**Observation Activities to start your school year**

Talk about the difference between Observations and Inferences. Observations can be made (appropriately) with all five senses.

*Students often find it difficult to tell the difference between making an observation and making an inference. It is important to understand that an observation is something that can be easily seen whereas an inference is a guess or idea that needs to be supported by evidence. For example, students can make the observation that a gecko has four short, skinny legs. They could then make the inference that the gecko moves very quickly because of the observable evidence of the leg shape. However, until the gecko has been observed moving quickly the guess is still an inference, not an observation.*

*[Observation vs. Inference Activity](https://nhmu.utah.edu/sites/default/files/attachments/Observation%20vs%20Inference%202017_0.pdf)*

Sherlock Holmes explains to John Watson, the difference between *seeing* and *observing*:

[The Art of Observation](https://fs.blog/2013/04/the-art-of-observation/)

[Observation & The Mystery Box](https://www.sciencelearn.org.nz/resources/430-observation-and-the-mystery-box)

Exploratorium: [Science Snacks](https://www.exploratorium.edu/snacks)

Walk in Wonder ([English](http://stemnorth.nbed.nb.ca/sites/stemnorth.nbed.nb.ca/files/doc/y2022/Oct/walk_in_wonder_1.pdf), [French](http://stemnorth.nbed.nb.ca/sites/stemnorth.nbed.nb.ca/files/doc/y2022/Oct/walk_in_wonder_french.pdf))

[Disappearing Pyrex beaker](https://www.exploratorium.edu/snacks/disappearing-glass-rods)(This activity can be done at the Middle School level to introduce refraction, or could also be used as a ‘natural phenomena’ provocation to practice observation skills at the 3-5 and 6-8 levels – Have students makes observations without telling them what is in the beaker)

[Bath Bomb Observation activity](http://stemnorth.nbed.nb.ca/sites/stemnorth.nbed.nb.ca/files/doc/y2020/Sep/bath_bomb_observation_activity.pdf)

<https://undsci.berkeley.edu/>

[Exploration and Discovery](https://undsci.berkeley.edu/article/0_0_0/howscienceworks_04)

[Observation beyond our Eyes](https://undsci.berkeley.edu/article/0_0_0/howscienceworks_05)

[NGSS Phenomena library](file:///C:\Users\krista.hamilton2\Downloads\NGSS%20Phenomena%20library) (<https://www.ngssphenomena.com/>, <https://www.ngssphenomena.com/searchable-phenomena> ) - Have students observe for 2-3 min, then answer the following questions in a journal: What do you see? What do you know? What do you wonder? – you can also share as a class on a board/online Padlet

Trevor MacKenzie – [Provocation Padlet](https://drive.google.com/file/d/1j322PtNcacgOO4lpWcL4FWL-0JMVSXJt/view)

[Deep Provocations based on Sustainable Development Goals](https://docs.google.com/presentation/d/1RNROASDcm1RqR7jgSkF99JeKMN_vTFTuJVi5Mky-HbE/edit#slide=id.p) Created by T [MacKenzie](https://drive.google.com/file/d/1tokmJQ3gJQQepcPlyyHIIclhBKaEAiPX/view" \t "_blank) - (Click Present mode then click on each SDG icon)

Critical Thinking Consortium - <https://tc2.ca/>

[More than meets the eye: The importance of making observations](https://www.scienceteacherprogram.org/genscience/Kaszczak03.html)

[The Art of Noticing](https://www.amazon.ca/Art-Noticing-Creativity-Inspiration-Discover/dp/0525521240)

Excerpts:

*Spend ten minutes looking out the window you most persistently ignore. Find one in your office or bedroom or wherever, the one you so take for granted that you forget its even there. Examine the edges of what the window makes visible. Find three things you’ve never noticed. Describe the scene in front of you. Next time you encounter a window that’s new to you, stop and look. Study the view. Tally the details. Look for movement. Think about what you can’t control. See what happens* (p. 24).

*Identify the weirdest thing in the room and ask about it* (p.159).

The Wonder of Science [google doc](https://docs.google.com/document/d/1vyOQBzVugeDj13lMHZDN4QNOg5DQpm_E9h28yTJ2M-g/edit) of phenomena  (99 pages K-12)