

# Science Lesson #2

## *Becoming a Great Observer*

### (Sparkling Candle)

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### Introduction to Fables and Science

**Today's lesson** encapsulates my whole series of Fables & Science. You know,

**GOOD SCIENCE = GOOD OBSERVATION.**

Sometimes we are thinking about our day or our friends or the next meal when we are trying to concentrate. Today, I will light a simple candle and we'll do this great technique to help you stay observing instead of jumping to other thoughts. By the end of the

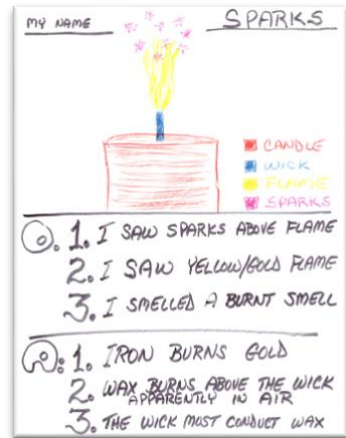
lesson I hope you will see that this is the heart of where science meets deeper spiritual practices. What I mean by this is that many spiritual traditions use some form of meditation or concentration. Well, observation can be meditation. If we can really bring our full attention to our candle today, you could say that we meditated on the candle. "In Japan, however, science students, who 'observe' phenomena, do so with quite a different meaning, and in quite a different spirit, from their Western counterparts. The word kansatsu, which is translated as 'observe', is closer to the meaning of the word 'gaze', which we use only when we are in a state of rapt attention in which we lose ourselves, and feel connected to the other. The syllable kan in kansatsu contains the nuance that the one who gazes comes to feel a 'one-body-ness' with the object of gaze." (McGilchrist, 2009, Locations 4559-4563) So, we are building character while we are becoming scientific thinkers. Good critical thinkers do not jump to conclusions [[Fable #5](#)] (Bickart, 2020, Volume 1), they gather all of the facts, then they use reasoning to sort them out.

### **Making an "O/A"**

(Observation/Analysis): "Sparkling Candle"

[1<sup>st</sup> graders through adults]

The way we will observe our sparkling candle is by using this powerful exercise of Making an “O/A” (*Observation / Analysis*) Here is an exercise in becoming conscious of using heart thought to *observe* and head thought to *analyze*. You can do this with any simple event. This one is a science demonstration we called, ‘Sparkling Candle’. It is accomplished by sprinkling some fine iron filings onto a lit candle and watching.



- *I like to conduct this demonstration interactively, with students calling out their observations. As each comment is called out, the class and I first decide if the proposed comment is truly an observation – without analytical thought. We are careful to be accurate. For example, we note details like: the golden color of the sparks, that the sparks occur above the flame, that the flame has parts and occurs above the wick. Once a class is adept at knowing the difference between observations and analyses, we often do the demonstration in silence, trying to achieve **kanatsu** (‘one-body-ness’ with the object of gaze).*

[\[Play video here to see live demonstration.\]](#)

- *Now, replay the demonstration in your mind. Try to be accurate - adding nothing of your own thoughts. This may be even more important than watching the demonstration the first time.*

- *Then we create an O/A together, if the class is not familiar with O/As. We try to draw the picture with simple artwork. It should take up as much of the upper half of the paper as possible, so as to enlarge the main parts that the observer wishes to show. We try to limit ourselves to four colors so that – like taking notes – we stay focused on the big picture. We color code and label our parts. Then we use the bottom half of the paper to write three observations and three analyses. With younger children, I call these, ‘what you saw, smelled, heard, tasted, or felt’ – ‘and what you think about it’. According to the students’ ages and familiarity, I do more or less of the drawing and writing with them.*

*\*Note that this process accents observations. We observed **four** times (doing it, replaying it in our minds, drawing it, then writing 3 ‘O’s). We only analyzed once at the very end when we wrote our 3 ‘A’s. This builds great character, while sharpening your critical thinking skills because it teaches you to suspend judgement until you have all of the facts.*

Click here for [printable blank OAs](#).

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**Now for a provocative thought.** We have described above a way to OBSERVE four times before going to ANALYSIS in our O/A! So ... to take this one level deeper, consider this. What if - as you replay an observation inside your mind - a little magic occurs. What if a ‘highlighter’ comes into your mind and shows you the more essential things that happened and drops away the inessential details. Wouldn’t that be something? Think about it. When you are taking notes while someone is speaking, you try to highlight the important parts, right? Well, did you ever notice

that your life has highlights. At any phase of your life you are more interested in certain things, than others. For instance, did you ever notice your nose or your voice or your voice, then see that aspect in everyone around you? You are highlighting. Well, perhaps the wisdom of your sub-conscious is always highlighting whatever is important for you at the phase of your life right now! Some studies seem to show that the sub-conscious mind is considerably more powerful than the conscious mind. So, if you replay an observation inside your mind, you have a chance for your incredibly intelligent sub-conscious to show you important takeaways from an experience.

Here is [[Fable #96](#)] (Bickart, 2020, Volume 2) below that portrays this provocative idea in story form.



## *#96 At Second Glance*



*A mouse was sent from heaven to earth on a mission to save a little girl. He was told to pay very close attention to the place where he would land, for it would have clues as to how to find this little girl. His instructions were very clear, “LOOK TWICE. Once with your eyes, and then with your mind.” But alas, as he descended, he saw so many new things that he could not decide which were important clues. He saw a beautiful meadow with poppies, a winding pathway, a fence with posts, a cute cottage with a red roof, a breathtaking sky full of blues and orange-pinks, and hills and dales beyond. Then he remembered to close his eyes to his outer vision and look again with the inner vision of his mind. There it was! As he played the whole scene again before his mind, he separated the inessential details and saw the essential path that directed his attention to the cottage. He opened his eyes, ascended the path and found the little girl.*

*INNER VISION COMPLETES OUTER VISION*

## Why Use Fables to Teach Science?

### **Conversation Starters**

- Do you tend more toward observation or analysis when watching people? How about when watching digital media? How about nature?
- Can you tell when you are completely mindful, observing and paying quality attention?
- When do you stop paying attention? What stops you.
- Do you think an inner replay of an event will shed light on the essential versus the inessential?

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### **References**

- Bickart, J. (2020). *Bickart's Just-in-Time Fables (Volume 3)* (Vol. 3). Asheville, NC: Red Shirt Interactive Group.
- McGilchrist, I. (2009). *The master and his emissary: the divided brain and the making of the Western world*. New Haven: Yale University Press.