

Getting Started with Math Journals

Students' first experiences with Math Journals should invite a wide range of responses, rather than single right-wrong answers.

Sharing a good math-related children's book or exploring puzzles—such as the Magic Triangle or geometric puzzles (tangrams, pentominoes, and others)—are two good ways to begin working with Math Journals. It is important that students know that they have to DO something to have something to write about!

Talking is a rehearsal for writing. During whole group activities, make notes on chart paper or the chalkboard, and invite students to begin their written responses with one of those ideas.

When they comment orally during a work session, say something like, "That's an important observation. Write that down in your journal," or "Can you make a picture or diagram to show that idea in your journal?"

Show how their observations apply to the various prompts.

When students are in the beginning stages of working with Math Journals, it helps them to be able to write if they are presented with prompts to write towards, instead of having to develop an idea on their own.

Experience shows that open-ended prompts are best for revealing students' thinking and help to inspire further investigations.

As students record their investigations in their Math Journals, it is vital to provide a time for them to share their journals. Other students offer appreciations for these entries, and it sometimes opens their eyes to a different way of thinking.

Students need to recognize for themselves the value of journals

- as a record for further reference
- a tool to "think through" ideas on paper
- a resource for developing a collective pool of strategies with the class

Math Journals can also be used during writing workshop, so that children develop and publish math-related expository pieces.

While it is important to allow time for students to share their Math Journals, it is also important that the teacher responds to the Math Journals. These comments can be written in the students' journals. Ideally, collect journals about once a week. However, comments can also be written during the work sessions.

The intent of the comments is to extend their thinking and to encourage them to revisit their ideas (to look for a connection or to check for accuracy) Sample comments:

- "Your comment makes me wonder if...,"
- "I can really see your thinking here,"
- "Can you add a diagram to show how your strategy works?"
- "I'm confused. Please reread your work and explain some more."

If the entries are too brief or are inaccurate, ask students to respond to your written comments.

Math Journals can also inform classroom instruction. If you notice misconceptions or misunderstandings while reading the journals, revisit the material in another lesson, or pull a small group of children can be pulled aside for extra help.

Journals are not final assessments, so they are not graded simply for accuracy. Use a ranking system, such as plus, check, minus.

- A plus can be assigned if there is clarity of explanations, new insights, and connections.
- A minus is given for inadequate effort.
- A check can be given if the response has some inaccuracies, but all of the other qualities for a plus are met.

The journal entries collectively become a portion of the mathematics grade for the term, in a similar way that writers' notebooks are used in language arts.