The McKay correspondence is a bijection between the finite subgroups $G$ of $SU_2$ and the simply-laced affine Dynkin diagrams. Such a subgroup must be one of the following: (a) a cyclic group $C_n$, (b) a binary dihedral group $D_n$, or (c) one of the 3 exceptional groups: the binary tetrahedral group $T$, binary octahedral group $O$, or binary icosahedral group $I$. McKay’s observation was that the quivers determined by tensoring the simple modules of $G = C_n, D_n, T, O, I$ with the $G$-module $V = \mathbb{C}^2$ exactly correspond to the Dynkin diagrams $\hat{A}_{n-1}, \hat{D}_{n+2}, \hat{E}_6, \hat{E}_7, \hat{E}_8$, respectively. We examine the McKay correspondence from the point of view of Schur-Weyl duality. Since the McKay quiver provides a way to encode the rule for tensoring by the $G$-module $V$, we consider the tensor product module $V^\otimes k$ and the centralizer algebra $\text{End}_G(V^\otimes k)$. A focus of the talk will be on results for the binary polyhedral groups $T, O, I$. This is joint work with J. Barnes and T. Halverson. (Received January 27, 2019)