

# Math Journaling

Math journals are helpful tools allowing students to record mathematical ideas and improve communication skills. They serve as a repository for task based lessons and key math knowledge learned. Japanese classroom have been using this structure with success:

**When studying mathematics, use what you have learned before to solve new problems.**  
Keep a good record of your learning in your notes so that you can always look back.

**In your notebook, record:**

- Date
- (Problem)
- (My Idea)
- (Friends' Ideas)
- (Summary)
- (Reflection) etc.

Write down friends' ideas that you thought were good or that may be useful in the future.

**As (Reflection) record:**

- What you've come to understand
- What you noticed
- What you want to examine next
- What you thought as you listened to your friends' ideas etc.

**Think about ways to improve your notes**

I don't erase an incorrect answer. Instead I write the correct answer and where I made the mistakes.

$$4 \times 6 - 2 \times 3 = 18$$

mistake  $\rightarrow$  18

When we use an idea that we learned before, I write down the date of that lesson from My Math Note.

I used the formula we learned about on November 18th to find the area of a rectangle.

$$2 \times 3 + 2 \times 6 = 18$$

I write down things I thought about or points to be careful about in a balloon.

Check where the vertical and horizontal sides of a rectangle are before writing a math sentence.

**See what your friends wrote in their Reflection.**

(Reflection) Everyone used 2 rectangles to find the area. Using what we studied today, I want to try lots of different problems.

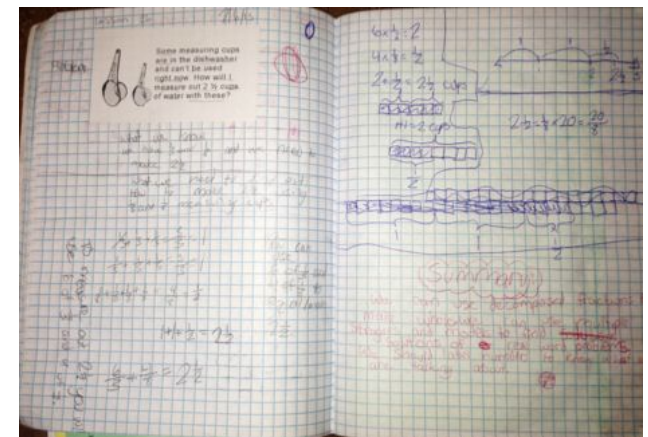
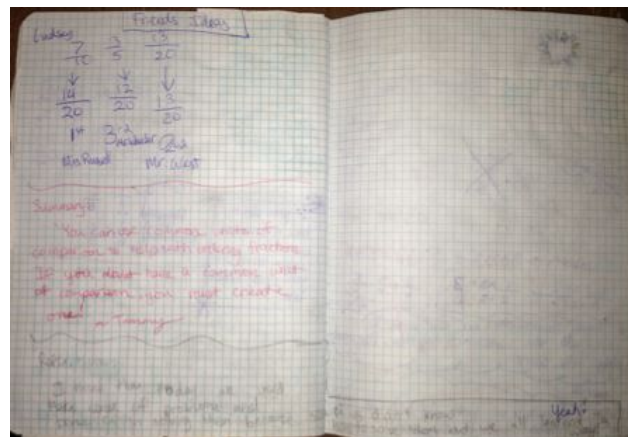
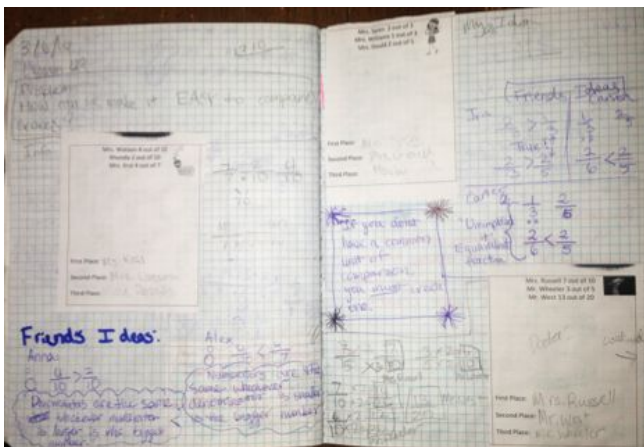
(Reflection) I was impressed because Takumi thought about subtracting a small rectangle from a large one. I want to be able to think like that too.

A Table of Contents keeps track of the lesson titles and dates. Each task should include:

- ★ Date
- ★ Task (often pre-printed on label or paper to glue)
- ★ What is Known
- ★ What Needs to be Found
- ★ Plan
- ★ Worked out Strategy
- ★ Other Shared Strategies
- ★ Summary (key math knowledge)
- ★ Reflection (new understanding, questions, wonderings, connections, what's still confusing, etc.)

Graph composition notebooks provide students with an additional tool while recording information. Color also plays an important role. In these examples students' own ideas are in pencil, classmates' are in blue, and the final summary is in red. **Sample 4th & 5th grade journal**

pages:



# Sample Math Journal Template

Lesson #

Date:

Task:

Classmate's Idea:

Classmate's Idea:

What I know:                      What I have to find out:

Plan or Strategy:

My Idea:

Thought bubbles can show thinking, key vocab or ideas shared during whole group discussions

Summary:

Reflection: