



## CWSF 2019 - Fredericton, New Brunswick



## **Aaliyah Alfieri**

Slidin' Sequences

Challenge: Innovation
Category: Junior
Region: Niagara
City: Grimsby, ON

School: Power Glen E.S.

**Abstract:** This experiment utilizes the Fibonacci Sequence, the Golden Ratio and the

Lucas Sequence as a strategy for planting trees to mitigate the flow of mudslides. Both sequences were successful depending on the desired outcome. This method of mitigation is an environmentally friendly

alternative to current retaining wall practices.

## **Biography**

Aaliyah Alfieri is in grade 8 at Power Glen School in St. Catharines, Ontario. Aaliyah enjoys the challenges in Mathematics and how it is applied in everyday living. She believes that everything academically and personally should have a metacognitive approach. She has been competing at the Regional level Science Fair for the past 3 years and has received many notable awards. Besides STEM, Aaliyah is part of a competitive volleyball team which represents the Niagara Region at the Provincial and National level. In her spare time, she pursues her creative side through her passion for photography. After witnessing the aftermath of a mudslide while on vacation in Santa Barbara, California, Aaliyah became inquisitive about mitigation methods. Having previously studied the Fibonacci Sequence, she thought maybe there would be a way to incorporate the mathematical sequence into a mitigation plan using trees and the golden ratio. A message from Aaliyah: There are many hardships involved in conducting a well constructed project. Sometimes you have to re-consider what you are trying to communicate. My biggest piece of advice I could give to new scientists is to stick with something until the very end, regardless of the obstacles you may have to face.





