Teamwork might be considered as one of the most desired attributes of engineering graduates. From an assessment perspective, it might be one of the most difficult attributes to assess. Evaluation of teamwork refers to the assessment of individuals on their ability to work in a team. However, in many cases the performance of the team is taken as the only measure of teamwork. A plethora of literature has been dedicated to the understanding of the attribute; nevertheless, many laboratory instructional team faces the dilemma on whether the designed assessment meet its requirements. In this article, the concept of teamwork will be explored in the context of engineering laboratories. Following an exploratory understanding of the attribute, mechanism to assess teamwork will be proposed. The attribute will be decomposed into component skills and each skill element will be explored to determine assessment requirement by answering to a series of what, when and how questions. The outcome if the work will be valuable for redesigning engineering laboratories which is the long-term objective of the work.