

1056-R5-1812      **Nathan Carter\*** ([ncarter@bentley.edu](mailto:ncarter@bentley.edu)), 175 Forest St., Waltham, MA 02452. *Visualization Lessons from Visual Group Theory*.

I will introduce the value of visualization in group theory using specific examples from the book *Visual Group Theory* and the complementary free software package *Group Explorer*. (*Visual Group Theory* introduces the subject from a thoroughly visual perspective, making concepts of symmetry clear using Cayley diagrams.) These projects will then be viewed as case study from which we can learn lessons about (1) specific learning benefits of mathematical visualization in general and (2) the importance of technology in the creation of mathematical visualizations. (Received September 22, 2009)