Current guidelines advocate for introductory statistics courses that emphasize real data, active learning, and use of appropriate technology (GAISE Guidelines, 2005). The NSF-funded Adapting and Implementing Innovative Materials in Statistics Courses (AIMS) project has developed lesson plans aligned with GAISE that use activities to help develop students’ statistical reasoning. The lessons, based on implications from current educational research, involve students in small group activities that are rich in discussion and computer explorations. The presentation will provide an overview of the instructional design principles used to develop the AIMS lesson plans followed by examples of some of the most successful activities. (Received September 19, 2007)