The shard intersection order is a new lattice structure on a finite Coxeter group $W$ which encodes the geometry of the reflection arrangement and the lattice theory of the weak order. It also contains the noncrossing partition lattice as a sublattice. In the case where $W$ is the symmetric group, we characterize shard intersections as certain pre-orders which we call permutation pre-orders. We use this combinatorial characterization to determine properties of the shard intersection order. In particular, we give an EL-labeling. (Received June 27, 2011)