# Fourth Grade Mathematics Newsletter

Marking Period 3, Part 1

| MT | Learning Goals by Measurement Topic (MT)<br>Students will be able to . . . |
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| **Operations and Algebraic Thinking** | • identify **factor** pairs of a whole number within 100.<br>• recognize that a whole number is a multiple of each of its **factors**.<br>• identify whole numbers within 100 as prime (a number that has only two **factors**) or composite (a number with more than two **factors**). |
| **Number and Operations - Fractions** | • identify **equivalent fractions**.<br>• compare fractions with different numerators and denominators.<br>• compose (put together) and decompose (separate) to add and subtract fractions.<br>• add and subtract mixed numbers with like denominators.<br>• solve word problems involving addition and subtraction of fractions. |
| **Measurement and Data** | • create line plots to display measurement data and interpret the data. |

| Thinking and Academic Success Skills (TASS) | | |
|---|---|---|
| | It is . . . | In mathematics, students will . . . |
| **Evaluation** | weighing evidence, examining claims, and questioning facts to make judgments based upon criteria. | • compare the value of two fractions and explain reasoning.<br>• justify the strategy used to compare fractions.<br>• decide which strategy is most effective and efficient in identifying factors and multiples. |
| **Metacognition** | knowing and being aware of one's own thinking and having the ability to monitor and evaluate one's own thinking. | • connect prior knowledge of fractions to compare fractions.<br>• ask questions to clarify learning tasks and self-assess progress.<br>• connect prior knowledge of composing and decomposing whole numbers and apply to fractions.<br>• share and exchange strategies used to solve word problems. |

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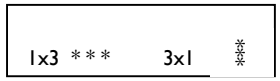
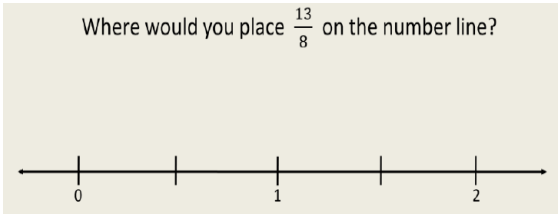
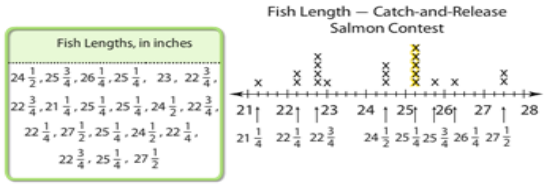
## Learning Experiences by Measurement Topic (MT)

| MT | In school, your child will . . . | At home, your child can . . . |
|---|---|---|
| **Operations and Algebraic Thinking** | • use rectangular arrays to find **factors** of a number to determine whether a number is prime or composite.<br><br>Example: 3 is prime because the only arrays that can be made are…<br>  <br> | • practice multiplication and division facts 0-10.<br>• find factors of a number. Example: Use a set of 24 objects. Show all the ways 24 can be divided to make equal groups.<br>• explore multiples of 6 using a six-pack of water. Ask how many water bottles are in 1 pack, 2 packs, 3 packs, etc. (6, 12, 18…)? Expand this by using other products at the grocery store. |
| **Number and Operations - Fractions** | • identify equivalent fractions, compare fractions, and compose and decompose fractions using various strategies such as number lines, pattern blocks, and models.<br><br>Example:<br>  <br> | • ask questions about comparing fractions. Example: "Is the fraction greater or less than one-half? Is the fraction greater than one or less than one? How do you know?"<br>• discuss equivalent fractions using pizza, sheet cake, or pie. Example: Given a pizza with a total of 8 slices of equal size, discuss that one-half of the pizza is the same as four of the eight slices. One-fourth of the pizza is the same as two of the eight slices.<br>• practice doubling or tripling the amount of ingredients needed for favorite recipes that have fractional measures. |
| **Measurement and Data** | • organize data that includes fractions using a line plot and answer questions about the data.<br><br>Example:<br>  <br> | • measure ten objects (shoes, cups, tables, books, etc.) to the nearest $\frac{1}{2}$, $\frac{1}{4}$, or $\frac{1}{8}$ inch. Arrange the objects in order from shortest to longest and record the measurements on a line plot. |

| Glossary | |
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| | **equivalent fractions**: fractions that have the same amount or value<br>**factors**: two numbers that when multiplied equal a product (e.g. factors of 12 are 2 x 6, 3 x 4, 1 x 12) |

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