

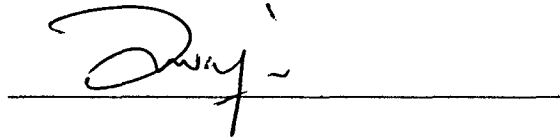
WHY THE SKY IS BLUE?

ROSILAWATI BT THMAN

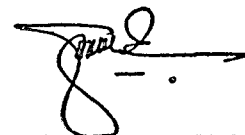
“Final Year Project Report Submitted in Partial Fulfillment of the Requirements for the Degree of Bachelor of Education (Hons) Science (Physics) in the Faculty of Education, Universiti Teknologi MARA”

NOVEMBER 2006

This Final year project entitle “Why **The Sky is Blue ?**” submitted by Rosilawati Binti Thman, in partial fulfillment of requirements for the Degree of Bachelor of Education(Hons) Science (Physic), in the Faculty of Education, and was approved by



Puan Zawajer Abd Ghani
Supervisor
Faculty of Applied Sciences
University Teknology MARA



Dr.Muhd Zu Azhan Yahya
Head of Programme
B.Sc.(Hons) Physics
University Teknology MARA

Assoc.Prof. Dr.Mohd Kamal b Harun
Dean
Faculty of Applied Sciences
University Teknology MARA

Date: 29 JAN 2007

ACKNOWLEDGEMENT

In the name of Allah The Most Gracious and Most Merciful for the excellence in His creation and for His Mercy, which exist, has given the courage and strength to complete this on time. Above all, I'd like to thank God for bestowing me some mercy to finish this project though there were lots of hues and cries which I had to confront.

First of all I would like to express my gratitude to my supervisor Puan Zawajer Binti Abd. Ghani for her kindness to be my project supervisor. I am really appreciated for her continuous guidance on contributing ideas, expertise, and advice towards the completion of this project report. Only God is able to repay all her kindness.

My token of appreciation also goes to my dearest husband for his understanding and his moral support. Though there were a lot of tragedies, he is still there to support and help. Beside him, I am very grateful for my dear children who have very understood their mother's responsibility as a student and couldn't spend much time together, especially in completing this particular project.

Last but not least, my gratitude and thanks to my friend Rosniza binti Mohd Tri and Nurul Hidayah Binti Murtadza Which indirectly involved in this project and for their valuable help.

TABLE OF CONTENT

	Page
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii
ABSTRACT	xii
ABSTRAK	xiii
CHAPTER	
1 INTRODUCTION	
1.1 Introduction	1
1.2 Background of the study	2
1.3 Problems statements	6
1.4 Objectives of the study	7

ABSTRACT

WHY THE SKY IS BLUE?

Sunlight is made up of seven colors such as red, orange, yellow, green, blue, indigo and violet. When all those colors are mixed up we get the color white. Light is a form of electromagnetic radiation. It also travels very quickly which is around 300,000 kilometers a second. Light can travel through space, air, water and solids like glass or Perspex. When the sunlight shines through the atmosphere most of the light passes straight through down to the ground. When light beams interact with particles suspended in air, the energy can be scattered or absorbed. Energy that is scattered causes a change in direction of the light path. The amount of light that is being scattered is a function of the size of the particle relative to the wavelength of the light falling on the particle. Particles that are tiny compared to the wavelength of the light scatter selectively according to wavelength. While all colors are scattered by air molecules, violet and blue are scattered most. The sky looks blue, not violet, because our eyes are more sensitive to blue light and the sun also emits more energy as blue light than as violet. At sunset and sunrise, the sunlight passes through more atmosphere than during the day when the sun is higher in the sky. More atmospheres mean more molecules to scatter the violet and blue light. If the path is long enough all of the blue and violet light gets redirected out of our line of sight, while much of the yellow, orange and red colors continue along the undeviated path between our eye and the sun. This is why sunsets and sunrise often are composed of yellow, orange and red colors.