Diploma thesis deals with usage of GeoGebra programme in education process in Mathematics. It is particularly focused on theme of construction of triangle. The aim of thesis is proposing of lecture involving construction of triangle with usage of GeoGebra. This experiment consequently validate the possibility of usage of dynamic geometry software as an influential factor in coping of a new theme in curriculum. Theoretical part of thesis includes description of terminology of planimetry that is linked to topic of thesis. Another two chapters deals with introduction of programmes such as GeoGebra and GeoTest, and they also introduce some of researches that are focused on usage dynamic geometry in Math lessons. Following chapter deals with introduction of tasks that are used in experiment. Chapter also describes preparation of particular lessons dealing with the topic. The last part of thesis is focused on process of experiment, comparison of results of pupils' work that are tested in comparison to control class. All acquired dates are processed on the basement of observation and testing. Results of survey and analyses confirm that GeoGebra is applicable tool used in lectures aimed to construction of triangle.