

ZOOM IN

Look Closely at the Small Bit of Image That Is Revealed

- What do you see or notice?
- What is your hypothesis or interpretation of what this might be based on what you are seeing?

Reveal More of the Image

- What new things do you see?
- How does this change your hypothesis or interpretation? Has the new information answered any of your wonders or changed your previous ideas?
- What new things are you wondering about?

Repeat the Reveal and Questioning Until the Whole Image Has Been Revealed

- What lingering questions remain for you about this image?

This routine was originally created by Marc Perella, a middle school teacher in Fairfax, Virginia. It was further adapted by Rhonda Bondie of Primary Source Learning, an organization in northern Virginia devoted to helping teachers use the resources of the Library of Congress. Rhonda was interested in helping students to learn history from primary source documents in an engaging and meaningful way and created many digital versions, under the title “Crop It!” We present our own adaptation of this routine here, which we call Zoom In. Like See-Think-Wonder, this routine focuses on looking closely and making interpretations. The difference is that this routine reveals only portions of an image over time. The idea that our interpretations in history, as well as in other disciplines, are tentative and limited by the information we have at hand is a metaphor about learning embedded in the routine itself.

Purpose

The routine asks learners to observe a portion of an image closely and develop a hypothesis. New visual information is presented, and the learner is asked to again look closely and then reassess his or her initial interpretation in light of the new information.

Because learners must deal with limited information, they know their interpretations must be tentative at best and might change as new information is presented. The process of making such tentative hypotheses enables learners to see that not only is it okay to change your mind about something, but in fact it is important to be open-minded and flexible enough to change your mind when new and sometimes conflicting information is available and the original hypothesis no longer holds true.

By revealing only portions of the image at a time, the routine fosters engagement with the source material in a way that seeing the whole image at once sometimes does not. Learners must act as detectives to build up meaning both individually and collectively.

Selecting Appropriate Content

When selecting content for this routine, keep in mind that only sections of the image will be visible until the end. This means that you might be able to use a familiar image depending on which sections you reveal initially. Whatever you are considering, ask yourself, "Are there separate areas of the image that tell a different story? Are the various parts as potentially interesting as the whole?" The content might be a scene with many people doing different things with the initial focus on just one person or activity. You might select a section of a complex painting, a photograph of a geological site, a data display, graph or chart, or even a poem. To ensure that Zoom In isn't just a game, you'll want to choose content that is meaningful to your subject area and that will pull students in to your topic of study.

Once you have chosen an image, consider what information will be conveyed by each part of the image you choose to reveal at each stage. Bear in mind that each new part revealed should add significantly to the meaning of the section of the image originally displayed and challenge students to think in new ways. Consider when you might reveal something that is surprising or that will force new interpretations. You can then create a Zoom In using presentation software to make slides of each section or by enlarging the image and creating masks that you can peel off for your reveals.

Steps

1. *Set up.* Display a section of the selected image and invite learners to look attentively at it, allowing time for careful observation. You might want to begin with observations before moving to invite learners to develop hypotheses or interpretations based on what they have seen. They can do this individually, in small groups, or as a whole class.
2. *Reveal.* Uncover more of the image and again ask learners to identify anything new they are seeing and consider how this new information affects their previous

interpretations and hypotheses. Depending on the stimulus, you may ask more pointed questions: “What do you think the relationship is between these two people? What feelings are you getting from the words revealed so far? Do you have a prediction of what the next section of data will look like?” At this stage, you may want to ask students about their wonderings as well.

3. *Repeat.* Continue the process of revealing and interpreting until the entire image has been revealed and invite learners to state any lingering questions they have. Encourage the learners to discuss their different interpretations and reflect how their thinking has changed with each piece of additional information.

4. *Share the thinking.* Discuss the process with learners. Ask them to reflect on how their interpretations shifted and changed over time. How did seeing more of the image influence their thinking? What parts were particularly rich in information and had a dramatic effect? Which were more ambiguous? What would the effect have been if the reveals had happened in a different order?

Uses and Variations

As a reading teacher, Anthony (Tony) Cavell was interested in students immersing themselves in text. When his grade 6 students at Bialik College began their study of *Mao's Last Dancer* by Li Cunxin, Tony decided that zooming in on an illustration by Anne Spudvilas of Li's arrival at the train station in Beijing could help his students gain a greater understanding of the context and setting of the novel. Tony restricted the first image to the child standing alone with no background visible. As the students examined the image, Anthony asked his students to take the perspective of the child in the image and posed additional questions. He asked, “What can you feel? What can you see, smell and hear? What can you notice?” The students individually recorded their responses. With each new reveal Tony repeated the questions, asking students to integrate the new information into their developing sense of the setting.

Paul Velleman wanted his grade 4 class at Bialik to learn more about the multitude of languages spoken by indigenous Australians and decided to do this by building up a sense of wonder through looking at maps of Australia in succession, each time adding an overlay onto the map that added more information. Paul did not exactly Zoom In on the map itself but built up layers of new information by superimposing more and more cartographic information, thus building a sense of anticipation, curiosity, and wonderings as the initial map developed from one with only the outer perimeters evident to a map with more and more divisions that eventually showed where every indigenous

language had its origins. Each time the students tried to deduce what the map depicted as each new piece of information challenged their prior thinking. By not revealing all the information in the first place but encouraging students to develop hypotheses along the way, Paul built excitement and mystery. Reflecting on the experience, the class remarked on how readily assumptions can be made based on limited information and how those assumptions can change.

Assessment

Look for how students pay attention to detail when formulating their hypotheses and how they support their assumptions by referring to what they have seen and noticed. Are students synthesizing the new information as it is provided to develop new or modified hypotheses, or are they unwilling to move from their initial theories? Do students build on the ideas of others, or do they limit their thinking to only their own ideas? Are they able to reflect on how and why their thinking has changed throughout the process?

Tips

While there is no set number of “reveals” to use throughout a Zoom In, walk yourself through your proposed sequence of reveals to question what you are seeing and how much and what type of information is revealed each time. Will it challenge students’ thinking? As developing flexible thinking is an important goal for this routine, encourage students to make connections to other situations when their thinking has changed as they have found out more about a situation or something they have learned previously. In the Picture of Practice following, the teacher used an interactive whiteboard to present the image and produce the reveals.

A Picture of Practice

Caitlin Faiman had been using a few thinking routines with the students she sees as a mathematics resource teacher at Bialik College. Previously, some of these students had been introduced to Zoom In as part of Tony Cavell’s English and social science classes, and Caitlin was intrigued by it. At the same time, she questioned its use in mathematics.

One of Caitlin’s goals for her grade 5 mathematics class was to see the big picture of mathematics and realize that mathematics is all around them. She decided