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Human skeletal remains are important teaching tools in natural science courses. Many teaching skeletons are considered antiques purchased from India prior to 1985. The skeletons purchased prior to 1985 have a high likelihood of being acquired legally through grave robbing. Due to this dilemma we have conducted standard osteological analysis of these teaching skeletons to learn more about these people. Skeletons tell us a substantial amount of information about an individual and how they lived. Various conditions such as nutritional deficiency and young age can alter the skeletal material affecting our ability to accurately analyze skeletal remains which we encountered with these remains. DNA technology can give us definite information we struggle to determine using skeletal remains. Skeletal remains last longer than other bodily tissue allowing us to extract fragmented DNA molecules. For this project DNA was extracted from the pulp of mandibular and maxillary molars of 7 individuals. We tested three samples per tooth to limit contamination and increase the likelihood of a full profile. DNA samples were analyzed using a SeqStudios Genetic Analyzer. Sex of individuals were compared to the skeletal analyses, kinship was determined, and allele frequencies were compared.