Research indicates that students should engage with multiple representations and strategies to develop their multiplicative reasoning skills. In the present study, we designed a problem sequence for a group of students going into fifth grade to develop their abilities to select strategies that are appropriate and efficient for solving problems requiring multiplicative reasoning. During initial individual interviews students were assessed on their abilities to reason multiplicatively.  Over the next seven weeks, we collected data about our students’ mathematical reasoning, qualitatively analyzed their responses, created lesson plans based upon their needs, gathered feedback about the lessons from peers and faculty, and finally taught the revised lessons to our students. To conclude their experience, the students engaged in individualized post-interviews. Lessons 1 and 2 focused on word problem comprehension skills as students engaged in creating their own word problems. As the literature encourages the use of collective nouns to contextualize multiplication, lessons 3 and 4 focused on equal-sized groups within word problems that involved animal groups. During lessons 5 and 6 students worked on their own strategies for solving a contextualized multi-step word problem, while also beginning to work with larger numbers. Lesson 7 required students to draw upon of all of the skills they had developed throughout the seven weeks. Our students demonstrated a strong affinity for standard algorithms, but they still struggled to completely understand multiplicative word problems. We suggest that teachers regularly engage students in multiplicative reasoning with contextualized word problems to provide robust opportunities to develop conceptual understanding.