

FIFTH GRADE MATHEMATICS

June 2021

Mathematical Practice Standards: Make sense of, communicate, connect, and justify mathematical ideas to support understanding and learning across all mathematical concepts

- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure
- Look for and express regularity in repeated reasoning

Represent and Understand Multiplication and Division

- Fluently multiply multi-digit whole numbers using the standard algorithm (5.NBT.5).
- Divide whole numbers with up to four-digit dividends and two-digit divisors (5.NBT.6).
- Multiply and divide decimals to hundredths. Dividing decimals is limited to a whole number dividend with a decimal divisor or a decimal dividend with a whole number divisor (5.NBT.7).

Develop Understanding of Fractions

- Students use equivalent fractions as a strategy to add and subtract fractions with unlike denominators including mixed numbers (5.NF.1-2).
- Fractions are interpreted as division of the numerator by the denominator (5.NF.1-2).
- Multiply a fraction or whole number by a fraction including real-world problems (5.NF.4,6).
- Interpret multiplication as scaling (5.NF.5).
- Divide unit fractions by whole numbers and whole numbers by unit fractions using reasoning about the relationship between multiplication and division (5.NF.7).

Generalize and Use Place Value Understanding

- Students understand patterns in place value including decimals and powers of ten (5.NBT.1-3).
- Add, subtract, multiply and divide decimals to hundredths (5.NBT.7).

Understand Concepts of Volume

- Students recognize volume as an attribute of three-dimensional space. Students understand concepts of geometric measurement and volume as well as how multiplication and addition relate to volume (5.MD.3-5).

Supporting Standards: Place Value, Measurement and Data, Geometry

- Write and interpret numerical expressions and analyze patterns and relationships (5.OA.1-3).
- Convert like measurements within a given measurement system (5.MD.1). Represent and interpret data (5.MD.2).
- Graph points on the coordinate plane to solve real-world problems in quadrant one (5.G.1-2) Classify two-dimensional figures into categories based on their properties (5.G.3-4).

