Negative campaigning is an important aspect of campaign competition that has been the focus of a great deal of journalistic attention but little or no formal modeling. Within the context of plurality elections for a single office we model the incentives that affect the use of negative campaigning in three situations: two-candidate competition, three-candidate competition with two main candidates and a third "spoiler" candidate, and three-candidate competition each of whom has some realistic potential to be elected. Under simplifying but still quite general assumptions we show a number of results, including the following key conclusions. Ceteris paribus, (1) for two-candidate competition, in many circumstances there will be a mix of positive and negative campaigning, but the front runner will engage in more positive and less negative campaigning than his opponent, and negative campaigning will increase the greater the opponent's support; (2) for two-candidate contest to intensify the negative campaigning of the two front runners; (3) in any three-candidate contest, including that where the third-place candidate is also potentially a winner, no candidate engages in negative campaigning against the weaker of his two opponents.