We will share a series of hands-on tasks designed to engage students in the statistical reasoning underlying the quantification of evidence. We will explain how students can create and justify different scenarios where data provides strong, moderate, or weak evidence against a certain claim. The justifications will move students towards the derivation of the Goodness-Of-Fit test statistic. In addition we will share our implementation experience with introductory statistics students. (Received September 16, 2014)