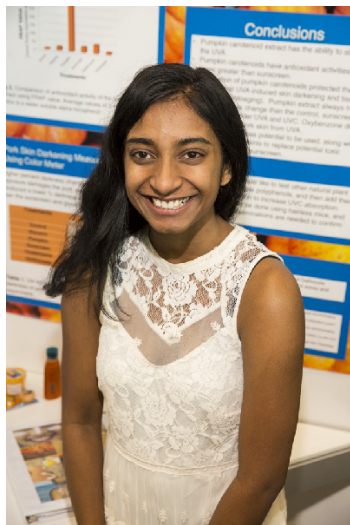


# CWSF 2015 - Fredericton, New Brunswick



## Viraji Rupasinghe

### The Secret to Pumpkin

**Challenge:** Health

**Category:** Intermediate

**Region:** Chignecto West

**City:** Bible Hill, NS

**School:** Bible Hill Junior High School

**Abstract:** Discarding pumpkins after Halloween is a massive waste of resources and energy. Can pumpkin carotenoids be used as a natural ingredient to replace toxic chemicals used in sunscreen? Through UV absorbance spectroscopy, antioxidant FRAP assay, and microscopy of pork skin damage tests, it was concluded that pumpkin carotenoids have a significant potential in protection against UV-induced skin damage.

### Biography

My project, The Secret to Pumpkin was simply inspired by my love for Halloween. Ever since I was little I basically dreamed about craving pumpkins. It wasn't until this year that I realized I was a part of Canada's massive product waste; of pumpkins. That got me started thinking of ways to use pumpkins that are beneficial to human health. So I decided to make a natural pumpkin sunscreen. My advice for any student who are considering doing a science project, is to build upon your own interests by creating problems and questions surrounding it. Concepts and solutions will come together after. My project touches base on product waste in Canada, skin cancer, sunscreen chemicals, antioxidants, beta-carotene, Ozone depletion causing UVC, I didn't have any knowledge about these things before starting my project, but it all came together because of my simple love for pumpkins. I can't stop here, I want to go further and do more experiments and trails to prove pumpkin is better than sunscreen, I want to increase the protection factor of pumpkins and add apples to my solutions. When you're passionate about something, you can't just let it rest and not extend and improve.

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