ABSTRACT: The article describes an attempt to improve student learning outcomes in a computer networks course by making lectures more active learning experiences. Quick quizzes, group and individual exercises, the review of student questions, as well as multiple breaks, were incorporated into the weekly three-hour lectures. Student responses to the modified lectures was overwhelmingly positive: over 85% of respondents agreed that the lectures aided understanding, with large majorities of the respondents finding the individual activities useful to their learning. Although student examination performance improved over the previous year, performance on an examination question that was designed to examine deep understanding remained unchanged.