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*Conveying group theoretic concepts to middle schoolers at the UCI Math Circle.* Preliminary report.

One of the most rewarding aspects of designing the Math Circle curriculum is the ability to transform some of the most sophisticated mathematical concepts into something both engaging and comprehensible to middle school students. This is not an easy task. Can a student with no geometry or algebra 2 background develop an intuition for the classification of the 7 Frieze groups and understand the differences among the 17 wallpaper groups?

In this talk, we describe some of the efforts undertaken by the UCI Math Circle Team to convey an appreciation for abstract Group Theory concepts to middle school students, through clever explorations, well-crafted visuals, engaging worksheets and fun manipulatives. (Received September 17, 2014)