

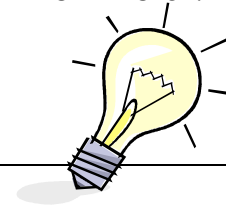
Math...

Important things to know



There is a new curriculum in BC - and all of western Canada. This is its first year of optional implementation. Look for it on line at: http://www.bced.gov.bc.ca/irp/irp_math.htm

This new Math curriculum focuses on **BIG IDEAS:**



<p>Number sense</p>	<p>What is 5? What is 10? Why are these numbers important? How can we break a quantity apart? How can we put it back together again? What happens to the quantity when we do that? How does thinking about 10 help?</p>
<p>Understanding the operations</p>	<p>Addition means to join sets. Subtraction means to separate or to find the missing part. Multiplication is repeated addition ("groups of"). We can use skip counting to get there. We can think about a rectangle ("rows of") when we multiply. Division is sharing. All the operations involve breaking apart quantities and putting them back together. There are lots of strategies we can use. It is important to have many strategies for adding, subtracting, multiplying and dividing.</p>
<p>Spatial sense</p>	<p>Shapes can be sorted and described by paying attention to their attributes (angles, lines, symmetry). There are 2-D shapes (triangles rectangles) and 3-D shapes (spheres, prisms).</p>
<p>Patterns</p>	<p>Patterns repeat. Some patterns grow. We can make patterns with materials, with our bodies and with numbers.</p>
<p>Relationships within patterns</p>	<p>We can read a pattern to make predictions. Number patterns grow in a predictable way. We can talk about how one part of a pattern depends on another.</p>
<p>Equality and inequality (starts in grade 1)</p>	<p>The equals sign means "is the same as". It shows when things are balanced. We can use logic to solve problems and to find missing parts.</p>
<p>Understanding Data (starts in grade 2)</p>	<p>Data is information. We organize data into charts and graphs to make it easier to read. We can use data to make predictions or to make inferences.</p>
<p>Exploring Probability (starts in grade 5)</p>	<p>We can use fractions or percents to describe the chance of something happening.</p>



The Mathematical Processes



Our new curriculum focuses on **MATHEMATICAL PROCESSES** or ways of thinking.



The process:	What teachers and parents can ask...
Communication	Can you talk about your thinking? Can you draw your ideas? Can you build it with materials? Can you show me HOW you know?



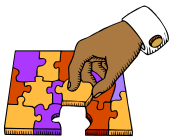
Connections	How is this like something you have done before? What does this make you think of? What other big math idea is connected to this one?
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Mental Math and Estimation	What strategy did you use to solve this problem in your head? How did it help you? What is the answer close to? How do you know if your answer is reasonable?
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Visualization	What image or picture do you see in your head when you think about this problem? How does it help you?
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Reasoning	How can you use logic to solve this problem? How do you know your answer makes sense?
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Problem-solving	Where should you start to solve this problem? What information do you know? What problem-solving strategy could you use? How well did it work for you?
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Technology	What tools could you use to solve this problem? (some counters, the computer, a calculator, etc.) When is a tool helpful?
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How can I help my child?

Help him or her to think! Ask questions. Talk about the BIG MATH IDEAS. Play strategy-building games. Focus on understanding... not tricks!



Where can I go for ideas?

<http://mindfull.wordpress.com> (Carole Saundry's blog) Look for **MATH TOOL KITS**
<http://nlvm.usu.edu/en/nav/vlibrary.html> National Library of Virtual Manipulatives