Jennifer Wilson* (wilsonj@newschool.edu) and Vidhya Kamdar. More Mathematics of Pop-up Books.

The construction and analysis of pop-up books presents a wonderful opportunity to apply concepts from geometry and linear algebra to problems that arise naturally as the "pop-ups" are unfolded. In this talk, a follow-up to a talk on Pop-ups at last year’s Joint Meetings, we look at several new simple paper constructions which lead to questions about area and volume, negative space, and rigidity. These can be answered using a combination of mathematical analysis and geometric construction, and provide a fertile opportunity for student exploration. (Received September 17, 2013)