SASTA OLIPHANT SCIENCE AWARDS

SOUTH AUSTRALIAN SCIENCE TEACHERS ASSOCIATION

Highly Commended

Models & Inventions

Year 5-6

Shamika Gorey

Grange Primary School

Government of South Australia
Department for Education

SASTA South Australian Science Teachers Association

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2020 Sir Oliphant Science competion

Category: Models and Inventions.

Title: Science behind Vaccines '(The Cellular Warfare)'

Name: Shamika Gorey (year 6)

Grange primary school

Risk assessment form: Completed

Model information:

My model represents the human immune system and how it reacts to vaccines. It shows different types of immune cells and how they respond to the vaccine. The model depicts various types of immune cells like macrophages, dendritic cells, B cells, T cells, T helper cells, memory cells, antibodies, and antigens along with destroyed body cells.

The materials I used were:

two cardboard boxes,

brown packaging paper coloured with red acrylic paint to make it resemble the inside of body,

Styrofoam balls of various sizes used to represent different body cells,

Pipe cleaners to represent anti bodies and blood vessels,

Pom-pom balls to represent pathogens, antigens and lymph node,

Bamboo skewers to hold structures,

Floral sponges to securely hold bamboo skewer structures at the base of the box and

Acrylic paints for painting structures.

I received supervision from my parents for:

using electric soldering gun to create cell surface and texture on Styrofoam balls.

operating hot glue gun and paper cutters.

References:

"Vaccination Investigation: The history and science of vaccines" by Tara Haelle, images from page 14-15.