In a traditional class, students go to a classroom to hear a lecture, then go home to do assignments. But this means that if they run into difficulties on an assignment, they can’t get help until the next class, which impedes their learning. In a flipped class, students hear lectures elsewhere, usually through online videos, then go to class to work assignments. We will discuss how to use open resources like YouTube videos and innovative in-class assignments to promote student understanding of the concepts of linear algebra, and to set students on the path towards creating advanced mathematics. (Received August 31, 2018)