Unit 2a-Use Strategies And Properties To Multiply By 2-Digit Numbers

Content Area: **Math**
Course(s): **Math 4**
Time Period: **Marking Period 2**
Length: **MP1 Topic 4 4-1 to 4-7**
Status: **Published**

Essential Questions

- How can you use a model to multiply?
- How can you use the Distributive Property to multiply?
- How can you use multiplication to solve problems?

Big Ideas

- **Estimation:** Students will use rounding to estimate products. Students will use estimation to check the reasonableness of their answers.
- **Models and the Distributive Property:** Students will use arrays, area models, and the Distributive Property throughout the topic as they use partial products to find the product of two 2-digit numbers.
- **Problem Solving:** Students will apply strategies for whole-number multiplication to solve real-world problems.

CRLLKS- Career Education

9.2.5.CAP.1: Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.

9.2.5.CAP.3: Identify qualifications needed to pursue traditional and non-traditional careers and occupations.

9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.

Connection:
Use real world mathematical problems involving perimeter and/or area. Include job roles such as architects, construction workers, etc. to solve perimeter and/or area word/story problems.

Cross-Curricular Integration

Integration Area: Language Arts

L.4.1.f Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.

L.4.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Activity:

Students will create word problems involving one or more of the four mathematical operations. They will need to use proper sentence structure, grammar, and conventions.

CSDT Technology Connection

8.1.5.AP.1 Compare and refine multiple algorithms for the same task and determine which is the most appropriate.

Enduring Understandings

Operations and Algebraic Thinking

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. Students may obtain data and information to describe that energy and fuels are derived from natural resources and their uses affect the climate and solve multistep word problems based on the data collected.

Number and Operations in Base Ten

4.NBT.B.5 [M] 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.

Mathematical Practices Focus

1. Make sense of problems and persevere in solving them.