

How often have we been given the admonishment that “mathematics is not a spectator sport?” Now with *Math Dance* we can truly be participants on the mathematical arts playing field!

When one participates in a performance or visual arts event, it is usually as a passive observer. For example, although we attend concerts and view museum exhibitions, most of us are seldom given the opportunity to participate actively in the creative or re-creative arts process. Moreover, it is very rare to encounter mathematics or mathematical concepts in an artistic venue.

In *Math Dance with Dr. Schaffer and Mr. Stern*, however, we are not only given the opportunity to take an active role in the artistic process, but also to be actively involved in an aesthetic aspect of mathematics through physical movement.

For over 10 years I have been using the work and drafts of Schaffer-Stern-Kim’s activities in mathematics classes of all ages, K-adult, and they have always been welcomed with much enthusiasm and success. I have seen that through my students’ physical involvement and mathematical awareness of motion, they have been given a powerful motivational tool in seeing not only how mathematics is connected to the arts but also how innovative artistic creation can be informed by mathematical concepts. Moreover, students have not only re-created these

activities, but many have also created new art which has been influenced by the ideas of symmetry and isometry. This present work represents 3 lifetimes of creativity and dedication to the interaction of professional performing and visual arts with mathematics. I am grateful that these activities have been finally collected in this anticipated tome.



I would like to emphasize that this book does not give teachers just another "bag of tricks" for entertaining a class. Rather, consider it a "chest of tools" which will enable students to experience symmetry, shape, pattern,

combinatorics, aesthetics and story telling as unifying concepts in both mathematics and dance. Furthermore, these are not just a collection of fun activities, but they were ultimately designed to help teachers in their mission to instill a much deeper level of understanding of mathematics and aesthetics in students of all ages.

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