Aim: The purpose of our study was to determine the accuracy of Tanner-Whitehouse 3 (TW3-RUS) bone age (BA) assessments for forensic age estimations of Turkish children. Materials and methods: Plain radiographs of left hands and wrists of 324 children were evaluated. Mean chronological age (CA) was compared with mean bone age (BA) according to the TW3 atlas for each sex, and differences by age group were determined. Pearson correlation coefficients and cubic regression were used to determine the differences and model the relationships between mean BA and CA. Statistical analyses were carried out using R-project. Results: The difference between the mean CA and the mean BA was statistically significant, and there was a high correlation between them for both sexes. No P values were statistically significant for any age group for girls but P values were statistically significant at 13 and 14 years for boys. The dispersion formula was determined for each sex. Conclusion: We propose that this atlas can be used for Turkish children, until a new atlas that has been distributed and formed according to the results of multiple studies made throughout the country. Key words: Forensic age estimation, bone age, skeletal maturation, Turkish children, Tanner–Whitehouse 3 method