

# Planning the Levels of Knowing Mathematics\*

For planning math units, lessons, and/or activities at all levels.

How can you effectively move your learners through the levels of knowing?

Target or objective:		
	Levels of Knowing	Activity
<b>Challenge yourself to include these levels in your instruction!</b>	<b>INTUITIVE</b> <i>Connect to what the learner knows</i>	
	<b>CONCRETE</b> <i>Hands on</i>	
	<b>PICTORIAL</b> <i>A visual representation</i>	
<b>Often, texts and worksheets focus on these levels.</b>	<b>ABSTRACT</b> <i>Numbers and symbols</i>	
	<b>APPLICATION</b> <i>Math within a context</i>	
<b>COMMUNICATION</b>  <i>Ask questions of learners and provide time for them to talk about math to you and each other.</i>		

\*Planning tool created by Lindsey Cermak and Amy Vickers, 2013 based on Levels of Knowing Mathematics (Mahesh Sharma).