

The mathematical processes:

Note: *Although these processes are described separately, these are interwoven aspects, not discreet ones and often are used in concert within any mathematical context.*



Communication – includes representation of mathematical concepts. Communicating and representing help kids to solidify and commit to an understanding. [C]

Connections – to prior knowledge, to other math, to other subject areas, to the world, includes notion of problem-posing [CN]

Mental math and estimation – to develop fluency with the operations. Visualization critical. [ME]

Visualization - Thinking in pictures and number. Thinking about number, referents, comparisons. Considering: “What does it look like?” [V]

Problem-solving – recalling that there are lots of ways to solve a problem... and/or lots of ways to get there. Focusing on honouring children's solution methods. [PS]

Reasoning – explaining their thinking, their processes and procedures for arriving at a solution or choosing an operation to apply. [R]

Technology – up to grade 3, students should be able to solve problems without a calculator , but it is important to use technology both in the modeling and expression of mathematical thought, and to have children use calculators effectively. [T]

