Unit 6: Bonus Unit - Step up to 4th Grade

Content Area: **Mathematics**
Course(s): **Mathematics**
Time Period: **Marking Period 4**
Length: **3 Weeks**
Status: **Published**

Unit Overview

In this unit, students will preview elements of the 4th grade math curriculum

Standards

MA.4.OA.A.3	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
MA.4.OA.B.4	Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
MA.4.NBT.B.5	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
MA.4.NBT.B.6	Find whole-number quotients and remainders with up to four-digit dividends and one-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.
MA.4.NF.B.3d	Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
MA.4.NF.C.6	Use decimal notation for fractions with denominators 10 or 100.

Essential Questions

Application of Knowledge and Skills...

Students will know that...

- An algorithm can help record the partial products when multiplying
- Factors are the numbers multiplied to find a product

Students will be skilled at...

- Finding the factors of a number
- Multiplying 2-digit numbers by 1-digit numbers
- Practicing recording information necessary for a division problem
- Understanding the relationship between fractions and decimals
- Using arrays to find products using place-value blocks and pictures
- Using arrays to multiply by 10 and 100
- Using modeling to subtract fractions
- Using models to add fractions with like denominators
- Using place value to help divide

Assessments

- Basic Facts Timed Tests
- Benchmark Tests
- End of Year Test-administered after completing program
- Placement Tests-administered prior to delivering program.
- Task Cards
- Topic Math Projects
- Topic Quick Check
- Topic Tests

Activities

Problem of the Day-Present a daily problem that serves as a review from the previous day's lesson.

Vocabulary - Have students create a chart for each new vocabulary word that includes the word's meaning and an example or use vocabulary cards as flash card game

Station activities- Each section has center activities to reinforce skill (leveled)

- Clip and Cover- Students answer questions and try to cover four spaces in a row on a gameboard to win.
- Display the Digits- Students answer the problem and display the tile that represents the answer.
- Quick Questions- Toss number cubes and answer questions.

- Team Work- Students in turn explain the steps in a multi-step process.
- Think Together- Students choose and discuss answers to problems.
- Tic Tac Toe- Students use algebra to compute solutions to problems.
- Toss and Talk- Students toss number cubes and explain how to solve resulting problems.

STEM - Certain sections have Going Digital integrating technology and the use of calculators such as:

- Factoid Topic Opener Math Project, p 241E

Interactive Learning - Problem-Based Interactive learning activities at the beginning of each topic

Practice work - Communicator practice can be done using Independent work and problem- solving practice problems in each section.

Ticket to Leave - Quick Checks on each sections

Activities to Differentiate Instruction

General strategies for modification of this curriculum for students with special needs, ELL, and gifted learners:

- **General strategies:**
  - preferential seating
  - manipulatives
  - modified workbook pages
  - practice or enrich homework pages
- **Center activities** - There are leveled center activities for each section. There is a separate activity for "Intervention", and then "On-Level" and "Advanced" are in spiral book.
- **Leveled practice pages** - There are three leveled (Reteaching, Practice, and Enrichment) sheets that can be used for practice or homework.
- **Math Concept Readers:** These readers allow the student to read the story at different levels- above level, on level, and below level. (also available on line with audio) Complete the Think and Respond and Write Math questions at the conclusion of each book.
- **Assessment**- Using Quick Check Review can determine differentiated instruction levels using sample answers and using the rubric at the Close/ Assess and Differentiate section in the teacher edition.

Resources

Topics Categories in book form:

Step up to Grade 4

Master Enrichment pages

Master Reteaching pages

Master Practice pages

Student Edition workbook

On line Resources available at www.pearsonrealize.com

- Teacher Edition (TE) Textbook
- Student Edition (SE) Textbook
- Tests on line
- Concepts videos
- Math Tools

21st Century Skills

CRP.K-12.CRP2.1	Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation.
CRP.K-12.CRP4.1	Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.
CRP.K-12.CRP8.1	Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.