



**Revising: KWL Chart
(I Know, I Wonder, I Learned)**

MATHEMATICS Grades 10 - 12

“I Know, I Wonder and I Learned” is a strategy that is used at the beginning of a lesson to activate prior knowledge and the end of a lesson to consolidate and debrief.

Purpose

- To give students the opportunity to activate prior knowledge, ask questions about a topic, and then consolidate and debrief once the lesson has been taught.

Payoff

Students will:

- connect to prior learning on this topic.
- ponder mathematics, and then have a chance to have their questions answered.

Tips and Resources

- Be certain to collect the student papers once the first two thirds have been completed. Cut the last third off and only hand it back at the end of the class for consolidation. A template is not needed if students divide their papers into thirds.
- A good idea is to do a consolidation and debriefing with the entire class before you ask the students to individually write the “I learned” third of their paper.
- Remind students that their communications and reflections will be assessed.

Reference: *Beyond Monet – Reading in Mathematics* by Mary Lee Barton.

Further Support

- Tell the students the night before the lesson, what the topic is going to be as this will give them time to look over previous course grade notes for the topic.
- The topics for this activity could be used for a word wall.



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Notes

What teachers do	What students do
<p>Before</p> <ul style="list-style-type: none"> Decide on a template, or uniform way for the students to fold their papers. Remind students that this will be used as an assessment piece. Give students a template or ask them to label the sheet that they have folded to divide into thirds with the headings “I Know, I Wonder, and I Learned”. 	<ul style="list-style-type: none"> Actively listen to the instructions.
<p>During</p> <ul style="list-style-type: none"> Ask students to complete the “I know and I wonder sections” of their sheet individually. 	<ul style="list-style-type: none"> Read the text, pausing to record whatever they know about subject. Record whatever they wonder about the subject (e.g., what they would like to know about).
<p>After</p> <ul style="list-style-type: none"> Collect and keep some of the samples to use in other classes. Review the information gathered in the first two columns of the student work to gauge their knowledge of the lesson/topic to be studied. As well, look at their “I Wonder” third of the page to get an idea of their line of thinking (and interest) on the topic. 	<ul style="list-style-type: none"> Draw conclusions about their understanding of the lesson based on the debriefing given. Compare their own conclusions with those of others.



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MATHEMATICS Grade 10 Applied

Template :

I Know...	I Wonder...	I Learned...

Topics include :

What I Know about Functions....

What I Know about the Equation of a Line

What I Know about the Midpoint of a Line....

What I Know about Linear Systems....

What I Know about Factoring....

What I Know about Quadratic Functions....

What I Know about Similarity....

What I Know about Congruence....

What I Know about Trigonometry....



Teacher Resource

Mathematical Literacy: Literacy Tool Kits

MATHEMATICS Grade 10-12

Most of us have Math tool kits in our classrooms that have calculators and graphing technology in them. In order to reach all of the students in our classrooms we need to have literacy tool kits available for all of our students.

A literacy tool kit should include:

- Dictionaries
- Thesauruses
- Math Dictionaries
- Post-it-notes
- Writing utensils (pens and pencils)
- Crayons
- Pencil crayons
- Markers
- Scissors
- Manipulatives
- Chart Paper
- Graph Paper