There has been a rapid increase in the diffusion and usage of Tablet PCs known as new generation of computers. However, people obtain most of the information about these technologies from commercial web sites or advertisements due to the limited number of related academic studies. Therefore, this study reviews the related literature germane to Tablet PCs and their educational usages and presents detailed information. It initially analyzes the historical development of Tablet PCs, hardware and software characteristics, and functions. Next, it discusses the instructional uses of them in the educational settings in light of prior research studies in the literature. In this way, it is hoped that educational potentials of these technologies and their implementations can be introduced to teachers and students. The information and research presented in the study were gathered through reviewing scientific publications from academic web sites, electronic databases and indexes, and journals. The findings of this research review were categorized in three main themes as instructional use of Tablet PCs, attitudes and opinions about Tablet PCs, and the usage of Tablet PCs and health. Implications and suggestions were discussed within the context of technology integration in education.