This study was conducted in the Agona West Municipality, covering a total of nine-nine (99) junior high schools. The objective was to determine the relationship between the proportions of syllabus covered by teachers to their students' performance in the basic education certificate examination (BECE) mathematics. Stratified random sampling technique was employed for the selection of forty (40) out of the 99 schools (representing 40.4% of total schools in the municipal). A survey design was adopted for the study and data was collected using questionnaires and interview guides from fifty (50) teachers in the forty schools sampled for the study. The findings show that only 62% of the mathematics curriculum materials (MCM) were implemented even though teachers admitted in interviews that they conduct extra-classes for the students. This implies about 38% of the content in the MCM are not taught by the majority of the teachers and therefore the omission or skipping of certain topics was common practice in the municipality. A one way ANOVA used to test the null hypothesis that 'there is no significant difference between the school performance categories (high, average and low) with respect to their teachers' coverage of mathematics curriculum' showed the results $F = 22.80$ and $p=0.00$ ($p<0.005$), indicating a significant influence of the teachers' coverage of the content in the MCM on the schools' performance. The implication is that the teachers in the high performing schools cover a great deal of the content of the official curriculum (high mean content coverage = 89.31%). It is recommended that the Ghana Education Service support mathematics teachers in low performing schools to engage in in-service education and training to deal with how to teach difficult topics identified in this study. Also, opportunities should be created for mathematics teachers in high performing junior high schools to share their successes in the implementation of the mathematics curriculum.