# Design Frequency vs. Overclocked CPU

Gittens, Amarion (School: Good Hope Country Day School)

The goal of this science fair project is to know if overclocking does improve performance. This project has proven this point by benchmarking the Ryzen 5 3400G CPU at its design frequency and then overclocking the CPU to 4.3Ghz. There was an increase in performance but it is different in every application that is tested. While this project does prove that overclocking can improve performance, this can depend on some factors. This includes how the application is coded, the CPU of choice that is being overclocked, the motherboard that is being used, and what cooler(s) is being used.

**Awards Won:**