Reflexive polytopes are important in mathematical string theory because they can be used to generate and study Calabi-Yau varieties arising as complete intersections in toric varieties defined by the reflexive polytopes. Kreuzer and Skarke classified all reflexive polytopes for $n \leq 4$ but $n = 5$ remains open. One way to study five-dimensional reflexive polytopes is to study slices, which are reflexive polytopes obtained by intersecting the polytope with a hyperplane. Of interest to us are the "tops" that slices generate, which encode information about the polytope, and the fibrations that slices induce. We study the tops and induced fibration structures on the corresponding toric varieties and families of Calabi-Yau hypersurfaces. (Received July 28, 2010)