Unit 2b-Use Strategies & Properties To Divide By 1-Digit Divisors

Content Area: **Math**
Course(s): **Math 4**
Time Period: **Marking Period 2**
Length: **MP2 Topic 5 5-1 to 5-10**
Status: **Published**

Essential Questions

- How can mental math be used to divide?
- How can quotients be estimated?
- How can the steps for dividing be explained?

Big Ideas

- **Estimation:** Students will use compatible numbers or multiplication to estimate quotients. Students will use estimation to help them determine partial quotients and to check the reasonableness of their answers.
- **Relationship Between Multiplication and Division:** Students will explore how multiplication plays a key role in using the strategies of partial quotients and sharing to divide.
- **Models:** Students will use place-value blocks, drawings, counters, arrays, and area models throughout the topic to enhance their understanding of division.
- **Choose a Strategy to Divide:** Students will choose a strategy from the topic to divide and solve problems.
- **Problem Solving:** Students will apply strategies for whole-number division to solve real-world problems. Students will model math problems with drawings or diagrams to solve.

CSDT Technology Integration

8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.

Activity:

Students will work independently in the IXL program to answer questions about division. The specific skills in IXL related to this standard are E4 - E15. The program will track students progress and mastery of these skills.

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 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.

4.NBT.B.6 [M] 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.

Mathematical Practices Focus

4. Model with mathematics.