## Grade 5 - N09 within Unit 10: Fractions, Decimals, and Addition & Subtraction of Decimal Numbers (Application of Partitioning)

N09 Students will be expected to relate decimals to fractions and fractions to decimals (to thousandths). [CN, R, V]

## **Performance Indicators**

**N09.01** Express, orally and symbolically, a given fraction with a denominator of 10, 100, or 1000 as a decimal.

**N09.02** Read decimals as fractions (e.g., 0.45 is read as zero and forty-five hundredths).

**N09.03** Express, orally and symbolically, a given decimal in fraction form.

N09.04 Represent the fractions  $\frac{1}{2}$ ,  $\frac{1}{4}$ , and  $\frac{3}{4}$  as decimals using base-ten blocks, grids, and number lines.

N09.05 Express a given pictorial or concrete representation as a fraction or decimal (e.g., 250 shaded squares on a thousandth grid can be expressed as 0.250 or 1000).

250

| Limited   | Developing   | Competent   | In-Depth  |
|---|--|---|---|
| Student can <b>express</b> , orally <b>or</b> symbolically, <b>some</b> fractions with a denominator of <b>10 or 100</b> as a decimal.              | Student can <b>express</b> , orally <b>or</b> symbolically, <b>some</b> fractions with a denominator of 10, 100, or 1000 as a decimal.                               | Student can <b>express</b> , orally <b>and</b> symbolically, <b>a given</b> fraction with a denominator of 10, 100, or 1000 as a decimal.                     | Student can represent <b>a given</b> fraction to the thousandths in a <b>variety of ways</b> (ex. 250 shaded squares on a thousandth grid 250 |
| Student can <b>read some</b> decimals to the <b>tenths and/or hundredths</b> as fractions.  | Student can <b>read some</b> decimals to the thousandths as fractions.   | Student can <b>read</b> decimals to the thousandths as fractions.   | can be expressed as 0.250 and $\overline{1000}$ ) and <b>explain</b> why the representations are equivalent.                                  |
| Student can <b>express</b> , orally <b>or</b> symbolically, <b>some</b> decimals to the <b>tenths and/or hundredths</b> in fraction form.           | Student can <b>express</b> , orally <b>or</b> symbolically, <b>some</b> decimals to the thousandths in fraction form.  | Student can <b>express</b> , orally <b>and</b> symbolically, <b>a given</b> decimal to the thousandths in fraction form.                                      |   |
| Student can <b>represent</b> the fraction one-half as a decimal using base-ten blocks <b>or</b> grids <b>or</b> number lines.                       | Student can <b>represent</b> the fractions one-half, one-quarter <b>and</b> three-quarters as decimals using base-ten blocks <b>or</b> grids <b>or</b> number lines. | Student can <b>represent</b> the fractions one-half, one-quarter <b>and</b> three-quarters as decimals using base-ten blocks, grids, <b>and</b> number lines. |   |
| Student can express <b>some</b> pictorial <b>or</b> concrete representation to the <b>tenths and/or hundredths</b> as a fraction <b>or</b> decimal. | Student can express <b>some</b> pictorial <b>or</b> concrete representation to the thousandths as a fraction <b>or</b> decimal.                                      | Student can express <b>a given</b> pictorial <b>or</b> concrete representation to the thousandths as a fraction <b>or</b> decimal.                            |   |