

1135-Q5-2305 **Jameson C Hardy*** (jameson.hardy@dixie.edu), 1301 West Indian Hills Dr, 29, St George, UT 84770. *Teaching Group Theory Through Twisty Puzzles*. Preliminary report.

The Molecube is a twisty puzzle, similar to the Rubik's Cube, that contains nine different colors. The goal is to arrange the cube so that each color appears on each face only one. In this talk, we will explore how the Molecube and other twisty puzzles can be used to give a hands-on introduction to group theory. We will explore several introductory group theoretic ideas that I have successfully introduced to children as young as 12 years old, including the parity of permutations and the use of commutators to develop algorithms. (Received September 25, 2017)