Recruitment and retention of underrepresented minority students in STEM disciplines remains a challenge. Many studies have attributed this lack of diversity in STEM to learning environments that are not inclusive. To address this issue, we developed, facilitated, and evaluated a diversity training workshop for STEM undergraduate and graduate teaching assistants (TAs). The goals of the training workshop were for TAs to develop their own understanding of diversity, to be able to recognize the characteristics of an inclusive learning environment, and to identify the resources needed to create and foster such an environment in the laboratories and recitations where they teach. The fact that the workshop focused on inclusivity and not simply diversity was important to mitigate potential resistance to diversity and diversity training. Activities included reflective questions and discussions, case studies, and team-building exercises in addition to informational presentations by workshop leaders. During this mini-workshop, we provided an overview of the training workshop, engaged participants in some of the activities, and highlighted the specific resources used to develop the workshop. Participation in the workshop prepared attendees to be able to implement all or parts of the workshop at their home institutions.