Let $G$ be a graph and $w$ be a word on the vertex set of $G$. We consider all non-crossing matchings on $w$ where each arc in the matching is an edge in $G$. Additionally, we define an operation to transform one matching to another, called a move. The move graph of a word is the directed graph of all non-crossing matchings with edges given by the moves. In this talk we work to classify graphs based on their possible move graphs. We give a sufficient condition when two graphs are equivalent and detail several open problems in the area. (Received September 25, 2018)