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We give combinatorial proofs of  $q$ -Stirling identities using restricted growth words. This includes a poset theoretic proof of Carlitz's identity, a new proof of the  $q$ -Frobenius identity of Garsia and Remmel and of Ehrenborg's Hankel  $q$ -Stirling determinantal identity. We also develop a two parameter generalization to unify identities of Mercier and include a symmetric function version. (Received February 06, 2017)