Why Nature Journaling?

RESEARCH QUESTION:
How does nature journaling affect engagement in middle

school science students?

Nature journaling is a creative practice that combines scientific observation with artistic expression. Students engage with their environment by recording observations through sketches, descriptive writing, and reflective questioning. This approach encourages close attention to detail, curiosity, and an appreciation of the natural world.

Background

About Kingswood Regional Middle School

- •Located in Wolfeboro, NH, surrounded by forests, lakes, and fields.
- •Serves 7th and 8th graders, with ~350-400 students.
- •Team-based learning fosters collaboration and community.
- •Serves students from multiple rural towns, with 33% classified as economically disadvantaged.

About My Class

- •Focused on *Team Quest*, a seventh-grade team with 74 students.
- •Students divided into five science sections, averaging 15 per class.
- •Inclusive approach integrates students with IEPs and 504 Plans.

DATA COLLECTION TOOLS:

- 1. Baseline Data Collection: Pre-Survey and Pre- Open-ended Questions
- 2. Ongoing Data Collection: Nature Journal Content Analysis and Observation Checklist
- 3. Post Intervention Survey: Post-Survey and Post Open-ended Questions



Scan me for more details on tools

Baseline Data
Collection: PreSurvey

Weekly Nature
Journaling

Ongoing Data Collection

Post Intervention Survey

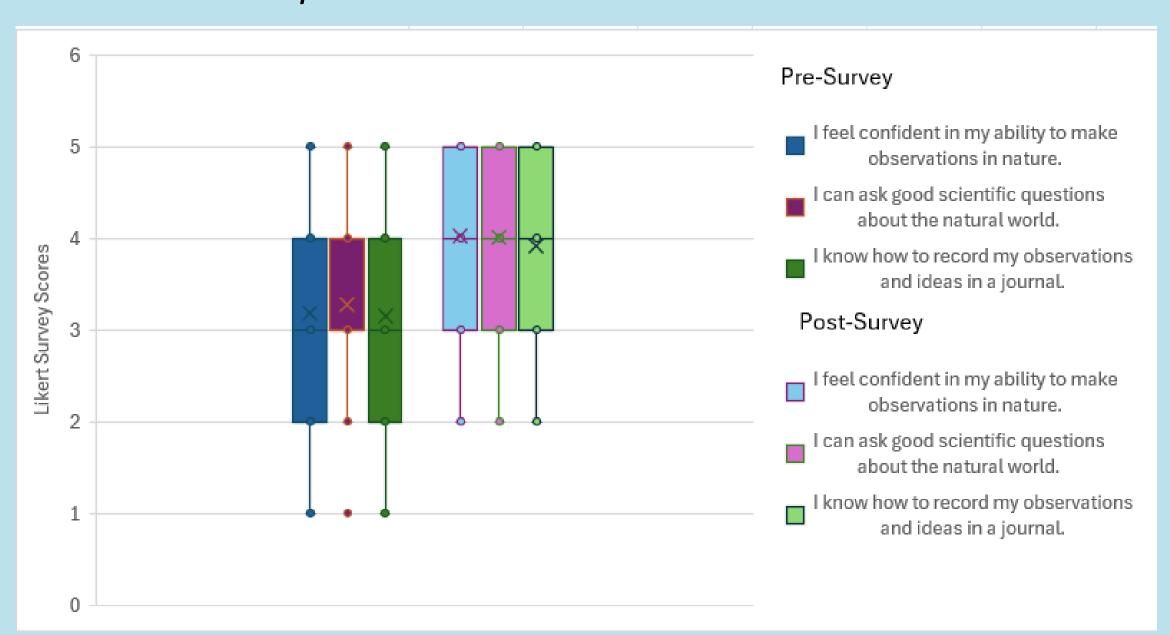
Six Week Treatment

Key Findings

Increased Confidence in Science

Nature journaling helped students believe in their abilities as scientific thinkers.

- •"Yes, because I can pick what I am interested in and take time to draw and think."
- •"It's easier to explain when I've drawn it too."



MONTANA

STATE UNIVERSITY

Master of Science in

Figure 1. Pre- and Post-Survey Comparison of Student Confidence in Science (N=74)

The Effects of Using

Nature Journaling with

Middle School Science

Students

Stephanie Kerr

Kingswood Regional Middle School,

Wolfeboro, NH 2025

Key Findings

Figure 2. Pre- and Post-Survey Comparison of Student Engagement in Science (N=74)

Enhanced Engagement in Science

"I felt like I was doing real science."

"This is my favorite part of the day."

Students began to see science as fun, relevant, and real.

"Can I stay out here longer? I didn't finish my questions."

"Nature journaling made me realize how science is all around us."

Pre Survey

Post Survey

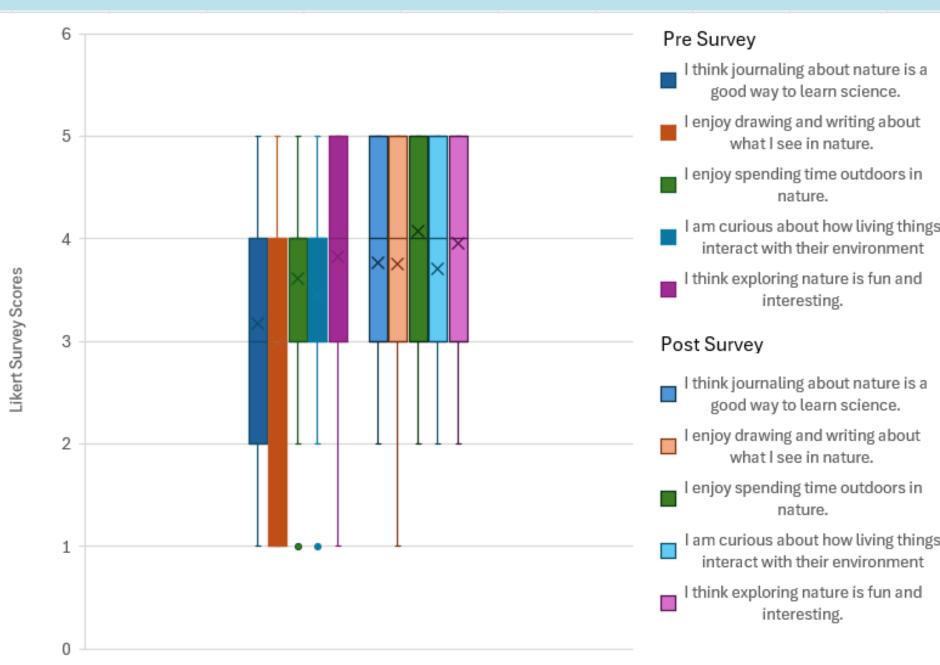
think science is relevant to my

I feel excited about learning new

iink science is relevant to my

Strengthened Connection to Nature Students described deeper emotional and sensory engagement with the natural world.

- •"It helps me slow down and really see what's around me."
- •"When I stop and really look, it's like there's a whole tiny world out here."
- •"I feel like I notice how animals act around others more."



animals act around others

Figure 3. Pre- and Post-Survey Comparison of Student Perception of Nature and Nature Journaling
(N=74)

Conclusion

Integrating nature journaling into middle school science significantly enhanced student engagement, curiosity, and scientific thinking. Students became more confident in their ability to observe, ask questions, and communicate ideas using both words and visuals. Through regular outdoor and indoor journaling experiences, they developed stronger connections to the natural world and demonstrated deeper

understanding of scientific concepts.

Nature journaling proved to be an accessible, effective, and engaging practice that supports both academic growth and personal discovery.



Growth in Observation and Inquiry Students became more attentive, curious, and thoughtful observers.

- •"I'm actively trying to draw now."
- •"I had no idea how much detail there was to draw."
- •"I focus on little details more now."



Figure 4: Pre- and Post-Survey Comparison of Student Perception of Observation Skills (N=74)

Improved Scientific Communication

Students learned to express scientific thinking through both words and images.

- •"It's easier to explain when I've drawn it too."
- •"I write more now because I notice more."
- "When I draw it, I can explain it better."
- "Drawing shows things I wouldn't think to write about."