This qualitative research study was conducted to investigate the beliefs, knowledge, and skills of science teachers as they accommodated and modified curriculum for students with disabilities. Four high school science teachers participated in interviews, classroom observations, and artifact collection to provide information about how their beliefs, knowledge, and skills influenced the accommodations and modifications to curriculum they used for students with disabilities. Previous studies have focused on accommodations and modifications made at the elementary and middle school level leaving a gap at the high school level. Other studies have presented claims about science teacher beliefs about students with disabilities. This study was designed to link science teacher beliefs to their actions in accommodating and modifying curriculum at the high school level. Data that emerged from the interviews, classroom observations, and artifacts led to three major claims, (1) science teachers held beliefs that moved them to go beyond the accommodations listed in the IEP and create strategies and accommodations that they believed would be more helpful for students with disabilities, (2) science teachers with high teacher efficacy have several traits that support students with disabilities through accommodations and modifications of curriculum as they learn science, (3) teacher-student relationships are critical in understanding how to accommodate for students with disabilities in science classrooms.