Teacher leadership was examined in the context of gifted education in Thailand for a development of an effective framework. An explanatory mixed method design was employed involving both quantitative and qualitative data collection from content analysis; and survey, interview and document from teachers. Results revealed that there were three major areas and nine attributes leading to effective teacher leadership. School leaders, teacher leaders and principles of learning are major considerations for teacher leadership to succeed in gifted education. Findings revealed that the gifted high school under study demonstrated good overall teacher leadership. Two significant areas strongly permeating were teacher collaboration, and teachers’ relationship and positive influence on one another. Two areas that were perceived less strongly present at the school were distributed leadership and professional learning community. The findings suggest that the framework can serve as a guideline for both gifted and general education in Thailand. Since the school is the country’s number one high school for the gifted; the prevailing teacher leadership practices currently found can to some extent be a legitimate framework to emulate.