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Project Mathigami aims to give children, college students and educators positive experiences in mathematics to ignite their curiosity and stimulate them to create and explore meaningful mathematical questions. We focus on supporting students and educators as they develop the Standards for Mathematical Practices recommended by the Common Core and embrace the iterative process of exploration of mathematical concepts through failure, reflection and revision. Supported by a grant from the Wong Foundation, we invited a group of K-12 classroom teachers to work on mathematical explorations based on origami models alongside college students throughout the year. Each teaching team consists of one teacher and one to two college students from a wide range of fields including mathematics, computer science, engineering, art, biology, and education. Teaching teams attend Mathigami workshops together and plan, develop lessons, and then co-teach the K-12 students. In this presentation we will share some examples of lessons focused on fractions and proportional reasoning, through explorations based on the Platonic solids. We will also share our process and the preliminary results of our work. (Received October 05, 2015)