

**The Revised Program of Studies, Mathematics, 2007 challenges us to teach for understanding. Teachers need to reconsider what evidence demonstrates that children do indeed understand mathematics. What should we see them do, say, record, explain, represent?**

“As part of the study of mathematics, students look for relationships among numbers, sets, shapes, object and concepts.

The search for possible relationship involves collecting and analyzing data and describing relationships visually, symbolically, orally or in written form. P. 11)

“Reasoning skills allow students to use a logical process to analyze a problem, reach a conclusion and justify or defend that conclusion” ( p. 9)

“Students can explore and record results, analyze observations, make and test generalizations from patterns, and reach new conclusions by building upon what is already known or assumed to be true.” ( p. 9)

“Students must feel comfortable taking intellectual risks, asking questions and posing conjectures (p.2)”

**Visualization, mental imagery and spatial reasoning are central to the understanding of mathematics!!!**

**The test of an activity or assessment:**

It engages students in the process skills:

**Communicating**

**Connecting**

**Reasoning**

**Problem Solving**

**Visualizing**

**Mental Math and Estimation**

**Technology**

to build and examine mathematical relationships.

In order to build understanding students must be expected to



**Build**  
**Explain**  
**Represent**  
**Compare**  
**Synthesize**

They can explain what they have learned and how they can apply it.

## Ask your students: What is Math?

### Why do we care?

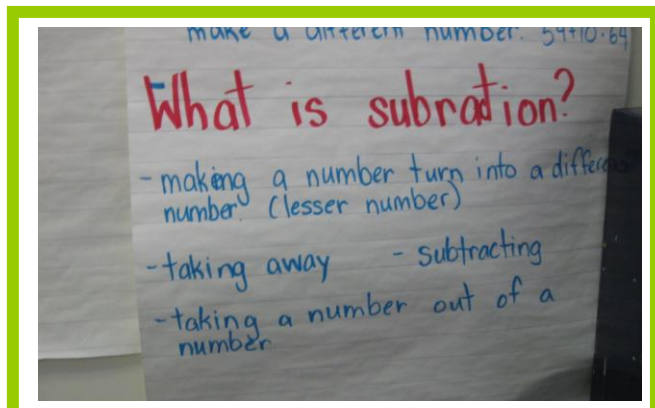
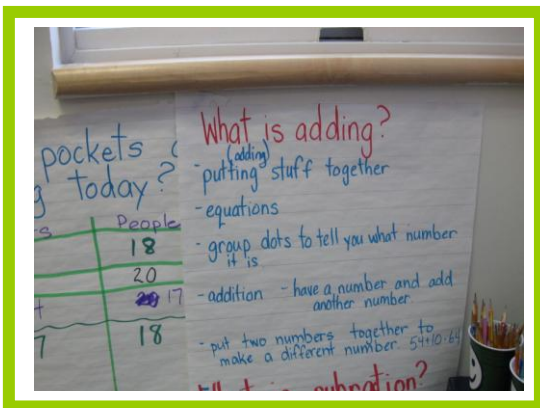
Because if we expect to make students responsible for setting and achieving their own personal learning goals, which is clearly stated in the curriculum document, we must begin by making sure they know what math is.

### What do we hope they will say?

That is part of the journey we are on. What is Grade 2 Math?

1. We want students to understand that math is not counting but rather counting effectively.  
Recognize the count, trust the count, count in collections. Use fives and tens to make the count efficient.
2. Practise and apply strategies for solving problems.  
Build to ten, build across ten, use doubles, know some facts and use them to find more. Trust relationships like inverses: if you can add, you can subtract. The commutative property: you can add numbers in any order. The equal sign tells you both sides are the same quantity.
3. Decompose and recompose two digit number.  
Understand the relationships between them. See them on number lines and in hundred grids. Combine and compare two digit numbers. Build mental strategies for adding and subtracting that let you use less paper and more thinking.

## Grade 2 Students Said:



## Grade 2 Teachers Said

