In this thesis, we study symmetric relations and affine symmetric subspaces of $\mathbb{Z}_p^{\binom{[n]}{k}}$. The thesis is divided into three parts. In the first part, we provide the basic definitions and facts that are needed in the rest of the thesis. In the second part, we study symmetric affine subspaces of $\mathbb{Z}_p^{\binom{[n]}{k}}$. We will provide a full characterization of symmetric vector subspaces when $k = 2$. Using that result, we will give a characterization of when every symmetric affine subspace contains a constant for $k = 2$. In the third part, we study the symmetric relations of an algebra. We will prove that under some assumptions an algebra has a k-WNU term operation.