answer.
- Use estimation to place the first digit in a ononent.
- Use place value to divide.
- Use estimation or multiplication to chark my answer.
- Explain how to divide a number by a power of 10.
- Explain patterns in the placement of the decimal point when dividing a decimal by a power of 10.
- Rename a dividend to estimate a quotient.
- Use compatible number, to saimate a quotient.
- Explain different ways to eximate a quotient.
- Use division facts and compatible numbers to estimate a quotient.
- Find two estimates that a quotient is between.
- Use a model to represent a decimal.
- Divide a model to show equal groups.
- Use a model to divide a decimal by a whole number.
- Use place value to divide.
- Place the decimal point in the quotient. Regroup when necessary. Use estimation to check my answer.
- Multiply a divisor and a dividend by a power of 10 to make the divisor a whole number.
- Place the decimal point in a quotient.
- Divide a decimal by a decimal.
- Explain when to insert one or more zeros in the dividend to find a quotient.
- Insert one or more zeros in a dividend to find a quotient.
- Recognize when a division problem is complete.

Subject Area: Mathematics

Grade Level: 5

CM24-25

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students where er they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have studients discuss norms for mathematical collaboration. Have them answer questions about what they like to it and say while working in groups or how they think others can act to make the group work well.
- Encourage students to reflect on how they approached mathematics "to ", " including in journals or pair shares. Ask them to include how their choices could be repeated in successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
- Source: https://www.casel.org/wp-content/uploads/2017/02/SEL-in-Elementary-Math-8-20-17.pdf

New Jersey Student Learning Standards: 5.NBT.A, 5.NDT &

5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

5.NF.B.3 Interpret a fraction as division of the numerator by the denominator (i.e., $\frac{a}{b} = a \div b$). Solve word problems involving division of who'e numbers leading to answers in the form of fractions or mixed numbers,

e.g., by using visual fraction node or equations to represent the problem. For example, interpret $\frac{1}{4}$ as the

result of dividing 3 by 4 noting that 4 multiplied by 4 equals 3, and that when 3 wholes are shared equally

among 4 people each person has a share of size $\frac{4}{4}$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?

- 5.001.4.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole number exponents to denote powers of 10.
- 5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
- 5.NBT.A.4 Use place value understanding to round decimals to any place.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplity; assessments, as needed.

Pre-Assessment:

• Preview Performance Task - Solving Problems Related to <u>Driving Cars</u> and <u>Cleaning Highways</u>

Formative Assessment:

- Mid-Unit Assessments
- Chapter 6 Tests A and B
- Chapter 7 Tests A and B
- Modified Unit 6 & 7 Assessment
- Modified Unit 7 Assessment
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on students needs and abilities)
- Web based (Big Ideas) lesson presentation followed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and hour work problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after completing this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Versica A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Rig Ideas Website) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or upon submission
 - Randomize recalculates the values for each question so students are not given the same assessment
 - Scramble- rearranges questions so students are not given the same assessment
- Computer math games

MLL/ELL Support

- English language learners strategies infused in Big Ideas Teacher Edition
- Online Big Ideas Multi-Language Glossary

Big Ideas Video Tutoria's

Virtual Manie Latives

Digital Fxamples

Skills Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or enrichment)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, modals, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, soun 1-tield system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concents

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use of a multiplication chart
- Use of a math grid pape:
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an asce sment and/or assignment in small group setting
- Use noise duffers such as headphones, earphones, or earplugs

Timing Accon.modations

- Take more time to complete a task or an assessment
- 1 ave extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

- Use an alarm to help with time management
- Mark texts with a highlighter

Subject Area: Mathematics

Grade Level: 5 CM24-25

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides/grid paper

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such a. continuing to work on same concept with easier numbers or moving ahead to an extension continuity) skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, proficient, and/or advanced) than the one for classmate

<u>Differentiated Lesson(s)for this Unit - Division of Whole Numers</u> <u>Differentiated Lesson(s)for this Unit - Division of Decimals</u>

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality (written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Rephrase word problem.
- Work with fewer items per page or line and/or materials in a larger print size
- Be given a written list of instructions
- Have another student share class notes with him
- Be given a study guide to assist in preparing for assessments
- Use manipulative to teach or demonstrate concepts

Response Accoming actions

- Use of calculator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Timing Accommodations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

Subject Area: Mathematics

Grade Level: 5

- <u>CM24-25</u>
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses

Unit 8, Unit 9 & Unit 10: Adding, Subtracting, Multiplying & Dividing Fractions

Student Paced Time Frame: 14 days to 16 days for each unit

Overview

In this unit, students will understand adding, subtracting, mult.pi, ing, and dividing fractions and mixed numbers.

Unit Rationale:

- Students will use equivalent fractions as a strategy to add and subtract fractions and mixed numbers...
- Students will apply and extend previous processandings of multiplication and division to multiply and divide fractions.

Content:

- Add and subtract fractions and mixed numbers with like and unlike denominators.
- Solve word problems involving addition and subtraction of fractions
- Solve word problems invaiving division of whole numbers leading to answers in the form of fractions or mixed numbers
- Apply and extend one vious understandings of multiplication to multiply a fraction or whole number by a fraction.
- Interpret multiplication as scaling
- Solve real would problems involving multiplication of fractions and mixed numbers
- Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions

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Enduring Understandings:

- Find the factors of a number.
- Write equivalent fractions.
- Add and subtract fractions.
- Solve a problem using fractions.
- Students will apply the standard addition and subtraction algorithms to solve addition and subtraction of fractions problems.
- Students will apply the standard multiplication and division algorithms to solve multiplication and division of fractions problems
- Students will change mixed numbers to improper fractions and apply multiplications and division of fractions skills to solve problems with mixed numbers

Skill and Knowledge Objectives:

- Write fractions in simplest form.
- Estimate sums and differences of fractions.
- Write fractions using common denominators.
- Add and subtract fractions with unlike denominators.
- Add and subtract mixed numbers with unlike denominators.
- Solve multi-step word problems involving fractions and mixed numbers.
- Multiply whole numbers by fractions and fractions by whole numbers.
- Find areas of rectangles using fractions.
- Multiply mixed numbers by mixed numbers.
- Compare a product to each of its factors.
- Understand how fractions and mixed numbers relate to division.
- Divide whole numbers by unit fractions and unit fractions by whole numbers.
- Solve multi-step word problems involving division with fractions.

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Managoment, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Give students of portunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students whenever they listen viril and tell them specifically what they did well. Give students authentic feedback for resulving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have students discuss norms for mathematical collaboration. Have them answer questions about what they like to do and say while working in groups or how they think others can act to make the group work well.
- Encourage students to reflect on how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
- Source: https://www.casel.org/wp-content/uploads/2017/08/SEL-in-Elementary-Math-8-20-17.pdf

Subject Area: Mathematics

Grade Level: 5

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New Jersey Student Learning Standards:

Number and Operations—Fractions 5.NF.A, 5.NF.B

A. Use equivalent fractions as a strategy to add and subtract fractions.

- 1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)
- 2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to as innate mentally and assess the reasonableness of answers. For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.

B. Apply and extend previous understandings of multiplication. no division to multiply and divide fractions.

- 3. Interpret a fraction as division of the numerator by the denominator (i.e., $\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example,
 - interpret $\frac{3}{4}$ as the result of dividing 3 b, 4, noting that $\frac{3}{4}$ multiplied by 4 equals 3, and that when 3
 - wholes are shared equally among + people each person has a share of size 4. If 9 people want to share a 50-pound sack of recognitive equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?
- 4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
 - a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. For example, use a visual fraction model to $cbo v(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)
 - Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
- 5. Interpret multiplication as scaling (resizing), by:
 - a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.

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- b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than ' as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $\frac{1}{2}b = \frac{(n \times a)}{(n \times b)}$ to the effect of multiplying a/b by 1.
- 6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
- 7. Apply and extend previous understandings of division to divide unit fractions by wnole numbers and whole numbers by unit fractions.1
 - a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$, and use a visual Γ action model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.
 - b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.
 - c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equality? How many 1/3-cup servings are in 2 cups of raisins?

Subject Area: Mathematics

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Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplity assessments, as needed.

Pre-Assessment:

Preview Performance Task - Solving Problems Related to <u>Distance & Historic Landing Res</u>, <u>Rock</u>
 Formation & National Parks, & Robotics Competition

Formative Assessment:

- Mid-Unit 8 Assessments
- Chapter 8 Tests A and B
- Chapter 9 Tests A and B
- Chapter 10 Tests A and B
- Unit 8 Modified Assessment
- Unit 9 Modified Assessment
- Unit 10 Modified Assessment
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on students needs and abilities)
- Web based (Big Ideas) lesson presentation foliowed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwo: and homework problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after completing this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ideas Website) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

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Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or up on submission
 - Randomize recalculates the values for each question so students are not given the same assessment
 - Scramble- rearranges questions so students are not given the same assessment
- Computer math games

MLL/ELL Support

- English language learners strategies infused in Big Ideas Teacher Edition
- Online Big Ideas Multi-Language Glossary

Big Ideas Video Tutoria's

Virtual Maniquiatives

Digital Txs males

Skills Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or enrichment)

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Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use sign language, a communication device. Dreille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use of multiplication chart
- Use a word processor to type rones or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessmen, and/or assignment in small group setting

Timing Accommodations

- Take more nine to complete a task or an assessment
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Subject Area: Mathematics

Grade Level: 5 CM24-25

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such as continuing to work on same concept with easier numbers or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, proficient, and/cr advanced) than the one for classmate

Differentiated Lesson(s)for this Unit - Addition & Subtraction of Fraction & Mixed Numbers

Differentiated Lesson(s) for this Unit - Multiplication Fractions

Differentiated Lesson(s) for this Unit - Division of Fractions

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's <u>504 Plan</u>) by:

Presentation Accommodations

- Present information via the visual modality written material to supplement oral explanation, models, illustrations, assignments written on beauty
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- Be given a written list of instructions
- Have another student share class notes with him
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use of calculator
- Use of a man grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Lit where student learns best (for example, near the teacher & away from distractions)
 - Take an assessment and/or assignment in small group setting

Tining Accommodations

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- Take frequent breaks, such as after completing a task

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Subject Area: Mathematics

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CM24-25

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses

Unit: Climate Change

Student Paced Time Frame: 7 days to 10 days

Overview

In this unit, students will understand the impact of CO2 and global warming.

Unit Rationale:

Students learn that CO2 is emitted when gasoline is burned, that too much CO2 is causing global warming, and that trees absorb CO2 and produce oxygen. Using simple arithmetic to figure the amount of CO2 emissions produced by their own travel, students discover why fuel off cient cars are more environmentally friendly and consider alternative transportation. As a wrap-up activity, students design bumper stickers that express the information they have learned.

Content:

- Describe the impact of cars on air quality.
- Understand the importance of trees to air quality.
- Practice basic computation skills.
- Apply math skills to understand rea! life issues and problems.
- Create a slogan that expresses the relationship between cars and air quality.

Project Link:

• Gr 5 Climate Change

Skill and Knowledge Objectives:

- Students will illustrate correct alignment of digits when multiplying decimal numbers.
- Students will recall multiplication facts.
- Students will scall and demonstrate the steps of the standard multiplication algorithm.
- Studen's will reason abstractly and quantitatively.
- Studen's will attend to precision.

Subject Area: Mathematics

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NJSLS

- 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).
- 9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, computity agencies, governmental, online) that can aid in solving the problem (e.g., 2.1.5.CHSS.1 4-ESS3-1)
- 9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about cossible solutions (e.g., W.4.6, 3.MD.B.3,7.1.NM.IPERS.6).
- 9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue (e.g., 6.3.5.CivicsPD.3, W.5.7).

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work vell with others. Thank students whenever they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group enort. Before proceeding, have students discuss norms for mathematical collaboration. Have then, an wer questions about what they like to do and say while working in groups or how they think others can act to make the group work well.
- Encourage students to reflect or how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
- Source: https://www.casel.org/wp-content/uploads/2017/08/SEL-in-Elementary-Math-8-20-17.pdf

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New Jersey Student Learning Standards:

Number and Operations in Base Ten

A. Understand the place value system.

- 1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much at it represents in the place to its right and 1/10 of what it represents in the place to its left.
- 2. Explain patterns in the number of zeros of the product when multiplying a number by rowers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
- 3. Read, write, and compare decimals to thousandths.
 - a. Read and write decimals to thousandths using base-ten numeral?, Lumber names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 2 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
 - b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparison.
- 4. Use place value understanding to round decimals to any pure.

B. Perform operations with multi-digit whole number; and with decimals to hundredths.

- 5. With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm.
- 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
- 3-5-ETS1: Engineering Design ETS1.B: Developing Possible Solutions MS-ESS3-5

Assessment:

Successful completion of the math problems (this would assess skills gained prior to the session) and application of them to the problem of global warming

Subject Area: Mathematics

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Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer so ind-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an and o recorder
- Use of calculator
- Use of a math grid paper
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where wident learns best (for example, near the teacher & away from distractions)
- Take on assessment and/or assignment in small group setting
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations

- Take more time to complete a task or an assessment
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

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- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and or a tvanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (cuc), as continuing to work on same concept with easier numbers or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging preficient, and/or advanced) than the one for classmate

Differentiated Lesson(s) for this Unit

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Rephrase word problem.
- Work with fewer items per page or line and/or materials in a larger print size
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- Take frequent breaks, such as after completing a task

Subject Area: Mathematics

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- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Property of Bedininster Rownship Allow for oral rather than written responses

Subject Area: Mathematics

Grade Level: 5

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Unit 11: Convert & Display Units of Measurement

Student Paced Time Frame: 12 days to 16 days

Overview

In this unit, students will understand measurements.

Unit Rationale:

Students will understand measurements.

Content:

- Identify length in metric units.
- Describe mass and capacity in metric units.
- Solve a problem using different ways to measure items.
- Compare the values of two different forms of measurement.

Enduring Understandings:

- Identify and describe length, mass, and capacity in metric units.
- Compare the values of two different forms of measuremen.
- Write lengths by converting to equivalent metric measures.
- Write masses and capacities by converting equivalent metric measures.
- Write lengths by converting to equivalent customary measures.
- Write weights using equivalent customary measures.
- Write capacities using equivalent customa.v measures.
- Make line plots and use them to solve problems.
- Solve multi-step word problema in volving units of measure.

Skill and Knowledge Objectives:

- Compare the sizes of two metric units of length.
- Write a metric length using, smaller metric unit.
- Write a metric length using a larger metric unit.
- Compare the sizes of two metric units of mass and capacity.
- Write metric masser and capacities using smaller metric units.
- Write metric marses and capacities using larger metric units.
- Compare the size, of two customary units of length.
- Write a customary length using a smaller customary unit.
- Write a customary length using a larger customary unit.
- Connaire the sizes of two customary units of weight.
- Vrite a customary weight using a smaller customary unit.
- Write a customary weight using a larger customary unit.
- Compare the sizes of two customary units of capacity.
- Write a customary capacity using a smaller customary unit.
- Write a customary capacity using a larger customary unit.
- Make a line plot.
- Interpret a line plot.
- Use a line plot to solve a real-life problem

Subject Area: Mathematics

Grade Level: 5 CM24-25

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students whene er they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have studients discuss norms for mathematical collaboration. Have them answer questions about what they like to do and say while working in groups or how they think others can act to make the group wo. Well.
- Encourage students to reflect on how they approached mathematics "to "a," including in journals or pair shares. Ask them to include how their choices could be repeated in successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
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New Jersey Student Learning Standards: 5.DL.A, 5.DL.B, and 5.M.A

5.M.A.1

Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

5.DL.A.1 Understand how different visualizations can highlight different aspects of data. Ask questions and interpret data visualizations to describe and analyze patterns.

5.DL.A.2 Develop strategies to collect, organize and represent data of various types and from various sources. Communicate results digitally through a data visual (e.g. chart, storyboard, video presentation).

5.DL.A.3 Collect and clean data to be analyzable (e.g., make sure each entry is formatted correctly, deal with missing or incomplete data).

5.DL.A.4 Using appropriate visualizations (i.e. double line plot, double bar graph), analyze data across samples.

5.DL.B.5 Make a line plot to display a data set of measurements in fractions of a unit (½, ¼, ⅓). Use operations on ractions for this grade to solve problems involving information presented in line plots. For example, give, different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

Subject Area: Mathematics

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CM24-25

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simpling assessments, as needed.

Pre-Assessment:

• Preview Performance Task - Solving Problems Related to Airplanes and Measurement

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Assessment
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on students needs and abilities)
- Web based (Big Ideas) lesson presentation followed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and homework problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after completing this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ideas Website) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or up on submission
 - Randomize recalculates the values for each question so students are not given the same assessment
 - Scramble- rearranges questions so students are not given the same assessment
- Computer math games

MLL/ELL Support

- English language learners strategies infused in Big Ideas Teacher Edition
- Online Big Ideas Muri Language Glossary

Big Ideas Video Tutorials

Virtual Manipulatives

Digital Fya. myles

Skin's Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or ent/chment)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, ELL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate confeepts

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an and o recorder
- Use of calculator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where still dent learns best (for example, near the teacher & away from distractions)
- Take on assessment and/or assignment in small group setting
- Use rolse buffers such as headphones, earphones, or earplugs

Timing Accommodations

- Take more time to complete a task or an assessment
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

Subject Area: Mathematics

Grade Level: 5

CM24-25

- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or a tvanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (cuci, as continuing to work on same concept with easier numbers or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging preficient, and/or advanced) than the one for classmate

Differentiated Lesson(s) for this Unit - Convert & Display Units of Measure

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual models, illustrations, assignments written on soard)
- Directions repeated, clarified or reworded
- Rephrase word problem.
- Work with fewer items per page or line and/or materials in a larger print size
- Be given a written list of instructions
- Have another student share class notes with him
- Be given a study guide to assist in preparing for assessments
- Use manipulative to teach or demonstrate concepts

Response Accominadations

- Use of calculator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setung Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Timing Accommodations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

Subject Area: Mathematics

Grade Level: 5

- **CM24-25**
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Property of Bedringster Township

Subject Area: Mathematics

Grade Level: 5

CM24-25

Unit 12: Patterns in the Coordinate Plane

Student Paced Time Frame: 11 days to 14 days

Overview

In this unit, students will understand

Unit Rationale:

Students will understand patterns and the coordinate plane.

Content:

- Identify patterns.
- Plot points on a coordinate plane.
- Analyze line graphs.
- Interpret relationships.

Enduring Understandings:

- Identify and plot points in a coordinate plane.
- Relate points and find distances in a coordinate plans.
- Draw and identify polygons in a coordinate plane
- Graph and interpret data in a coordinate plane.
- Make and interpret line graphs
- Create and describe numerical patterns.
- Use a graph to describe the relation, hip between two numerical patterns.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Skill and Knowledge Objectives:

- Use an ordered pair to identify the location of a point in a coordinate plane.
- Plot and label a point in a coordinate plane.
- Explain the relationship between two points that have the same x-coordinates or y-coordinates.
- Count grid lines to find the distance between two points.
- Use subtraction to find the distance between two points.
- Draw polygons in a coordinate plane.
- Identify polygons in a coordinate plane.
- Draw a symmetric shape in a coordinate plane given one half of the shape and a fine of symmetry.
- Use ordered pairs to represent data.
- Graph data in a coordinate plane.
- Interpret data shown in a coordinate plane.
- Make a line graph.
- Interpret a line graph.
- Create a numerical pattern.
- Describe features of a numerical pattern.
- Describe the relationship between two numerical patterns
- Generate two numerical patterns.
- Use two numerical patterns to write and plot ordered pairs in a coordinate plane.
- Use a graph to describe the relationship between two numerical patterns

New Jersey Social and Emotional Learning Compotencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students whenever they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math prollers that demand group effort. Before proceeding, have students discuss norms for mathematical collaboration. Have them answer questions about what they like to do and say while working in groups or how they think others can act to make the group work well.
- Encourage students to reflect on how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved in order to be more successful.
- 1 ea 1 a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
- Source: https://www.casel.org/wp-content/uploads/2017/08/SEL-in-Elementary-Math-8-20-17.pdf

Subject Area: Mathematics

Grade Level: 5 CM24-25

New Jersey Student Learning Standards: 5.G.A and 5.OA.B

5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond. (e.g., x-axis and x-coordinate, y-axis and y-coordinate).

5.G.A.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

5.OA.B.3 Generate two numerical patterns using two given rules. Identify apparent polationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add, 2" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the exalting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other requence. Explain informally why Property of Bedining Lei this is so.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplifications assessments, as needed.

Pre-Assessment:

• Preview Performance Task - Solving Problems Related to Computer Animation

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Assessment
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on students leads and abilities)
- Web based (Big Ideas) lesson presentation followed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and homework problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after completing this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version 2, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ideas Weight) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
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MLL/ELL Support

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- Online Big Ideas Multi-Language Glossary

Big Ideas Video Tutoria s

Virtual Maniquiatives

Digital Txamples

Skills Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or enrichment)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation rodels, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use of calculator
- Use of a coordinate plane

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where studen' learns best (for example, near the teacher & away from distractions)
- Take an asce sment and/or assignment in small group setting
- Use noise cuffers such as headphones, earphones, or earplugs

Timing Accan.modations

- Take more time to complete a task or an assessment
- 1 ave extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Schoduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

- Use an alarm to help with time management
- Mark texts with a highlighter

Subject Area: Mathematics

Grade Level: 5

CM24-25

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such a. continuing to work on same concept within one quadrant or moving ahead to an extension conformation while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, proficient, and/or advanced) than the one for classmate

Differentiated Lesson(s) for this Unit - Patterns in the Coordinat Plane

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality (written material to supplement oral explanation, models, illustrations, assignments written on beard)
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- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accomme lations

- Use of calculator
- Use of a muth grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Timing Accommodations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

- Break down tasks into manageable units
- Use of checklists

Subject Area: Mathematics

Grade Level: 5 CM24-25

• Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses

Unit 13: Volume

Student Paced Time Frame: 9 days to 12 days

Overview

In this unit, students will understand volume with geometric composite figures

Unit Rationale:

Students will understand volume with geometric composite figures.

Content:

- Define volume.
- Describe volume.
- Compare volumes.
- Apply the volume formula.

Enduring Understandings:

- Count to find volumes of solid figures.
- Find volumes of right rectangular prisms.
- Use a formula to find volumes of rectangular prisms.
- Find unknown dimensions of rectangular prisms.
- Find volumes of geometric composite figures.

Skill and Knowledge Objectives:

- Count the number of unit cubes in a solid figure.
- Tell the volume of a solid figure in cubic units.
- Identify units 33 cubic inches, cubic feet, or cubic centimeters.
- Find the 10, ber of unit cubes in each layer of a rectangular prism.
- Use it. number of unit cubes in each layer to find the volume of a rectangular prism.
- Write a formula for the volume of a rectangular prism.
- Prilain how to use the area of the base to find the volume of a rectangular prism.
- Use a formula to find the volume of a rectangular prism.
- Find the height of a rectangular prism given the volume of the prism and the area of the base.
- Find an unknown dimension of a rectangular prism given the volume of the prism and the other two dimensions.
- Break apart a composite figure into rectangular prisms.
- Find an unknown dimension of a composite figure.
- Add the volumes of rectangular prisms to find the volume of a composite figure.

Subject Area: Mathematics

Grade Level: 5

CM24-25

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students wherever they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have students discuss norms for mathematical collaboration. Have them answer questions about what they like to it and say while working in groups or how they think others can act to make the group wo. Well.
- Encourage students to reflect on how they approached mathematics "to "to," including in journals or pair shares. Ask them to include how their choices could be repeated in successful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
- Source: https://www.casel.org/wp-content/uploads/2017/02/SEL-in-Elementary-Math-8-20-17.pdf

New Jersey Student Learning Standards: 5.M.A, 5.M.&

5.M.B.2 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.

- a. A cube with side length 1 unit, called a unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
- b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
- 5.M.B.3 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units.
- **5.M.B.4** Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
 - a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.
 - b. Applie the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right accompliant prisms with whole number edge lengths in the context of solving real world and na.hematical problems.
 - c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplify assessments, as needed.

Pre-Assessment:

• Preview Performance Task - Solving Problems Related to Elevators

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Assessment
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on students needs and abilities)
- Web based (Big Ideas) lesson presentation followed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and homework problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after completing this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ideas Website) Teacher selected problems (based on students needs and abilities)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
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 - Release for review by teacher or upon submission
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 - Scramble- rearranges questions so students are not given the same assessment
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- English language learners strategies infused in Big Ideas Teacher Edition
- Online Big Ideas Multi-Language Glossary

Big Ideas Video Tutoria's

Virtual Manie Watives

Digital Examples

Skills Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or enrichment)

Subject Area: Mathematics

Grade Level: 5

CM24-25

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation codels, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparting for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses of an audio recorder
- Use of calculator
- Be given a formula sheet with visuals for each formula

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take 31, 25sessment and/or assignment in small group setting

Timing Accoramodations

- Take more time to complete a task or an assessment
- Wave extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations

• Use an alarm to help with time management

Subject Area: Mathematics

Grade Level: 5

CM24-25

- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides/formula sheet

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such an continuing to work on same concept with easier numbers or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, projected, and/or advanced) than the one for classmate

Differentiated Lesson(s) for this Unit - Understanding Volume

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality (written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or re vorded
- Rephrase word problems
- Work with fewer items per page or line and/or materials in a larger print size
- Be given a written list of instructions
- Have another student sagre class notes with him
- Be given a study golde to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommedations

- Use of sale lator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Timing Accommodations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

Organization Skills Accommodations

• Break down tasks into manageable units

Subject Area: Mathematics

Grade Level: 5

CM24-25

- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Property of Bedining territoring in the Property of Bedining territoring the property of the P Allow for oral rather than written responses

Subject Area: Mathematics

Grade Level: 5
CM24-25

Unit 14: Classifying Two Dimensional Geometric Shapes

Student Paced Time Frame: 8 days to 10 days

Overview

In this unit, students will understand two-dimensional geometric shapes.

Unit Rationale:

Students will understand two-dimensional geometric shapes

Content:

- Define two-dimensional geometric shapes.
- Explain different geometric shapes and their features.
- Compare shapes.
- Draw shapes.

Enduring Understandings:

- Classify triangles by their angles and their sides.
- Classify quadrilaterals by their angles and their since.
- Understand the hierarchy of quadrilaterals.

Skill and Knowledge Objectives:

- Identify an angle of a triangle as righ, acute, or obtuse.
- Determine whether sides of a triving le have the same length.
- Use angles and sides to classify a triangle.
- Identify parallel sides and sides with the same length in a quadrilateral.
- Identify right angles in a rua irilateral.
- Use angles and sides to classify a quadrilateral.
- Arrange quadrilaterais in a Venn diagram based on their properties.
- Use a Venn diagram to make statements about the relationships among quadrilaterals.

Subject Area: Mathematics

Grade Level: 5

CM24-25

New Jersey Social and Emotional Learning Competencies:

Self-Awareness, Self-Management, Social Awareness, Responsible Decision-Making, Relationship Skills Activities:

- Give students opportunities to practice social skills in small groups and project-based learning activities.
- Give students authentic feedback anytime they work well with others. Thank students wherever they listen well and tell them specifically what they did well. Give students authentic feedback for resolving conflicts peacefully
- Use rich math problems that demand group effort. Before proceeding, have students discuss norms for mathematical collaboration. Have them answer questions about what they like to it and say while working in groups or how they think others can act to make the group work will.
- Encourage students to reflect on how they approached mathematics "to "a," including in journals or pair shares. Ask them to include how their choices could be repeated in accessful or improved in order to be more successful.
- Lead a discussion about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies
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New Jersey Student Learning Standards: 5.G.B

5.G.B.3 Understand that attributes belonging to a category of two dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.

5.G.B.4 Classify two-dimensional figures in a higrarchy based on properties.

Subject Area: Mathematics

Grade Level: 5

CM24-25

Assessments*

Note: Questions may be revised, modified, and/or simplified based on students' needs. Special Education teachers, and English as Second Language teachers will be notified for suggestions to modify/revise/simplified assessments, as needed.

Pre-Assessment:

• Preview Performance Task - Solving Problems Related to Solar Panels

Formative Assessment:

- Mid-Unit Assessments
- Chapter Tests A and B
- Modified Assessment
- Alternative Assessment
- STEAM Performance Task
- Online Quiz (Big Ideas Website)- Teacher selected (based on crudents needs and abilities)
- Web based (Big Ideas) lesson presentation followed by web based Self Assessment Concepts and Skills and Self Assessment for Problems Solving
- Online (Big Ideas Website) classwork and homework problems providing automatic results on accuracy to students and teacher

Self-Reflection/Self-Assessment:

- Student Journal Responses
- Mini-Assessments
- Complete Performance Task after con pleting this unit of instruction.

Summative Assessment:

- Unit Assessment
- Paper tests Version A, Version B, or Alternative Assessment (based on students needs and abilities)
- Online Test (Big Ideas Website) Teacher selected problems (based on students needs and abilities)

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Additional Resources:

Paper based and pdf worksheets

- Daily Skills Practice
- Vocabulary practice
- Prerequisite skills practice
- Extra practice
- Reteach
- Enrichment and Extension
- Vocabulary cards
- Differentiating a lesson worksheets

Web based practice and assessments

- Practice problems
 - Adjustable time
 - Calculator 4 function, scientific, or graphing
 - Stepped out video examples
 - Answer check 0,1,2,3,4,5, or Unlimited
- Tests and quizzes
 - Adjustable time
 - Prevent or Allow late submission
 - Release for review by teacher or upon submission
 - Randomize recalculates the values for each question so students are not given the same assessment
 - Scramble- rearranges questions so students are not given the same assessment
- Computer math games

MLL/ELL Support

- English language learners strategies infused in Big Ideas Teacher Edition
- Online Big Ideas Multi-Language Glossary

Big Ideas Video Tutoria s

Virtual Maniculatives

Digital Fxamples

Skills Trainer/IXL - Online (interactive resource for skills practice - used for remediation and/or enrichment)

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Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
- Use alternate texts at lower readability level
- Rephrase word problems
- Reduce readability level of materials
- Work with fewer items per page or line and/or materials in a larger print size
- Provide multi-sensory presentation of data
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an and o recorder
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an ascessment and/or assignment in small group setting

Timing Accommedations

- Take more time to complete a task or an assessment
- H ve extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Schoduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations

- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units

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- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such as continuing to work on same concept at a lower curriculum level or moving ahead to an extension concept/skill while classmates continue to work on a core skill
- Get assessed using a leveled standard/concept (emerging, proficient an 4/or advanced) than the one for classmate

Differentiated Lesson(s) for this Unit - Classify Two-Dimensional Spaces

Accommodations & Differentiate Instruction, depending on in Vividual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality/watten material to supplement oral explanation, models, illustrations, assignments written on boatch
- Directions repeated, clarified or reworded
- Rephrase word problems
- Work with fewer items per page or line and/or materials in a larger print size
- Be given a written list of instructions
- Have another student share class notes with him
- Be given a study gui le to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use of calculaton
- Use of a man grid.
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Lit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Tilling Accommodations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

Organization Skills Accommodations

- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

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Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses

FOR ALL UNITS

Standard 8.1 Computer Science & Design Thinking Technology

- 8.1.5.NI.1: Develop models that successfully transmit and receive information using both wire and wireless methods.
- 8.1.5.NI.2: Describe physical and digital security measures for protecting sensitive personal information.
- 8.1.8.CS.1: Recommend improvements to computing devices in order to improve the ways users interact with the devices
- 8.1.8.CS.4: Systematically apply troubleshooting strategies to identify and resc¹: a hardware and software problems in computing systems.
- 8.1.8.DA.4: Transform data to remove errors and improve the accuracy of hodata for analysis.
- 8.1.8.DA.1: Organize and transform data collected using computational wols to make it usable for a specific purpose. https://www.state.nj.us/education/aps/cccs/career/

Standard 9: 21st-Century Financial, Career, Life Literacies & Key Skills:

All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.

A. Critical Thinking and Problem Solving

- 9.1.8.A.1 Develop strategies to reinforce positive attitudes and productive behaviors that impact critical thinking and problem-solving skills.
- 9.1.8.A.2 Implement problem-solving strategies to solve a problem in school or the community.
- 9.1.8.A.3 Summarize strategies used by various organizations and agencies to solve problems that impact communities, and compare them with strategies used by similar organizations in another state or country.
- 9.1.8.A.4 Design and implement a project management plan using one or more problem-solving strategies.

B. Creativity and Innovation

- 9.1.8.B.1 Use multiply points of view to create alternative solutions.
- 9.1.8.B.2 Assess data gathered to solve a problem for which there are varying perspectives (e.g., cross-cultural, gander-specific, generational), and determine how the data can best be used to design multiple solutions.

C. Co'laboration, Teamwork, and Leadership

- 9 1.3.0. 1 Determine an individual's responsibility for personal actions and contributions to group activities.
- 9.1.8 C.2 Demonstrate the use of compromise, consensus, and community building strategies for carrying out different tasks, assignments, and projects.
- 9.1.8.C.3 Model leadership skills during classroom and extra-curricular activities.

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Generalized Accommodations List for All Lessons/Curriculum:

Accommodations & Differentiate Instruction, depending on individual student needs (students with an IEP, MLL Students; Students At Risk; Gifted Students) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explana ion models, illustrations, assignments written on board)
- Directions repeated, clarified or reworded
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- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Provide tutorial video(s)
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use manipulatives to teach or derion trate concepts

Response Accommodations

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use of calculator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Worl or take a test in a different setting, such as a quiet room with few distractions
- S't where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations

- Take more time to complete a task or an assessment
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations

- Take more time to complete a project
- Take sections of a test in a different order

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• Take a test at a specific time of day

Organization Skills Accommodations

- Use an alarm to help with time management
- Mark texts with a highlighter
- Break down tasks into manageable units
- Use of checklists
- Provide organizers/study guides

Assignment Modifications

- Provide larger white work space
- Allow for oral rather than written responses
- Answer fewer or different questions
- Assign questions aligned to different levels such as emerging, proficient, and/or advanced.
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material related to the same mathematical concept (such as continuing to work on same concept with easier numbers or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get assessed using a leveled standard/concept (emerging, proficient, and/or advanced) than the one for classmate

Differentiated Lesson(s) for this Unit

Accommodations & Differentiate Instruction, depending on individual student needs (Please refer to each individual student's 504 Plan) by:

Presentation Accommodations

- Present information via the visual modality(written material to supplement oral explanation, models, illustrations, assignments with non-board)
- Directions repeated, clarified or reworded
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- Work with fewer items per page or line and/or materials in a larger print size
- Be given a written list of instructions
- Have anothe student share class notes with him
- Be given a tudy guide to assist in preparing for assessments
- Use manipulatives to teach or demonstrate concepts

Response Accommodations

- Use of valculator
- Use of a math grid
- Use a word processor to type notes or give responses in class

Setting Accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where student learns best (for example, near the teacher & away from distractions)
- Take an assessment and/or assignment in small group setting

Timing Accommodations

- Take more time to complete a task or an assessment
- Take frequent breaks, such as after completing a task

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Organization Skills Accommodations

- Property of Bedininster Township School