MP3c-Extend Multiplication Concepts To Fractions

Content Area: **Mathematics**
Course(s): **Math 4 Resource Room**
Time Period: **Marking Period 3**
Length: **MP3 Topic 10 10-1 to 10-6**
Status: **Published**

Essential Questions

- How can you describe a fraction using a unit fraction?
- How can you multiply a whole number by a mixed number?

Big Ideas

- **Multiplication and Unit Fractions:** Students come to understand that they can think of a fraction as a product of a whole number and a unit fraction. Students will multiply fractions with like fractions.
- **Word Problems Involving Fractions:** Students apply their knowledge of fraction multiplication to solve problems.

Enduring Understandings

Number and Operations—Fractions

4.NF.B.4[M] Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

4.NF.B.4a[M] Understand a fraction a/b as a multiple of 1/b.

4.NF.B.4b[M] Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number.

4.NF.B.4c[M] Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.

Measurement and Data

4.MD.A.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Mathematical Practices Focus

4. Model with mathematics.