

Mindful Seeing

What is Mindful Seeing?

Crimson or ruby? Ovoid or oblong? Smile or smirk? Our ability to visually distinguish precise details has given rise to a very rich and precise descriptive vocabulary. Mindful seeing enables us to better observe ourselves, other people, and our surroundings to more fully enjoy and learn from them.

Why Practice Mindful Seeing?

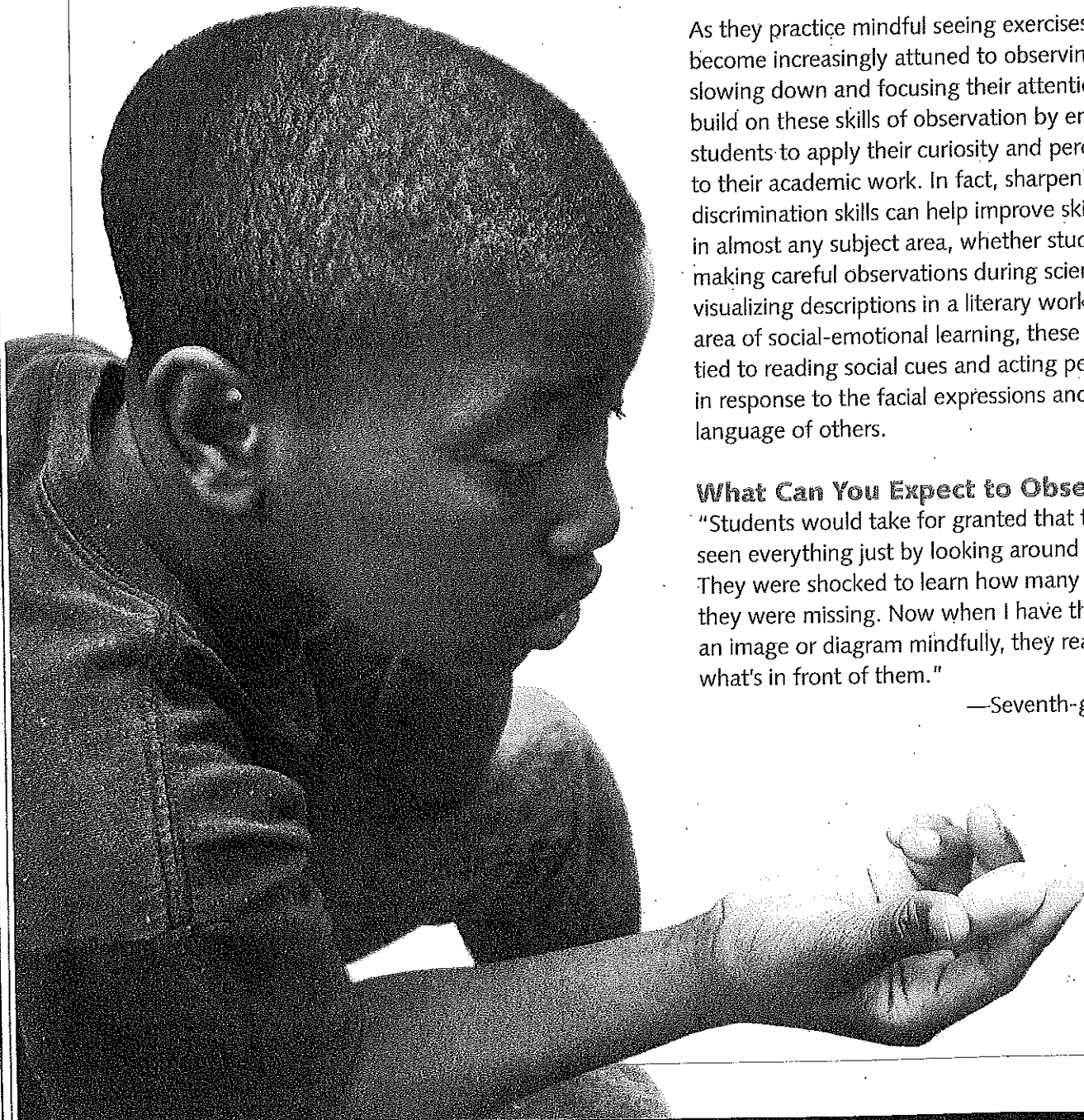
As with mindful listening, mindful seeing helps students sharpen their focus by calling on one sense to very purposefully observe an object. This lesson also takes advantage of students' natural visual curiosity about important people and things in their environment—and their desire to share their observations.

As they practice mindful seeing exercises, students become increasingly attuned to observing details by slowing down and focusing their attention. We can build on these skills of observation by encouraging students to apply their curiosity and perceptiveness to their academic work. In fact, sharpening visual discrimination skills can help improve skills critical in almost any subject area, whether students are making careful observations during science labs or visualizing descriptions in a literary work. And in the area of social-emotional learning, these skills can be tied to reading social cues and acting perceptively in response to the facial expressions and body language of others.

What Can You Expect to Observe?

"Students would take for granted that they had seen everything just by looking around casually. They were shocked to learn how many details they were missing. Now when I have them look at an image or diagram mindfully, they really notice what's in front of them."

—Seventh-grade teacher

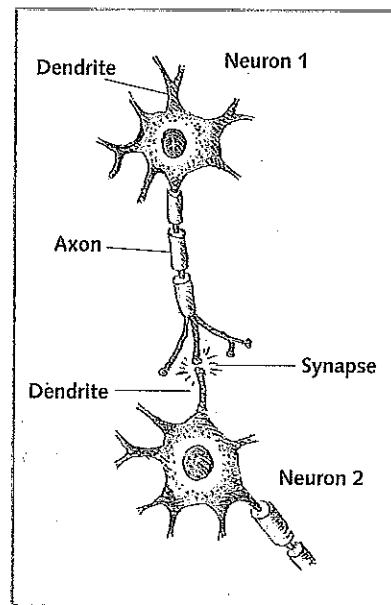


Linking to Brain Research

Emotions Shape Behavior and Learning

The amygdala, that reactive watchdog of the brain, elicits the same fear response for perceived danger as for genuine danger. The behavior of a child who feels unsafe, threatened, inadequate, judged, or vulnerable to ridicule is driven by his or her brain's reaction to threat. Children who feel continually "on alert" are unable to engage in mindful behavior because their amygdala blocks incoming stimuli from reaching the rational prefrontal cortex.

The brain gives priority to emotions because they matter. Emotions are associated with the places and people in children's lives. Children who learn to associate school with a feeling of safety become confident enough to move out of their comfort zone. They feel safe expressing their ideas, working together, asking questions, and trying new things—even if it means making mistakes. You might say they train their amygdala to remain calm, keeping the information pathways to their higher brain open at school. And the more a child feels safe at school, the stronger those neural pathways become. The chains of neurons that result in a feeling of safety become more efficient, passing the message along faster.



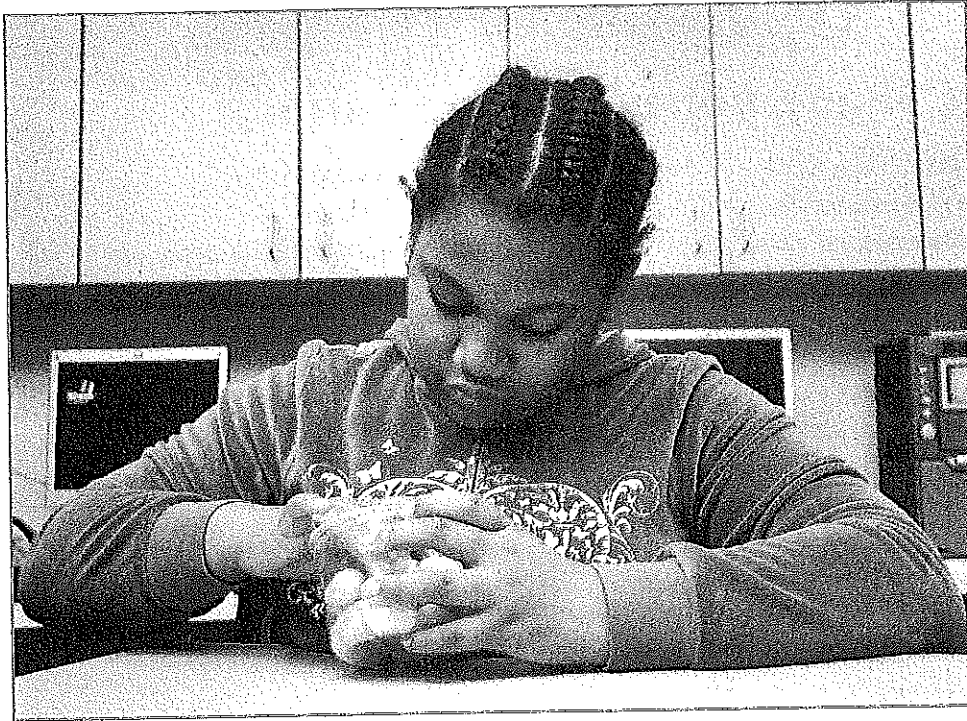
Neurons connect axon to dendrite, passing messages along via gap-jumping electrochemical exchanges called synapses.

Clarify for the Class

Model how chains of neurons pass messages and that neural pathways get faster and stronger with use and repetition. Review the parts of a nerve cell (see page 43) and explain that everyone is going to be a neuron: left hands are dendrites, which receive messages; torsos are the cell bodies; right arms are message-shuttling axons; right hands are the nerve endings and transfer messages to the next neuron's dendrites (left hand). Choose a "message" to pass, such as a coin, eraser or pebble. Using a stopwatch or clock, time the lined-up chain of "neurons" as the first message passes from nerve ending (right hand) to a dendrite (left hand) of the adjacent to a nerve ending (right hand) of the next and so on until the message is received by the final neuron. Then repeat a number of times, recording seconds elapsed.

Discuss: Did the message travel faster with practice? How much faster each time? How is that like what happens in the brain?

Getting Ready



Choose a Specimen
A student selects a specimen to examine.

GOALS

- Students practice focusing their attention on an object and describe the visual details they observe.
- Students strengthen their visual vocabulary and memory through mindful seeing.

MATERIALS

- enough similar objects so that each student has something to examine (coins, glass beads, tree leaves, puzzle pieces, or other objects that are similar but have noticeable distinguishing details)
- (optional) Sensory Web activity sheet (p. 155)

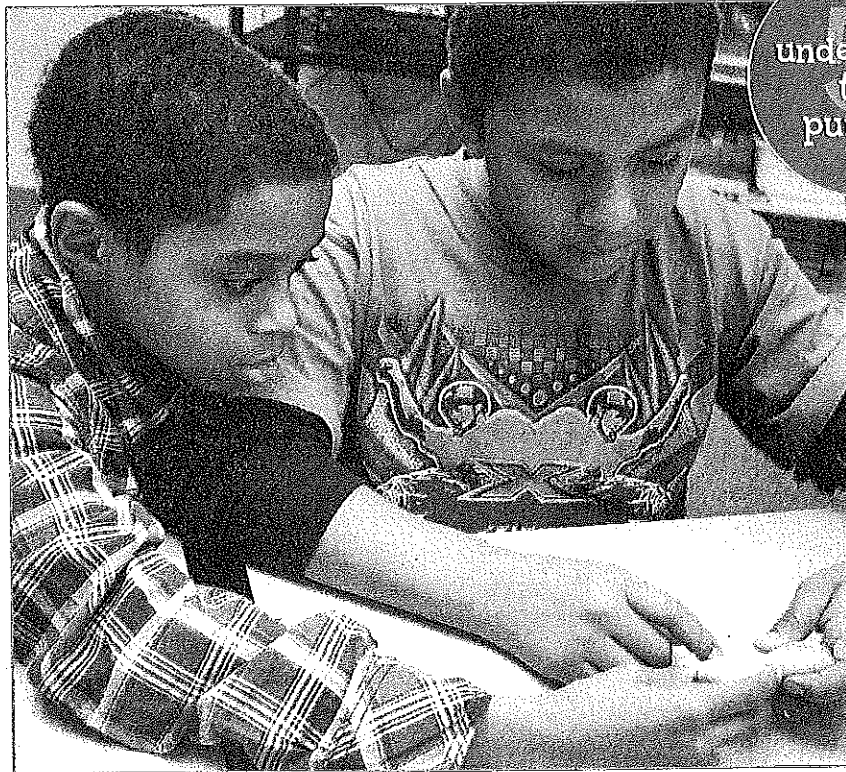


CREATING THE OPTIMISTIC CLASSROOM

Supporting English Language Learners Making ELLs feel welcome and safe to participate among fluent English speakers is critical for helping them prime their brains for learning. Suggest that ELLs brainstorm words for their descriptions in their first language. Make online language dictionaries available and show students how to use them to translate to and from English. Remind them to be on the lookout for cognates, words that are similar in meaning and spelling across the languages. Cognates give their English vocabulary a head start.

mindful seeing

understand
the
purpose



Compare and Contrast
Comparing and contrasting
specimens helps build skills of
analysis and discrimination.

MINDUP Warm-Up

Description Building

Help students expand their vocabulary to describe the things they notice accurately and precisely. Find display images from online sites that use color, line, texture, shape, and other key visual elements very differently (e.g., images by Grandma Moses, Matisse, and Kandinsky).

Ask students how each artist described his or her subject. Guide them to describe colors more precisely (bright or dark, bold or soft, clear or muddy, introduce names for colors that students may not be familiar with: teal, vermilion, mauve, chartreuse, indigo), line quality (long, straight, thick, thin, curvy, angular), shapes (soft- or hard-edged, distinct or blurry, two or three dimensional), and size of objects. Invite students to record new vocabulary words in their journals.

Discuss: Set up a Venn diagram (add rings as necessary) in order to compare and contrast the images. Are there any words that overlap? Which are unique?

Leading the Lesson

Similar, Not the Same

Engage

What to Do

Review terms students have generated from the Warm-Up and connect accurate description to mindful seeing. Introduce the concept of a specimen and set the lesson goal.

- Using mindful seeing skills is important in many subject areas—for visualizing shapes in geometry, or classifying species in biology, for example.
- The objects that scientists study—like fossils for paleontologists and unusual insects for entomologists—are called specimens. Have you ever found a piece of something and tried to figure out what it was?
- Today you're going to examine some specimens so closely that each of you will be able to pick out the one you've studied from a group of specimens that looks almost exactly the same.

Explore

Organize students in groups of five or six. (The more students are in the group, the more challenging the activity is.) Distribute the specimens.

- When you get your specimen, be very quiet and focus all of your attention on it. Let your PFC note every little detail, and let your RAS pass along all the images it can.

Ask students to hold the specimen in the palm of their hand and observe it from all sides. Prompt them to notice qualities like color, shape, and size, and to notice any imperfections or unique details. Make sure they have at least a minute of complete silence with their specimen. Encourage them to take notes on a blank piece of paper or use the Sensory Web page to record the visual features they notice.

For each group, gather the specimens in a box, mix them up, hand the box back to the group and invite students to find their original specimen by comparing and contrasting those in the set. If there is any dispute, have the group repeat the exercise until each student has found his or her specimen.

Why It's Important

Powers of observation are valuable in many curriculum areas and help establish an inquisitive mind-set. Setting students in the role of scientist helps to provide them with a real-world context for mindful seeing. This also builds a foundational skill in science and can be repeated or recalled any time you plan to teach a lesson or plan an experiment that requires visual observation.

Using prompts can guide students to notice important details they may not have noticed otherwise. This is a useful activity to repeat, especially if students don't notice many details the first time—as with other mindful awareness activities, building visual observation skills takes practice.

From the Research

The human brain never stops adapting to its environment in a quest to formulate what the mind perceives based on what the eyes see. (Vanderbilt University, 2010)

Reflect

Have the groups relate any difficulties they had identifying their specimens. Discuss the way they were focused and how that helped them notice those details.

- Which details helped you identify your specimen?
- How much effort did this kind of seeing take, compared to the usual way of looking at things?

Compare mindful seeing to the mindful listening activity.

- How was mindful seeing with your specimens similar to mindful listening to the mystery sounds? Which was easier for you?

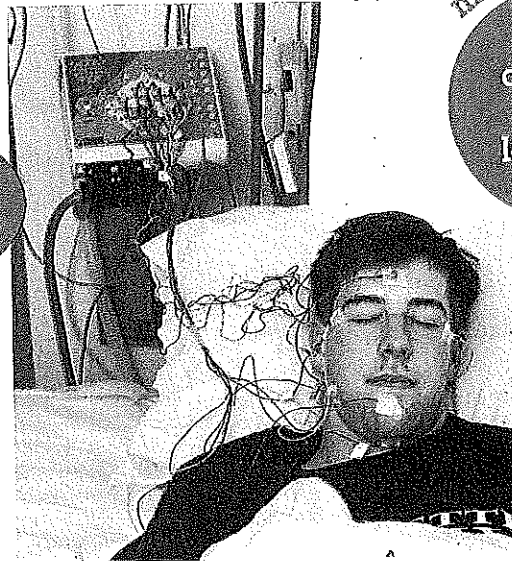
Have students consider how mindful seeing helps them (or could help them) in different situations.

- Think about how mindful seeing might help someone witnessing a crime. How could mindful seeing help someone who wanted to be a sportscaster?

Encourage students to apply some of the visual observation skills and descriptive skills they've worked with in this lesson. Have students consider how they can benefit from mindful seeing in daily life. You may need to help them generate ideas, using examples from your experience (e.g., finding the correct position of a puzzle piece in a jigsaw puzzle or recognizing whether a baseball pitch is a ball or strike).

mindful seeing

connect
to
learning



MINDUP In the Real World

Career Connection

What do waves have to do with sleep? If you're a sleep technologist—everything! By monitoring instruments that measure a sleeping patient's brain, eye movements, muscle activity, and heart rhythm, the technologist charts sleep stages and identifies problems that may affect a person's sleep. Technologists receive input from 12 different channels and 22 wire attachments to the patient. While keeping an eye on the patients, technologists must also continuously monitor an array of electronic equipment. Only an experienced technologist is able to read and interpret the wave patterns on the screen.

Discuss: Consider the visual focus required of a sports referee, astronomer, or graphic designer. Would you find this kind of mindful seeing enjoyable? Why, or why not?

Once a Day

Choose two similar assignments to scrutinize, such as prewriting exercises done several days apart. Use mindful seeing to observe areas of growth. Review with students what you've noticed so they can build on these improvements.