Team-Based Learning (TBL) is often a recommended strategy in larger classrooms with teams consisting of 5-7 members per team. If the conditions are right, many of the ideas of this style of active student engagement can be applied to courses of smaller sizes as well. We will describe the preparatory work we completed in creating the background material for a TBL mathematical statistics/probability course. This work included developing short videos introducing probability concepts, creating an interactive applet using the shiny package in RStudio aimed at aiding students in visualizing probability distributions, and designing a bare bones textbook and solution manual in LaTeX. The students in the course worked in two small teams to solve the exercises provided in the textbook, added their own examples and explanations of concepts to better tie ideas together, and proved theorems. The overarching goal was for each team to create a textbook that encompassed their work and also described their progress in learning the course material. (Received September 15, 2014)