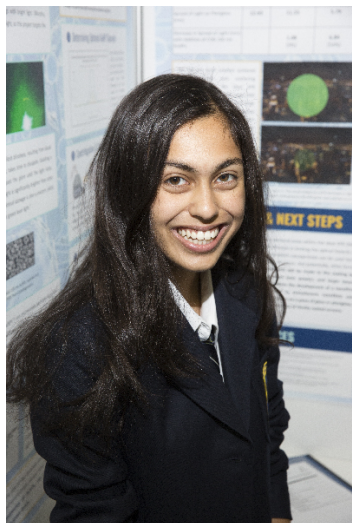


## CWSF 2019 - Fredericton, New Brunswick



### Shreya Gandhi

#### Smarticle Particles: Laser-absorbing gold nanoparticle solution for airplanes

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Vancouver Island

**City:** Victoria, BC

**School:** Glenlyon Norfolk School

**Abstract:** Even 5mW laser pointers are strong enough to reach and interfere with the operation of an aircraft when shone at the sky, blocking a pilot's view of their surroundings with bright light. 100 nm gold nanoparticles with large optical cross-sectional areas range were used for their SPR properties in a transparent coating to absorb and scatter the light of a 532 nm wavelength green laser.

#### Biography

Hi! My name is Shreya Gandhi, and I am in Grade 10 at Glenlyon Norfolk School. Aside from science fair, I love to dance, debate, take photos, engage in Model UN, and play the piano. I also enjoy volunteering with an organization called Science Venture, which aims to inspire Vancouver Island youth to explore the sciences through innovative STEM experiences. Science is one of my favourite subjects in school, and I was inspired by my sister last year to pursue a project. I've had so much fun throughout this experience and would definitely recommend participating to any students considering it.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000