Poster Project: Observation and Inference
a 45- or 90- minute classroom activity
Grades K-12
By Courtney Ferrari, Valley Catholic Middle School

Lesson Overview: Students explore an aerial photograph using close observation skills and making inferences. Connecting these skills to the scientific method, students make a claim about what is happening in the photograph, then support that claim with evidence and reasoning. The teacher gradually provides information to help students refine their reasoning.

Poster:

- Emmet Gowin, *Ash from Mount St. Helens at the Confluence of the Cowlitz and Columbia Rivers, Washington*

Materials:

- Portland Art Museum poster or other artwork showing natural phenomena; 2 copies if possible
- Ruler/yardstick for superimposing a grid on the artwork
- Scissors to cut artwork into pieces

Before the Lesson:

1. Print copies of the poster from the PDF available online; cut the image into squares OR cut one example of the poster into squares for pairs to examine.
2. Reserve a second example of the poster (or a digital version) so the class can see the complete image.

Lesson Steps:

1. Divide students into small groups and give one square to each group.
2. Close observation: Ask students to describe their square in as much detail as possible:
    a. What shapes and textures do you see?
    b. What does it look like to you?
    c. Are there any features that help you understand what it might be?
    d. Which way is 'up'?
3. Inference: Ask students to infer what their piece is. Note that an inference is an educated guess. Their inferences should be based on the observations they made.
    a. I think this is a _____ because I see _____.
4. Next, ask students to try to put the squares together to form the whole work.
5. Display the complete poster or project a digital version. Ask students to look closely at the whole. How does their understanding change? Does the image start to make sense?
    a. Identify any features that orient you.
    b. Does this photograph have a right-side-up? Why or why not?

6. Prompt: What do you think is happening in this photograph?
7. Write your claim, reason and evidence in the structure modelled below. Example:
    a. Claim: This photograph shows a beach next to the ocean.
    b. Evidence: In the photograph, there is sand and moving water.
    c. Reason: The ocean stirs sand with constant wave action and so moves sand and soil around. From a distance, this motion would create patterns as seen in the image.
8. Teacher offers one of the following details at a time, asking students to refine their claims with each new hint:
    a. Mount St. Helens
    b. Ash
    c. Water
9. Provide instruction on the geological processes evident here, such as braided stream systems, erosion and deposition and the effects of sediment on stream flow. Repeat the observation process after instruction: Now, what do you see?

Extension Activities:

- Compare this image with other stream systems. How are they different?
- Compare Gowin's photograph with Google map satellite images of the same region. How are they similar or different? Consider the purposes of each image? What makes one art and not the other? Or are they both art? Provide reasons for your response.
- Compare Gowin's photograph with other works in the Poster Project, such as George Johanson's *Under the Volcano*, Wendy Red Star's *Indian Summer*, and Charles Heaney's *Mountains*. How does each artist situate the viewer in relation to mountains? How does each artist think differently about what it means to represent the landscape?