



## GRADE 5 : NUMBERS

4. Apply mental mathematics strategies for multiplication, such as:
  - annexing then adding zero
  - halving and doubling
  - using the distributive property.
7. Demonstrate an understanding of fractions by using concrete, pictorial and symbolic representations to:
  - create sets of equivalent fractions
  - compare fractions with like and unlike denominators.
9. Relate decimals to fractions and fractions to decimals (to thousandths).
10. Compare and order decimals (to thousandths) by using:
  - benchmarks
  - place value
  - equivalent decimals.

## +Resources

**Diagnostic for various Multiplication and Division strategies (Marian Small) - [Click here](#)**

### **Note for teachers:**

- *Very good diagnostic and assessment pieces*
- *Can be done in many separate settings*
- *Can be used as warmup problems or exit slips*
- *Can be used with Equality and with Operations*

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**Accompanying support to interpret the above diagnostic - [Click here](#)**

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**“Fractions - Exploring Part/Whole Relationships” - [Click here](#)**

### **Note for teachers:**

- ***Many good ideas but does too much leading to the answer, which does not allow for critical thinking about big ideas***
- ***Does a good job of looking at misconceptions that may arise***

Go to “Fractions - Exploring Part/Whole Relationships”

- *May be most valuable as a teacher resource with ideas for classroom activities*
  - *This should not be the first activity for kids as it does not allow for them to learn new ideas on their own*
  - *Many good ideas but does too much leading to the answer, which does not allow for critical thinking about big ideas. However, it does look at many misconceptions that may arise.*
1. *“Representing Simple Fractions” (Look at Activities 1.1 to 1.5)*
  2. *Look at all 3 representations for fractions (area, set, linear/measurement)*
  3. *“Forming and Naming Equivalent Fractions” (Activities 2.1 to 2.4)*
  4. *“Comparing Simple Fractions” (3.1 to 3.4)*
  5. *“Forming Equivalent Fractions by Splitting or Merging Parts” (Activities 4.1 to 4.3 provide contexts for discussing fractions)*



# Elementary Mathematics Professional Learning

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## +Resources

**ExploreLearning Gizmo - Percents, Fractions, and Decimals (html)** - [Click here](#)  
Found on LearnAlberta, must log in)

**Note for teachers:**

*May be used as an exploratory extension in Gr. 5, appropriate for Gr. 6.*

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**Fractions Models** - [Click here](#)

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**Comparing Decimals (hundredths)** - [Click here](#)

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**Decimal Sorts (hundredths)** - [Click here](#)

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Developing Mathematical Fluency (Wheatley & Abshire, 2002) - Decimal Balance pp. 171-178.

**Note for teachers:**

*To be used as a mental math starter with students, powerful discussion piece, not to be used as paper/pencil tasks.*

## GRADE 5 : PATTERNS & RELATIONS

**Equations, Balance, Variables and Algebra Tiles** - [Click here](#)

This lesson shows how students can represent and solve for unknown numbers by using the idea of balance (same as / equality), concrete shapes, variables and then algebra tiles to build their understanding about algebra.

