The purpose of this research was to find out the difference of students’ learning outcomes using inquiry training model and direct instruction model in light topic at class VIII SMP N 1 Tebing Tinggi. The research method was quasi experimental. The population was all students at class VIII semester II consist of 9 classes SMP N 1 Tebing Tinggi. The sample of this research conduct two classes and consist of 50 students, class VIII-1 as experiment class and class VIII-2 as control class and define by cluster random sampling. The result that was obtained: post-test average value of the experiment class was 78.6 and 67.7 was the average value for control class. Standard deviation for experiment class was 14.0 and 14.3 was the standard deviation for control class. The result that was students’ activity in experiment class has the average value is 75.9. And the result that was students’ affective in experiment class has the average value is 76.8. Normality of the test result from the both samples was normal and homogeneous, the testing criterion was accepted H0 if -2.012< t' < 2.012 and refuse H0 in other condition. Here, H0 was refused because t’ is 2.75 and H_a was accepted. So it can be concluded that there was the significant difference of students’ learning outcomes using inquiry training model and direct instruction model.