

## CWSF 2011 - Toronto, Ontario



### Joan Lopez

#### Anthocyanin and the Autumn Phenomenon

**Challenge:** Environment

**Category:** Senior

**Region:** Niagara

**City:** St. Catharines, ON

**School:** Sir Winston Churchill

**Abstract:** Two species of plants, *Arabidopsis thaliana* and tomato, were used in three different temperatures to prove if temperature impacts the autumn colours in leaves. The plant pigment anthocyanin was chosen for observation. It is proposed that once plants get a cue from low temperatures, they start building colouring pigments, which perhaps helps them to enter the fall and thus into dormancy.

#### Biography

Joan Lopez is a senior student attending high school in St. Catharines. She will pursue an undergraduate degree in the Sciences, as she is particularly interested in Chemistry and in Biology. Throughout Joan's high school career, she has volunteered for numerous organizations like the Arthritis Society, Pumpkinville, the Rankin Cancer Run and the DSBN Road Race. She has also been actively involved at school as Captain of the Recycling Team, a Prefect and a member of the Wrestling Team. Outside of school, Joan is a brown belt in Jiu-Jitsu and she has also maintained a part-time job at a local library. Joan also had the opportunity to do the Science Mentorship Program with the University of Guelph in her last year of high school. This experience has provided her with valuable knowledge and insight as to how scientific research is conducted in laboratories. Joan has submitted a project to the Canada Wide Science Fair based on the research and time spent with the mentorship.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$300
The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
<b>Total</b>	<b>\$2 300</b>