

MATH JOURNALS

To maximize the use of math journals, determine the specific purpose of the journaling. The purpose may change according to math content, language proficiency, strategy development, grade level, etc. Therefore you may vary the way you use your math journal throughout the year. It is recommended to stay on the same kind of journal type until the process is solidified; then you may begin to add to the students' math journal repertoire with other journal types. Any previously used journal types can be spiraled at different times, again, based on purposes.

To introduce a new journal type, ample modeling will need to be done before students are expected to accomplish the process on their own. After whole group modeling, the next phase may be for students to work in partners and lastly as independent journal work. This will help minimize the difference between students' lack of content knowledge and students' lack of process knowledge. Students should ALWAYS have considerable think time to process the journal question and then should ALWAYS be allowed to share with a partner before students are chosen to share to the whole group. If it is evident as students share out to the whole group that the concept or process is not understood, recognize the need for reteaching the concept. You may put your planned lesson on hold and dive into the misunderstandings with the journal question, or acknowledge "we don't know this" and set it aside for a more effective instructional time.

The first four journal types may be used to review/recycle math concepts previously taught. Designated grade levels are given, but modification of the process and content could make most options available to any grade level.

- **Mystery Question Journal:** A word question is read aloud to students and can be posted for them to refer back to. Students illustrate the problem and write a number sentence or equation to match the illustration. (If students are not yet at number sentences, they just write the numbers used in the problem, next to their illustration.) gr. K-6
- **Strategy Journal:** A math question is read to students and can be posted for them to refer back to. The questions should vary, not always word questions. The journal focus is on the STRATEGY used to find the answer. Students illustrate their strategy and can also complete the sentence prompt "To _____ I _____." For older or more proficient students, the prompt may not be necessary for them to explain in words their strategy. In the beginning, you may want to stay away from students giving the answer to the question for the purpose of supporting process not product. The comparison of strategies for the same math question is essential here. Students can learn from each other different ways to do the same thing. gr. 1-6
- **Math Dictation Journal:** Students dictate a number sentence or equation read to them then compare it with a partner. You may include the answer in the dictation or ask students to compute it. gr. 1-6
- **Real-Life Math Journal:** Before, during and/or after a new math concept is being taught, students log in their journals where/when they "see" math in their real-life. They can do this in pictures, numbers or words. gr. K-6

- **Math Vocabulary Journal:** Students keep track of their math vocabulary and symbols in personal ways. The journal can be organized alphabetically or conceptually. In the journal, students should make connections between terms they know, new terms and different ways of thinking about the terms including illustrations and examples. This may include, but are not limited to, students inventing their own concept webs, synonyms, antonyms, pictures, real-life connections, etc. gr. 3-6
- **Note-Taking Journal:** Create math journals that are a template for note taking. Depending on the flow of your lesson, the format will vary. The template should include a space for students and you to build background, recognize vocabulary, keep record of the content learned and reflecting on the learning. This kind of journaling is a scaffold for students to learn how to take notes independently. These journal pages are used during a math lesson as a resource. gr. 3-6
- **Graphic Organizers Journal:** Similar to Note-Taking Journals, this type of journaling is even more focused on the use of graphic organizers such as word sorts, mind mapping, Venn Diagrams, T-Charts, etc. Whenever possible, use graphic organizers in math that they will see in language arts. gr. K-6
- **Wrap-Up Journal:** Similar to Note-Taking Journals but used at the end of the unit for students to record the essentials of each content piece. This should include vocabulary, examples, real-life application examples, strategies used and reflection of learning. gr. 2-6
- **Building Background Journal:** Before each unit and/or lesson begins, give students a higher order thinking question to help them access their background knowledge or make predictions about the content to be covered. gr. 2-6
- **Reflection Journal:** At the end of each lesson, give students a higher order thinking question to deepen and personalize their understanding of the lesson. gr. 2-6