

## CWSF 2019 - Fredericton, New Brunswick



### Safia Zaman

#### Candies to Dye for

**Challenge:** Health

**Category:** Junior

**Region:** York

**City:** Markham, ON

**School:** Town Centre Montessori School

**Abstract:** Food colouring dyes are typically made of artificial manmade ingredients, and are nitrous derivatives that are petroleum based. This experiment was conducted to test the effects of food colouring in lollipops on mealworms to investigate how it will affect their lifespan and behaviour. Food colouring can induce allergic reactions, asthma, cancerous tumours, hypersensitivity reactions, hypotension, and more.

#### Biography

The inspiration for my project came together when I worked with my science teacher, Mrs. Mathew, who helped me find a project that had a significant global application. I completed this project because I wanted to investigate a subject applicable to more than one audience. The purpose of this experiment was to investigate and test the effects of candy dyes found in lollipops bought at different price ranges on mealworms. This project is meant to bring to light what we blindly consume without a second thought. Food safety and regulations need to be implemented with greater care. In the future, I would like to further investigate the effects of the toxicity of candy dyes found in candies that claim they are "natural", for when researching online, in the food industry there seems to be a lot of false advertising. Working on this project was a great experience; I learned about hard work, determination, and commitment. Time management was also a large component of this project, and to anyone who would like to complete a STEM project like my own, they must be able to manage their time, and most importantly, put passion and care into all their work.

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