

## The 'I Wonder Circle'

### Introducing your students to Scientific Method



**I Wonder:** notice, ask questions, state problems

**I Think:** consider, gather information, predict

**I Try:** experiment, model, test ideas, repeat

**I Observe:** watch, examine, measure

**I Record:** record data, organize, describe, classify, graph, draw

**I Discover:** look for patterns, interpret, reflect, conclude, communicate discoveries

### What is Scientific Method?

*“The scientific method is a process or method of research. A question is asked, information about the question is gathered, a hypothesis (prediction) is formulated from the information, and the hypothesis is put to test with an experiment to prove or disprove its validity. The results are analyzed and a new question may be formed.”*

Perhaps when you were in school the ‘science method’ was a very ‘deep thinking’ system to approach research. Therefore, it did not appear in our science lessons until well into our Middle School or High School experience. Today it is part of the ‘model curriculum’ at a very early age.

Enter the ‘I Wonder Circle’ a more user friendly approach to the steps for accepted science or any research. Today advancement in any topic of study, uses accepted science method. Therefore, whatever career our students decide to aspire to, they may use the method when advancing the knowledge of that field.

It is natural for a child to ask questions (I wonder). So their approach to the science method has already begun. To find the answers to their questions they naturally (think), (try) and (observe) the results. To help them build on these skills, we need to lead them into limiting variables, honing their observation skills, stressing the importance of making an accurate record of what they observe and to consider the results.

If you want to do something well, we need to exercise those skills. Here are a few simple exercises to build observation and recording skills into their approach to scientific study.

### Observing and recording what you see...

- Test your observation skills with a memory game: Make a collection of similar items; ex. leaves or pebbles. Choose one from the collection. Slowly look and try to remember its size, shape, color and anything particular about your selected item. Return it to the collection, mix the collection so your item is lost in the collection. Try to find your selected item using the features you observed. Did you find it? Good! Try it a few more times.
- Find any small item of interest (leaf, toy etc.): Slowly look at the item and note its size, shape, and color. Look away from the item and put into words or create a colored drawing from what you can remember, without looking back at the item. Compare your drawing to the item. How well did you observe and record what you saw? Try again, this time include more details; a hole in the leaf, a chip in the toy.
- Now, take a walk outside with a journal. Using your observation and recording skills, observe and record in your journal, with words and pictures whatever you observe; trees, animals, the weather etc.