

Kramer, Stephen P., and Felicia Bond. *How to Think like a Scientist: Answering Questions by the Scientific Method*. New York: T.Y. Crowell, 1987. Print.

Leslie, Clare Walker., and Charles Edmund Roth. *Keeping a Nature Journal: Discover a Whole New Way of Seeing the World around You*. North Adams, MA: Storey Pub., 2003. Print.

Magner, Laura. *The Scientific Method in Fairy Tale Forest*. Marion, IL: Pieces of Learning, 2007. Print.

Materials: Paper
Drawing materials
Clipboards
Handheld magnifying glasses

Procedure:

Introduction:

1. Ask students if they ever go for walks and notice all of the little things that happen around them. What about the bugs, the wind or weather, the sounds they hear? For the next project they will need to really pay attention closely and use their observational skills to see how much goes on that we normally don't even notice. This could also be a time to go through books from the resource section with your class to introduce them to inquiry and hypothesizing.

Demonstration:

1. Provide examples of event maps (*Tip: Search "Hannah Hinchman event map" in Google Images). Show different ways that they can be drawn and that they must draw and note at least 4 events.

Work Period:

1. The first session will be for the field trip to the Garth & Jerri Frehner Museum and Braithwaite Fine Arts Gallery (if your class is able to go). At the Braithwaite, there are a few pieces inspired by nature and science. Look specifically at these and talk about them with your class.
2. The second session will include the introduction and demonstration. After this, the class can go for a walk and create their event maps. Provide them with handheld magnifying lenses so they can better see everything. If possible, allow a decent amount of time for this as they are waiting for events, then drawing and writing about them. During the walk, do your best to help students think about why the events occur and create hypotheses.
3. If necessary, students can continue illustrating and writing about their events for a third session. It may be helpful to have photo references of insects and birds.

Closure:

1. Have each student show their map and talk about their favorite event. What was it and why do you think it happened? Be prepared to help students answer the "why's". Questioning, researching, and hypothesizing are all part of the scientific

- method. Older students may be able to research the answers to their questions ahead of this discussion and talk about what they found out.
2. Students will fill out their checklist and turn it in.

Vocabulary: Event Mapping, Scientific Illustration, Observation, Magnifying Glass, Scientific Method, Inquiry, Hypothesis

Community Involvement: Field trip to Garth & Jerri Frehner Museum of Natural History and “ABC: Assemblage, Book Arts, & Collage” show at Braithwaite Gallery on SUU campus, Guest speaker by biology professor, SUU biology student, visual journal/event mapping artist (ex: Hannah Hinchman). If possible, have a biology helper with you during the nature walk to answer questions as they happen.

Integrations with Other Subjects in Utah Core: Life and Environmental Science, Art, and Literacy (Reading, Writing, Speaking, Listening)

Incorporation of Technology: Examples of event maps and visual nature journals from the internet can be shown. Photo references can be printed out for those who need help finishing their illustrations.

Accommodations for Students with Special Needs:

1. For special needs students, extra assistance and modified materials will be given. If students finish early they can help those who need more time. For students with hearing difficulties I will speak clearly and loudly and will provide written instructions. Visually impaired students can sit closer to the demonstration or screen if needed.
2. For ESL students, provide classroom signage or a worksheet with the terms and ideas in their native language.
3. For gifted and talented students, extensions or the ability to work at home may be given so they can spend more time elaborating their drawings or notes. They can also add additional events, or try to use simple poetry like haikus as their notes.

Extensions:

1. Can these be displayed somewhere?
2. Use photographs instead of drawings, create event map collage
3. Walk through a different environment and see what changes

This lesson can be tweaked to better suit the curriculum and standards for your grade level by focusing on certain events like weather changes, soil erosion, biology, etc.

Reflective Questions:

1. Did I forget any materials, resources, or steps that would have helped the students create a more successful piece?
2. How can I improve this lesson?
3. Note to Self: Photograph student work.
4. What did students like or dislike during this project?

National Visual Arts Standards Met:

- Kindergarten: VA:Cr2.3.Ka Create art that represents natural and constructed environments.
 - Achieved through mapping events during a walk through nature.
- 1st Grade: VA:Re7.2.1a Compare images that represent the same subject.
 - Achieved through comparing event maps with other students' during critique.
- 2nd Grade: VA:Cr1.2.2a Make art or design with various materials and tools to explore personal interests, questions, and curiosity.
 - Achieved through students drawing the events that they found most interesting.
- 3rd Grade: VA:Cr2.3.3a Individually or collaboratively construct representations, diagrams, or maps of places that are part of everyday life.
 - Achieved through students creating maps of their nature walk.
- 4th Grade: VA:Re8.1.4a Interpret art by referring to contextual information, and analyzing relevant subject matter, characteristics of form, and use of media.
 - Achieved through critiquing each other's work; reading notes and viewing illustrations on the event maps.
- 5th Grade: VA:Cr2.3.5a Identify, describe, and visually document places and/or objects of personal significance.
 - Achieved through students documenting the events and places that they found most interesting.

Utah Core Science Standards Met:

- Kindergarten, 1st Grade & 2nd Grade: Standard 1 Objective 1: Generating Evidence: Using the processes of scientific investigation
 - Achieved through students questioning and hypothesizing their events.
- 3rd Grade: Standard 2 Objective 2: Describe the interactions between living and nonliving things in a small environment.
 - Achieved through the visual and written descriptions of plant/animal events on their event map.
- 4th Grade: Standard 5 Objective 4: Observe and record the behavior of Utah animals.
 - Achieved through the visual and written descriptions of animal and insect events on their event map.
- 5th Grade: Standard 5 Objective 2: Describe how some characteristics could give a species a survival advantage in a particular environment.
 - Achieved through investigating animals and plants from their event maps, including their biology and structures. Many animals and plants are "formed" to allow them to better survive.

Event Map Checklist

Student Name: _____

Date: _____

Please put a checkmark next to each task you completed.

I created an event map with drawings and writing. _____

I have at least 4 events on my map. _____

I wrote about each event. _____

I presented my event map and participated in the discussion. _____

Overall, I think I earned the following grade on this project: _____

What did you like/dislike about this project?

Signature of Student: _____

Signature of Teacher: _____

Teacher's Comments: