

I NOTICE, I WONDER, IT REMINDS ME OF

Learning how to observe, ask questions, and make connections in nature is learning how to learn. This powerful routine can be the foundation of exploration, discovery, and wonder in students' nature study and in any other academic discipline.

Time

Activity: 20–30 minutes
Discussion: 15 minutes



Materials

Journals and pencils



optional

Hand lenses

Teaching Notes

Take the time to introduce this routine to students as written. Just saying the words is not enough. The structure of this activity is designed to offer guided practice so that students can successfully learn and apply these new skills. The portion of this activity where students take a few minutes to study whatever is interesting to them is essential. Applying the routine in a new context helps students internalize these prompts as skills. The autonomy to decide what to explore gives students agency, engages them in the task, and makes this way of thinking “their own.”



This “core” routine is the first thing we do with a group of students in the outdoors. It sets up a culture of curiosity and exploration, and gives students a way to engage with their surroundings. It also forms the foundation of students' journaling.

You and your students can learn observation and fundamental inquiry skills through this simple routine. “I notice” focuses our attention and helps us articulate and remember our observations. “I wonder” sparks inquiry and invites us to question deeply and broadly. “It reminds me of” leads us to connect what we observe to what we already know, which builds stronger memories. The ability to make useful connections between seemingly unrelated things is an important aspect of creativity, and practicing “It reminds me of” builds this skill. Together, these prompts can change the way you and your students experience the world, offering a routine and practice for learning about anything.

NATURAL PHENOMENA

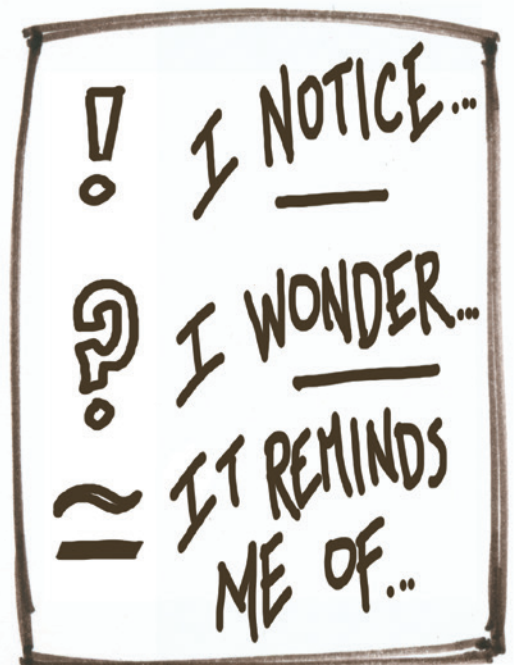
For the first part of *I Notice, I Wonder, It Reminds Me Of* (INIWIRMO), focus students' attention on a small part of nature they can hold in their hand, such as a leaf, pinecone, acorn, or seed pod. A larger organism that a whole group can observe together, such as a tree, will also work. Then introduce each of the three prompts as described in the “Procedure Step-by-Step” section, giving students time to practice responding to each one before moving on. When students get time to practice using the prompts on their own, any natural area that is safe for them to explore will work.

PROCEDURE SUMMARY

1. Make observations (I notice...).
2. Ask questions (I wonder...).
3. Make connections (It reminds me of...).
4. Use all three observation tools to learn about anything interesting to you.

DEMONSTRATION

When the whiteboard icon appears in the procedure description: Write each of the prompts (i.e., the words “I notice...,” “I wonder...,” and “It reminds me of...”) on a whiteboard as you introduce them.



PROCEDURE STEP-BY-STEP

- 1. Tell students that you will share some tools and skills that will help them be better observers.**

Note: If the group has a lot of energy and seems to be losing patience with being still, introduce “I notice,” then hike a short distance or give students a moment to run around, then add “I wonder.” Then hike or walk a little further and add “It reminds me of” with another found object. Then give students time to practice all three prompts focused on whatever is interesting to them.

- 2. Explain the first prompt: “I notice,” and offer examples**



- “We’ll start by making observations. I know I’m making an observation when I start my sentence with the words ‘I notice...’”
 - “An observation is something perceived through the senses like sight, smell, touch, hearing, or taste. It is not an opinion about or an identification of an object.”
 - “An example of an observation could be, ‘I notice the veins stick out of the surface of the leaf’ or ‘I notice the side of the leaf feels sharp.’”
- 3. Tell students that they’ll take the next minute to observe their leaves (or other object), saying what they notice out loud with a partner.**

- “Take the next minute to come up with as many ‘I notices’ as possible, saying all of them out loud to the person next to you. You all will be surprised by how much you see and remember.”
- “Anything you see—like shapes, structures, behavior, or colors—or perceive through your other senses is fair game.”
- “If you get stuck, you can just be silent for a moment, try changing your perspective, or try using a different sense to observe. You can also listen to the observations that others share, and build on or confirm what you hear. Give it a try.”

- 4. Give students ~1 minute to say observations out loud with their partners, then ask a couple of students to share any interesting observations with the group.**

- 5. Explain the second prompt: “I wonder.”**



- “Now we’re going to focus on asking questions, using the frame ‘I wonder.’”
- “Start asking questions (‘I wonders’) out loud. Do not be afraid of asking questions. The point is not to answer them now but just to get them out there. Any question is OK. Saying the question aloud will help you remember it later.”
- “If no questions come to you, try saying ‘I wonder...’ and see what fills the silence afterward. A question may come.”
- “You can also go back to making observations and then ask questions about your observations.”

- “If you make this a regular practice, questions will flow more easily. You can make yourself a more curious person! Take the next minute to come up with questions, saying them out loud.”

- 6. Give students ~1 minute to ask questions out loud with their partners, then ask a couple of students to share any interesting questions with the group.**

- 7. Introduce the third prompt: “It reminds me of.”**



- “Now ask yourself what you are reminded of. Try to come up with as many connections as you can.”
- “Is this like something you studied before, observed somewhere else, read about, or saw on a nature special?”
- “Have you seen this kind of object before? Does the shape or structure look like or remind you of something else?”
- “Your connections could also be to an experience you were reminded of. Do you have any other memories that surface when you look at this?”
- “Give yourself permission to be creative and playful. Any connection that comes to mind is important to share.”

- 8. Tell students to take ~1 minute to share “It reminds me of” with a partner, then give a few students the opportunity to share some of their interesting connections with the group.**

- “Connecting this new observation to what you already know will help you remember what you are seeing. This can also help you ask interesting questions.”
- “Take a minute to make connections and say them out loud.”

- 9. Ask students to reflect on how much they were able to learn in just a few minutes of focused attention.**

- “Take a look at your leaf [rock, stick, or other part of nature]. You were able to learn a lot about that leaf in a very short time, all by making your own observations and doing your own thinking.”
- “Look around you at the other natural objects and things nearby. There are mysteries and cool things everywhere in nature.”
- “When you have tools for making observations and connections and for asking questions, you can learn and discover wherever you go.”

- 10. Tell students that they’ll have a few minutes to move around and use their observation skills to learn about anything that is interesting to them.**

- “You’re going to have some time to use your new skills to study and learn about anything that’s interesting to you in this area.”
- “You can be by yourself or in a group of two or three.”

- c. "No matter how many others you are with, say your observations, questions, and connections out loud."
 - d. "You might choose to move around and study different things, or you might find something really interesting and exciting and stay with it for a while."
11. Offer any relevant safety precautions and set boundaries based on the needs of your students and the area they're exploring, then send them off.
 12. As students work, take time to circulate, troubleshoot, and engage students in conversation about what they're noticing.
 - a. (Optional) If a group of students finds something especially cool or interesting, call the whole class over, then ask students to share their observations, questions, and connections out loud.

DISCUSSION

Facilitate a discussion with the general discussion questions.

General Discussion

- a. "What are some things you learned through your observations, thinking, and questioning?"
- b. "What skills do you feel like you just got better at?"
- c. "Are there any other places where you could use your observation skills to learn?"

FOLLOW-UP ACTIVITIES

A Routine to Use Anytime

INIWIRMO can become a regular part of instruction. Use it as the entry point for students' learning whenever they encounter an

unfamiliar phenomenon or whenever you are beginning a lesson or unit of curriculum.

Once a group of students knows this routine, it can be applied on a moment's notice. When a bird lands nearby, you can tell students "Quick! While the bird is here, let's see what you can learn about it using your observation skills. Go!" By the time the bird flies away, your group will have made rich and detailed observations. You can ask, "What were some of the most interesting observations you made or heard one of your classmates say? What were some questions that came up? What things did this remind you of?" Responses will come flooding back. These responses can be recorded in journals or included in future meaning-making discussions that take place as a class.

Thinking on the Page

This routine can become a foundation of students' journaling. Students can record written or sketched "I notice, I wonder, It reminds me of" in any future journaling activity. If students are unsure where to begin, or get stuck, they can always fall back to noticing, wondering, and making connections.

Working in Other Disciplines

I Notice, I Wonder, It Reminds Me Of can enrich any subject, not just nature observation. The prompts in this activity are sentence frames you can use in active reading strategies or to help students analyze art. Similar frameworks are sometimes used in theater, where actors develop characters by writing down what they notice, wonder, and are reminded of while reading a script. Using these three sentence starters can be a way to begin to write poems or other creative works. Many mindfulness practices center on the act of noticing, separating the observations from interpretations of them. This use of the routine can become a part of students' social emotional learning, helping them slow down and develop self-regulation. Share these connections with students and ask them if they can think of any other uses of the routine.