The purpose of the study was to analyse pupils Arithmetic Computational errors and to investigate the relationship between these errors and science achievement in Standard 7 classes in South Nyanza District, Kenya.

The research subjects for the study were 188 Standard 7 pupils from ten primary schools in Rangwe Division of South Nyanza. The pupils were randomly selected from each of the sampled schools.

The instruments administered to the pupils were Arithmetic Computation Test comprising 80 problems and Science Achievement Test made up of 20 multiple choice questions. Both of the tests each had a maximum duration of 60 minutes.

For purposes of analysing and interpreting data from the study, every wrong response in the Arithmetic Test was scrutinized and the error entered into one of the eight categories. Frequencies of error categories were then computed and tabulated. Science Achievement was measured by scores obtained for each school and Pearson's Product moment correlation was determined to establish the correlation between the magnitude of each category of errors and the scores in the Science Achievement Test for each school.

It was observed from the study that:

(i) Pupils in Primary 7 do make various types of arithmetic computation errors all of which vary in magnitude.

(ii) Science achievement among Standard 7 pupils varies from school to school.

(iii) There is positive correlation between Arithmetic Computational errors and Science Achievement among standard 7 pupils.

(iv) The impact Arithmetic Computation errors have on the science performance varies from one error category to the other.