The purpose of the study is to compare the physical anthropometric and motoric characteristics of handball and tennis performance athletes aged 12-14 years. The speed measurements of the groups included in the study were taken with photocell device, resilience measurements were performed by using sit-out test, hand paw force hand dynamometer, anaerobic power vertical jump jump meter, anthropometric measurements using environmental measurements of tape measure and skinfold caliper devices in subcutaneous fat measurements. SPSS 17 package program was used for the analysis of the data and an independent sample t-test was used to determine the differences between the physical and motoric characteristics of the groups. Age, height, body weight and athlete’s age parameters of handball and tennis participating in the study were found to be significantly different only among athlete’s ages. Flexibility of the groups, 10m 30m speed values and suprailiak parameters for subcutaneous fat measurements were found to be p<0.05, favorable for tennis players; push up, shuttle, vertical jump and right foot jump forces p<0.05, and in the values of hip, thigh and calf as circumference measurement, significant differences were found in the handball players compared to tennis players. As a result; tennis and handball athletes’ flexibility and speed performances were evaluated while tennis players are better, strength values and anthropometric characteristics of the handball players were observed to be better. It is thought that these differences are due to different physical characteristics and training programs required by the sports branch.