

Grp	1. School	2.	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
A1	Anderson Primary School	P3-4	Buoyant containers as Life Savers	This project investigates the buoyancy of different recycled plastic containers. It proposes the ideal quantity of the containers that can be used to save a person's life in a shipwreck.	1. Regan Boon Yi Quan 2. Bethany Grace Eng Li Lin 3. Josiah Delroy Huang 4. Lashirah Ebansha Aaisha 5. Sanjay Balasubramanian	1. Ivan Ng 2. Jerome Leow	Silver
A2	Evergreen Primary School	P3-4	Which is the Most Absorbent?	The Paper Towel Experiment allows pupils to find out which type of paper towel is the most absorbent.	1. ASHWITHALECHIMI D/O SARAVANAN 2. TAN HUI YI 3. LEE LUO TEA 4. RAIYAN RIFQY BIN SAIFUL RIJAL 5. AMAL RAMESH ROGESTER	1. CLARICE TEO TZE YEE 2. Siti Razilah Bte Amir.	Bronze
A3	Evergreen Primary School	P3-4	Bake Using A Paper Box Oven!	To determine if solar energy can be used to cook simple food in a paper box	1. Jazzryn Binte Jumat 2. Pooja Kannan 3. Ong Teng Kai, Matthias 4. Yang Quanle	1. Khalisah Suherman 2. Ling Yun Chin	Gold
A4	Greendale Primary School	P3-4	Investigation on the effectiveness of Eco-friendly Laundry Stain Remover	To investigate the effectiveness of eco-friendly laundry stain remover in removing different types of stain. The aim is to find out if eco-friendly stain removers can replace the commercial ones.	1. WONG JUN MING AIDAN 2. ETHAN LIEW KA DJUN 3. MAHESHWARI NISHKA 4. LEANDRE HUANG GUANG QI 5. YEW YUN RUI	1. Mdm New Xin Yi Jodene 2. Ms Li Jiamin	Bronze
A5	Hougang Primary School	P3-4	Investigation on how colours affects the amount of water harnessed from leaves.	To investigate which colour traps the most amount of heat in plastic bags so as to harness the most amount of water from leaves.	1. Baskar Manisankar 2. Sumayya Binte Mohammad Ismail 3. Lee Yun Kai 4. Sim Ke Xin	1. Soh Lee Yoong 2. Jaclyn See Yuan Ting	Silver
A6	Huamin Primary School	P3-4	Fruity Paper	The project aims to make paper using unwanted fruit peels.	1. Siti Nurayushah Binti Abdul Razak 2. Nur Alysha Binte Abdullah 3. Hoang Nguyen Thu Huong	Haziranisah	Certificate of Commendation
A7	Mayflower Primary School	P3-4	C-thru Soda	To find out which among 3 soda(fizzy) drink yields the most transparent result after adding milk.	1. Tan Junming Axl 2. Zenden Tan 3. Rachel Ng Jia Ying	Siti Zubaidah Samsudin	Certificate of Commendation
A8	Mayflower Primary School	P3-4	The Ideal Pen	An investigation was carried out to find out what qualities make a good pen, and which pen brand and type matched a person's ideal pen.	1. Yet Yan Shen 2. Liu Haishan 3. Tan Zhi Yi 4. Ong Ming Li	Tan Jing Yan	Certificate of Commendation
A9	Mayflower Primary School	P3-4	Finding the stickiest glue available for students	To investigate which commercially available glue is the stickiest that students could use.	1. NG YU XUAN 2. LE NGUYEN NGUYEN SAM 3. ZHUO JUNHUI 4.SONIA KAUR XAVIER	1. Angela Ho Wai Wai 2. Tan Jing Yan	Certificate of Commendation
A10	Naval Base Primary School	P3-4	NATURAL WATER WELLS	How is water naturally collected underground and with water wells how we get drinking water	1. Anika Subramanyam 2. Mahasweta Appalanaidu 3. Aliyah Risdian 4. Alisha Risdian 5. Ang Jian Qi	1. Mr Edmund Hor Yoke Keong 2. Praseetha 3. Subramanyam	Bronze
A11	Naval Base Primary School	P3-4	Fruit Battery	To find out if fruits can produce electricity to light a LED bulb	1. Singh Mohijit 2. Terrell James Ng 3. Naufal Bin Sajari 4. Ha Jiahn 5. Zeng Baoyi	Jeanie Tay Lay Lay	Certificate of Commendation
A12	North Spring Primary School	P3-4	Colour cooler	To investigate the effect of external surface colours on the interior temperature of a building	1. ANANYA PADMASRI SIVAKUMAR 2. MAXIMUS CHYE 3. TOLENTINO RAIN PATRICIA LOUISE SANTOS 4. CHEN YI AN	1. Mohammed Imran Bin Faizal 2. Radiah bte Mohamed	Silver
A13	Rosyth School	P3-4	Garden in the Sky	Rooftop gardens is becoming a common sight in Singapore. Other than transforming Singapore into a green city, can it also help to keep our building cool?	1. Esther Chua Rui En 2. Isabella Peace Ong 3. Leia Sim 4. Low Enru Vera 5. Tan Bing Xuan	Low Rhui Yin	Bronze

Grp	1. School	2.	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
A14	Rosyth School	P3-4	Water - Cooler	In this project, we are going to investigate how we use water to cool the temperature of things around us. This can help us save our environment in future!	1. Jed Fong 2. Zhou Yixi 3. Keegan Nah 4. Kenneth Loh 5. Chevie Lim	Low Rhui Yin	Certificate of Commendation
A15	Woodlands Ring Primary School	P3-4	Plant Seed Paper	To investigate a suitable way to dry the recycled paper (with embedded seeds).	1. Chai Yi Tong 2. Sesaa Nandhinii 3. Chia Yan Feng Vincent 4. Lim Yu Bin 5. Yeo Xian Rui	1. Ong Wai Lian Jenny 2. Tay Shwu Yueh	<b>Gold (with Presentation)</b>
A16	Yio Chu Kang Primary School	P3-4	Sugar, yes please!	We are investigating the amount of sugar there is in a can of soft drink and comparing that of to the same amount of fruit juice. Will drinking fruit juices be healthier than drinking soft drinks?	1. Alson Png Tian How 2. Tran Nhu Uyen Thao 3. Herrera Jillianne Villegas 4. Charles Marcellino 5. Yeo Tee Boon Brandon	Wee Shi Min Melissa	Certificate of Commendation
A17	Yishun Primary School	P3-4	Adjustable self-watering plant system using recycled materials.	To investigate ways to control water flow in a homemade self-watering plant system for optimal plant growth.	1. Aliyah Princess Garcia Labandia 2. Velasco Angela Mae Ramos 3. Cubita Dearon James Almirante 4. Liu Fangyu Cindy 5. Maegan Ashley Ermita Delmacio	Mr Wu Pom Hin Amos	Gold
A18	Yishun Primary School	P3-4	Investigation on the ways to keep fruits fresher and longer	To investigate ways to keep ethylene-producing fruits and ethylene-sensitive fruits fresher and longer using recycled materials.	1. Hasif bin Mualana Abdul Halim 2. Sri Qaseh Nuraisyah binte Abdullah 3. Lee Yun Qian 4. Ishita Gautam 5. Gan Zi Le	Mdm Udiana bte Jamalludin	Certificate of Commendation
A19	WITHDRAWN						

Grp	1. School	2. Category	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
B1	Anderson Primary School	P5-6	Cool Solar Power	The aim is to investigate the relationship between the amount of power output of a solar cell and its immediate surrounding temperature.	1. Kumaravel Deepanaakash 2. Alden Soo Weijie 3. Zahra Aliyah Binte Mohammed Salleh 4. Andrew Kailer Pung	1. Tan Eng Leong Alan 2. Toh Kee Seong Peter	Gold (with Presentation)
B2	Canberra Primary School	P5-6	Effectiveness of Using Magnetite To Clear Oil Spill	The use of biological agents and dispersants are two of the methods used in cleaning oil spill currently. We would like to find out the effectiveness of using magnetite to clean the oil spill.	1. Kenneth Lee Wee Shin 2. Elroy Quek Zhi Yuan 3. Lim Guan Ying 4. Toh Zhi Heng	1. Noorazura Ahmat 2. Abdul Rashid	Certificate of Commendation
B3	Evergreen Primary School	P5-6	Electricity of the Future	Our project aims to compare the efficiency of a solar panel with 5 different brands of battery over a period of time	1. Chong Wei Jun 2. Raynold Tok Xuan Zheng 3. Darany Divya 4. Soh Cai Jin	Nurhida Binte Sapiie Kalaivani Kumareswaran	Gold
B4	Hougang Primary School	P5-6	Worm Tea	Investigate how well plants grow using natural fertiliser like worm tea.	1. Lee Yong Hui 2. Alisha Insyirah Binte Jasni 3. Low Hwee Yun Mandy 4. Peh Peng Zheng	1. Wang Ai Pei 2. Mohan Krishnamoorthy	Silver
B5	Marsiling Primary School	P5-6	Power Stain Remover	It is common that students get pen or marker stains, so we aim to find the best stain remover that we can obtain in our daily life.	1. Erwan Harith Bin Mohamed Emran 2. Chandrakumar Hrithik 3. Mohamad Dani Mirza Bin Mohamad Fauzy 4. Suhaify Bin Sani 5. Sarah Sorfina Binte Azman	1. Mdm Nur Zahidah Anuar 2. Ms How Li Miin	Certificate of Commendation
B6	North Spring Primary School	P5-6	Eco Air Cooler	To construct an effective air cooler capable of cooling a room without consuming electricity	1. LIM KE XIN KERSTIN 2. CHANDRAMOULI ARAVIND 3. LEE YI TING 4. GANESH SHUKVIR	1. Eve Sim Tze Mei 2. Jason Yew Kwok Ming	Bronze
B7	North View Primary School	P5-6	Creamy Cracking Crackers	To find out which brand of cream crackers has the least amount of oil and is least detrimental to health.	1. Chan Shan Wei Jovin 2. Lew Hao Ming Derrick 3. Frondarina Gian Ross Vargas 4. Tay Bao Chuan, Aloysius 5. Ong Zirui, Jesserel	Chang Poh Poh	Bronze
B8	Peiying Primary School	P5-6	Reach for the Stars	Pupils will explore the various factors that will affect the distance travelled by a water propelled rocket.	1) NGIM HUI YUE 2) TAY XIU QI, DEBBIE 3) YEO KEE CHING EUNICE 4) LEE XUEYU, AXEL 5) MALCOLM PYE THANT	1. Yong Lih Tze 2. Chew Koo Hui, June	Silver
B9	Si Ling Primary School	P5-6	Stay Fresh	This project aims to investigate which acid is the best food preservative.	1. Navalingem Amirna 2. Lai Xin Ni 3. Chong Fei Huan 4. Oh Woon Zong	1. Miss Teo Shi Hui 2. Mrs Christa Tham	Certificate of Commendation
B10	Xishan Primary School	P5-6	Investigation on how the surface area affects the stability of drones	To investigate how the area of the drone affects its stability	1. Anushri 2. Mallika Rawat D/O Shri Ram 3. Dhaniyah Aqilah Binte Suhaidi 4. Toh Natasha 5. Yeoh Ee Shuen	1. Iva Chia Jing Yi 2. Amanda Tan Ying Ying	Certificate of Commendation
B11	Yio Chu Kang Primary School	P5-6	The effect of surface temperature on fingerprints.	Fingerprints are used for identification of individuals and at crime scene investigations. This Science project investigates how surface temperature affects the clarity of the fingerprints. The results of this investigation may help us trap criminals.	1) Ganvkar Aaryan Sanjay 2) Ng Celeste 3) Adam Amir 4) Jeren Lo Yu Kai 5) Subbayan Agathiyan	1. Mrs Yean Sok Kheng 2. Ong Hui Ying Geraldine	Bronze
B12	Mee Toh School	P5-6	Powering a car using wind energy	The aim is to create a car that is powered using wind energy. We will find out if the size of the sail affects the distance travelled by the car	1. Tan Wen Si Portia 2. Chong Shiang King. 3. Jayden Ng 4. Sheryl Tay Ke Ying	Tan Sue Cheng	Certificate of Commendation

Grp	1. School	2. Category	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
C1	Anderson Primary School	P5-6	May The Frictional Force Be With You	The aim is to find out how the number of interleaved pages of Post-It-Note pads affects the amount of force needed to separate them.	1. Lyn Guok Kai, Tristan 2. Phua Jun Kai 3. Balasubramanian Abhinav 4. Chuah Jie Xun	1. Tan Eng Leong Alan 2. Toh Kee Seong Peter	Gold
C2	Endeavour Primary School	P5-6	Stain Busters	To find out which laundry detergent (environmentally friendly vs non-environmentally friendly) is most effective in removing stains from clothes. To raise awareness of the harmful effects that environmentally-unfriendly detergent has on the earth.	1. Tan Jie Xin 2. Ho Keng Hin 3. Kylie Khoo Hoi Yann 4. Tay Shu Sui 5. Neo Augustine	1. Claire Tan E Peng 2. Loh Cai Ying	Silver
C3	Greendale Primary School	P5-6	Lighting Up on "Micro" Power	Microbial fuel cell will be designed using household products. Different concentrations of the solutions will be used to investigate which concentration will provide the most amount of energy.	1. Donthireddy Sai Praneeth Reddy 2. Kang SiQi, 3. Tan Yun Qi 4. Chong Wei En, Samantha, 5. Vernice Yeo Shu Ting	1. Nur Hafizaa Halim Sah 2. Caelyn Whyndee Lim	Bronze
C4	Marsiling Primary School	P5-6	Investigation on the suitability of edible utensils to replace disposable plastic utensils	This project aims to highlight the negative impacts of the use of disposable plastic utensils on the environment and explore the possibilities of an alternative approach that is edible and biodegradable in nature.	1. Oh Kang Xu, Jeremy 2. Lin Lett Shwe Yee 3. Naw Htee Moo 4. Myat Thazin Soe 5. Amsyar Alfaatih Ibnu Reduan	Sim Swee Sheng Danny	Certificate of Commendation
C5	Mee Toh School	P5-6	Powering a car using wind energy	The aim is to create a car that is powered using wind energy. We will find out if the size of the wheels affects the speed of the car	1. Renee Lim Xin Ni 2. Yong Si Min 3. Wayne Lim Tye Ming 4. Valen Lim Zhen Yu 5. Zelig Ng Tian Le	1. Tan Sue Cheng	Certificate of Commendation
C6	North View Primary School	P5-6	Monthly BFF, Pad Pad to the Rescue!!!	To find out which sanitary pads among 5 popular brands is the most absorbent thus comfortable for young female teenagers.	1. Ong Ying Cui Phionna 2. Tan Wee Leng Shanice 3. Tan Jia Min 4. Cheryl Zhou	Mdm Kho Yen Ling	Bronze
C7	North Vista Primary School	P5-6	Investigation on how different types of tomato juice affect plant growth	The aim of the project is to find out the nutritional value of the different types of tomato juice (fresh organic, fresh non-organic and can juice) on plants.	1. Foo Jun Wei Ernest 2. Anmol Srivastava 3. Deon Low Di'en	Wendy Teo	Certificate of Commendation
C8	Peiying Primary School	P5-6	LIGHTS, ACTION	We wanted to find out which liquid/solution has the greater electrical conductivity and find out the reasons behind it.	1. MIHIR GIRISH BIDKAR 2. GLENDON CHEE KONG SIN 3. LIONEL ONG TENG HONG 4. PNG JAY SEN 5. LIN ZIQI	MOHAMMED FAIZAL BIN ISA	Bronze
C9	Woodlands Ring Primary School	P5-6	Bioplastics	To investigate on the durability of the bioplastics	1. Joel James 2. Mohammed Haikel Faisal Bin Mohammed 3. Tan Kit See Jessica 4. Laura Zheng Kailin 5. Lim Shang Xian	1. Ong Wai Lian Jenny 2. Tay Shwu Yueh	Gold
C10	WITHDRAWN						
C11	Yio Chu Kang Primary School	P5-6	How do different cooking alternatives affect the Vitamin C content in vegetables?	This investigation is to find out how different cooking methods affect the Vitamin C content in vegetables. Vitamin C is an essential mineral to the human body and vegetables are the main source of diet. In order to preserve the Vitamin C, the vegetables have to be cooked in the best way possible.	1) Triniece Ong Xin Ting 2) Sun Yutong 3) Althea Ng Jing En 4) Samyuktha Devendran 5) Oe Ming Shin	1. Mrs Yean Sok Kheng 2. Ong Hui Ying Geraldine	Silver
D1	Canberra Primary School	P5-6	Project on Eco-Friendly battery charger using a mini portable fan	To make an eco-friendly battery charger that converts kinetic energy to electricity to recharge AAA batteries using a fan.	1. Toh You Xuan 2. Kho Yuan Jie 3. Chen Helin	Chia Siew Chin	Bronze

Grp	1. School	2. Category	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
D2	Endeavour Primary School	P5-6	Guppy Madness	To find out how pH value of water will affect the gender ratio of guppy fry	1. Denzel Tan 2. Gan Xi Yee 3. Teoh Yu Yang 4. Xaverie Lim 5. Pamela Alviento	1. Matt Lim Chin Boon 2. Jocelyn Koh Pei Li	Gold
D3	Hougang Primary School	P5-6	Keep that Bread Fresh	Investigate the ability of different natural food substances to absorb moisture from air to keep food fresh for a longer period of time	1. Alfred Lim Wei Xiang 2. Jeriah Lee Rui An 3. Seah Jia En Germaine 4. Lim Yan Han	1. Ko Kuan Woei	Gold
D4	Marsiling Primary School	P5-6	Housing Colours	The world average temperature is rising due to climate change. As most people work or stay in buildings most of the time, we aim to find out which paint colour will make indoors cooler.	1. Soo Zhi Kang 2. Yeoh Wan Yee 3. Sharlen Aurelia Foo Xiao Yun 4. Pragathesrueben S/O Subramaniam 5. Yeoh Yi Hong	1. Mdm Nur Zahidah Anuar 2. Ms How Li Miin	Bronze
D5	Naval Base Primary School	P5-6	Measuring Air Pollution	How to determine the amount of foreign particles in the air in a specific area.	1. CASSIUS LOWE LI SHANG 2. LIM LI XUAN 3. MAHADEVAN DINESH 4. ALICIA TAN HUI LING 5. YUEN JUN KAY, ROMAN	Tee Junjie	Certificate of Commendation
D6	North View Primary School	P5-6	Soft and Tender like a Baby	To assess the pH of different brands of bathing products in relation to our skin's pH level.	1. WONG YONG MING RANDALL 2. GIN JING YANG JACKSON 3. FAN KAI WEN CARVEN 4. ROY TAN KUAN HONG 5. ADRIAN WOO KAI PING	Tan Tze Yan Sylvia	Certificate of Commendation
D7	North Vista Primary School	P5-6	Investigation on the amount of sugar present in the most common beverages that school children intake	The aim of the project is to find out the amount of sugar that was present in 3 of the most common beverages (frizzy soda, non-frizzy drink and fruit juice) that school children intake.	1. Umetsu Mirchandani Navin 2. Ranon Chia Yon Luk 3. Wong Guan Yuan	Wendy Teo	Bronze
D8	Peiying Primary School	P5-6	Better Memory?	The team aims to find out if highlighted text and coloured font type would affect information retention.	1. Khok Jie Ying 2. Marisa Renjia Lee 3. Ng Zi Shuen 4. Sanyukta Arunkumar 5. Lim Yu Jie	1. Mrs Joanne Soo 2. Sim Ya En Avery Rhoda	Silver
D9	Woodlands Ring Primary School	P5-6	Organic waste Bioplastic	Our project aims to create bioplastics using banana peel. The bioplastics are subjected to strength test and waterproof test	1.Nafilah Binte Kosnan 2.Cassis Chua Poh Yu 3.Thet Htoo Aung 4.Lee Jia Ming 5.Leyo Hou Zhe	1. Ong Wai Lian Jenny 2. Tay Shwu Yueh	Certificate of Commendation
D10	Xishan Primary School	P5-6	Filtering muddy water	To find out the best type of cloth to filter muddy water to clean water	1. Yang Hao Wen 2. Wei MingJun 3. Jae Ng Ky Earn 4. Yin Haojia 5. Wasfi Bin Azad	1. Iva Chia Jing Yi 2. Amanda Tan Ying Ying	Certificate of Commendation
D11	Mee Toh School	P5-6	Powering a car using wind energy	The aim is to create a car that is powered using wind energy. We will find out if the type of material of the sail affects the speed of the car	1. Choy Wee Ling 2. Tan En Xi 3. Chan Kok Jun Clovis 4. Kesler Ong Xian Hong 5. Lee Bryan	Tan Sue Cheng	Silver

Grp	1. School	2.	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
E1	Anderson Secondary School	S1-2	A comparative study of the concentration of proteins present in different types of plants	The protein content of different plants were compared using UV spectrophotometer. The aim of the investigation is to determine which plants have the highest protein content and to make it into protein capsules.	1. Abdul Arif Bin Abdul Rahim 2. Denise Siah Hsu Xuan 3. Huang Yunqi 4. Alethea Lee Li Xuan 5. Suhana Bte Suhairi	Leow Teng Hong Lim Guo Xian, Andrew	Certificate of Commendation
E2	Bowen Secondary School	S1-2	Investigate the denaturation of Protein	The project aims to find out if plant or animal proteins require higher temperature to be denatured.	1. Gay Yu Min 2. Ivonnice Soh 3. Liao Yaling 4. Tay Ting Hui 5. Grace Wiggins	1. Hajjah Marlina Bte Kumar 2. Wang Liyang Jake	Certificate of Commendation
E3	CHIJ St. Nicholas Girls' School	S1-2	Effects of Homemade Disinfectants on Bacteria	Homemade disinfectant (made from hydrogen peroxide and vinegar) has the least bacteria growth on both wood and plastic cutting boards.	1. Chan Wei Lin 2. Lee Xin Rou, Alicia 3. Peh Ming Ying	Wan Yew Boon	Silver
E4	Compassvale Secondary School	S1-2	An investigation on collection of pure water from distillation of moisture in a solar still	To increase yield of water catchment, natural distillation is identified as a novel source of water collection. In this investigation, we look at the effectiveness and efficiency of solar stills.	1.LEE XINYI 2.ROWENA BIN XUAN AL-SODINAY 3.MAVIS CHAN JING WEN 4. SOR SI XIAN 5. TAN JIE MING	1. Su Weilun 2. Nicholas Choy	Certificate of Commendation
E5	Evergreen Secondary School	S1-2	Making biodegradable Plastic from Starch	This project is done to find out which type of starch will make the best biodegradable plastic in terms of tensile strength	1. Kuan Wen Qi 2. Chew Hui Min 3. Sheryl Renee Foo 4. Clarence Lim Si Ying	Lee Kim Fatt	Gold
E6	Hougang Secondary School	S1-2	Effects of Acidic Rainfall	Environmental pollution has become unacceptable and despite having an increasing level of awareness of its effects on the environment, Singaporeans are not taking a sufficiently active role in helping our environment. Many Singaporeans believe that it is not as severe as it seems and feel that it happens in other areas of the world but not as much in Singapore. This project aims to increase the awareness of the effects of environmental pollution in Singapore by exploring the effects on both land and sea due to acidic rainfall. Samples of water bodies, soils and rainwater would be collected for analysis on the composition of the various component to gather sufficient information as evidences to increase the awareness of environmental pollution in Singapore.	1. Basa Desseree Rose Querubin 2. Cassandra Nikhita Das 3. Izman Asnawi B Muhammad Hir 4. Muhammad Ilhan Zirky B Musa	1. Ms Lee Min 2. Ms Kartini Mohammad Sidek 3. Mr Soh Yen Meng	Certificate of Commendation
E7	Nan Chiau High School	S1-2	Investigating the Effects of Additives on Strength of Plastic made from Starch	We seek to investigate the effect of adding different substances known as additives on the strength of plastic made from starch. We will be making plastic using a type of starch and the variable that needs to be changed is the type of additive used in making the plastic. We will then measure the tensile strength of the plastics made.	1. Li Ximing 2. Mervyn Teo Ziyan 3. Braedon Tay 4. Tan Say Kit Edison	Ms Nurhaida Bte Ramli	Silver
E8	Orchid Park Secondary School	S1-2	Investigating Properties of homemade bioplastics	To make and investigate the properties of various types of homemade Bioplastics in an attempt to find out which is the most suitable starch to make Bioplastics	1. Lim Heng Yu 2. Chee Chen Feng Sean 3.Dian Sofia Bte Riduan	Mrs Chloe Huang	Bronze
E9	Presbyterian High School	S1-2	Effectiveness of SPF (Sun Protection Factor) value on UV protection	Using light sensitive silver salts, this project investigates the effective of SPF value to protect us from the harmful UV rays.	1. BENNY LEE JUN JIE 2. IRVING TAN 3. JEREMY WONG KAI YEE 4. POK OUKANG 5. SENG PENG CHUAN	Tan Jia Yi	Certificate of Commendation
E10	Singapore Chinese Girls' School	S1-2	Which method of washing lettuce eliminates the most bacteria?	Investigate how effective methods of washing are in removing bacteria.The result would be measured by incubating agar plates with an imprint of the lettuce leaf and finally observing the number of colonies of bacteria left on the agar plates.	1. Sania Shah 2. Emily Ong 3. Tay Shu Shuang 4. Hannah Caroline Solomonraj 5. Athirah Firzanah Osman	1. Julia Teo 2. Yeo Siew Li 3. Chan Yoon Teng	Gold
E11	Yishun Secondary School	S1-2	Usage of natural plant Moringa seeds extract and fruit peels to remove bacteria and impurities from a polluted water body	To investigate the ability of Moringa seeds from the Moringa Oleifera plant species to remove the bacteria present from water samples collected from different locations and the ability of banana to remove impurities due to toxic metals present in main water source.	1. Muhammad Amirul Bin Ramlee 2. Lee Zhi Wei 3. Leow Jia Xin 4. Kathleen Tay Kai Lin 5. Bo Bo Min	1. Muhammad Hafiz Bin Mornin 2. Albert Kang 3. Siti Alwiyah Bte Ismail	Certificate of Commendation

Grp	1. School	2.	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
E12	Yishun Town Secondary School	S1-2	Efficacy of green tea and citrus fruits in killing Escherichia coli	The consumption of green tea (Camellia sinensis) has been shown to have many health benefits. In this research, green tea was investigated where its components were determined for their effects and efficacies in killing common harmful bacteria such as Escherichia coli.	1. CHANG JIUN HOW, JASON 2. CHAN LIN AI, CARRINA 3. TAN KAR HENG 4. GOH MIN YI, SANDRA	Mr Toh Wei Xiang	Bronze
F1	Anderson Secondary School	S1-2	Using Cilantro plant to purify water	We aim to provide clean drinking water for people in less fortunate countries who cannot afford it by using cheaper means of purifying water using cilantro.	1. Hannah Adira Bte Sharin 2. Nursyaliza Bte Norazhar 3. Jorja-Jade Loh Kai Lin 4. Chan Jingwen 5. Shi Lisheng	Khooh Sin Hua Felicia	Certificate of Commendation
F2	Bowen Secondary School	S1-2	Investigation on the effectiveness of antibacterial wet wipes in removing bacteria on skin surface	The project aims to find the most effective antibacterial wet wipes, and the shortest usage time required for the wipes to be effective. The amount of bacteria growth on agar gels will be used for comparison.	1. Eason Goh Kim Moh 2. Kirthika Raman Surendaran 3. Srinivasan Shivaneesri 4. David Pajja 5. Charlene Chua Yan Hong	1. Mdm Liang Ruishan 2. Mr Chew Hui Jie	Certificate of Commendation
F3	Christ Church Secondary School	S1-2	Comparative total polyphenol content in different types of tea prepared in different temperature water to determine the antioxidant benefits of drinking tea.	The aim of the experiment is to investigate the tea with the best total phenol content for consumption, and the best method to prepare tea so as to preserve and maximise its antioxidant properties	1) LOIS NITHIYA SAWNTHARAJAN 2) ONG SHI HUI 3) HIWASE PARTH 4) BACAY VOHN GABRIEL BULOTANO 5) LIM BO XUAN PIERCE	1. TOH MINMIN 2. ONG CHIAO LING	Bronze
F4	Compassvale Secondary School	S1-2	An investigation on the effect of sleep deprivation on biomarkers	To reduce risk of accidents resulting from sleep deprivation, saliva content was identified as a possible biomarker of alertness. This investigation examines how sleep quantity affects salivary amylase concentration.	1. Alex Low Hao Han 2. Damienn Foo 3. Lim Kia Xuan Queenie 4. Koh Zhi Rong 5. Tan Hong Ming	1. Ho Jiawei Aaron 2. Lim Yiling Clarissa	Certificate of Commendation
F5	Evergreen Secondary School	S1-2	Charging mobile devices with kinetic energy	This project aims to investigate how the frequency of rotation will affect the output voltage of the device.	1. CHONG JIE EE 2. CHONG JUN RU 3. MINERVA LAU JIA YI 4. TANG LI ERN	Chia Ai Li Joan	Bronze
F6	Hougang Secondary School	S1-2	To investigate the effect of colour on the interior temperature of a house	Looking at today's weather and the drastic climatic change, we would like to experiment with different colours and find out how 3 chosen colours/paints have any effect to the interior temperature of a housing. We painted three identical boxes to simulate 3 painted houses.	1. Kennason Chew Liang Xi 2. Goh Li Ting 3. Koh Zheng Jie Benjamin 4. Lim Hui Jing	1. Radzawaty Jamaludin 2. Ang Yong An 3. Lim Kok Meng	Certificate of Commendation
F7	North Vista Secondary School	S1-2	Decomposition of fruits and vegetables	Testing on best natural ways to prolong the lifespan of fruits and vegetables.	1. Lin Wei Xuan 2. Loh Zi Yan 3. Dylan Kang 4. Manesh Lingam 5. Justin Ow	1. Abdul Ra'uf 2. Mohd Hafeez	Certificate of Participation
F8	Orchid Park Secondary School	S1-2	Investigating the most effective method to reduce the acidity of tea	To determine the pH value of common teas consumed. To investigate the most effective method to reduce the acidity of tea.	1. Emelia Bte Ridhuan 2. Deslyn Ong Shi Ping 3. Kyle Gabriel Lim Vasquez 4. Leung Hao Wei 5. Tan Yong Kang, Adrian	Jacqueline Lie	Bronze
F9	Punggol Secondary School	S1-2	Investigation on the effect of worm castings filtrate on germinating green beans	To investigate the effect of worm castings filtrate on germinating green beans.  The objective is to find the optimum concentration of worm castings filtrate that promotes growth in germinating green beans.	1. NAYLEY IRDEANNA BTE IBRAHIM 2. NG JIE MIN DEIRDRE 3. KOH SWEE TECK, DEDRICK 4. LEON CHIA CHANG LONG	1. Mr Roy Tan Jun Yi 2. Mrs Yap Xiao Ying 3. Mr Stephen Low Tuck Chuen	Silver
F10	Woodgrove Secondary School	S1-2	Effect of oil spill on Acorn Barnacle (Balanus sp.) and biodiversity of intertidal organisms	This study aims to investigate how Acorn barnacle and biodiversity of intertidal organisms on rocky shores are affected by oil spills.	1. Kelvan Koh Kai Wei 2. Amelia Tay Yu Xuan 3. Sin Xiu Ning 4. Kevin Heng Dexue	Cher Chuin Yuan	Silver
F11	Yishun Secondary School	S1-2	White Rice and its Effect on Blood Sugar Levels in the Human Body	To investigate the amount of starch in different types of white rice and its potential effect on increasing blood sugar levels in the human body.	1. Nyrene Anne Villaseñor Tan 2. Mohamed Esa B Mohamed Elias 3. Tracy Lee Yilin 4. Jimmy Chong 5. Yang Mingxing	1. Goh Siew Kee 2. Albert Kang 3. Norhaytiy Bujang Norhaya	Gold

Grp	1. School	2.	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
F12	Yishun Town Secondary School	S1-2	Green tea hand sanitizer	Green teas brewed using different temperatures of water (10oC, 20oC, 30oC, 40oC, 50oC and 60oC) are being used to test its effectiveness against body bacteria. After that, the green tea extracts brewed at the most effective temperature will be used to make a hand sanitizer.	1. MOK XIAO ROU 2. NURASYIQIN BTE ISKANDAR A Y 3. CHANG ZHE WEI 4. ENG YU TONG, EDMUND	Ms Teo Lin Ling	Gold
G1	Anderson Secondary Schoool	S1-2	Investigation of vitamin C content in berries	Research shows that Vitamin C degrades over time. However, most research focus on its stability in fruits. This research aims to measure the change in vitamin C content in berries.	1. Lee Xin Xuan 2. Hong Jia Wei 3. Tang Pei Xuan 4. May Thalín 5. Shang Zhan Feng	Lai Rher Wei	Silver
G2	CHIJ St. Nicholas Girls' School	S1-2	The Effect of Natural Meat Tenderizers on the Tenderness of Chicken Breast	Meat was soaked in kiwi, lemon, and pineapple juice for different amounts of time. The tenderness of each piece of chicken breast was tested using the "Wire Slicing" method.	1. Aw Kimberly 2. Karen Low Ke Wen 3. Shannie Kwok Le Yi	Wang Choon Kiat	Bronze
G3	Christ Church Secondary School	S1-2	Chitosan extraction from crustacean: effectiveness as a plant growth promoter	The chitosan yield from three crustaceans were measured following the extraction of chitin from their shells. The effects of chitosan on plant growth were then investigated.	1.Poh Shao Zhe Ean 2.Daiyan B Eddie 3.Ng Qiao'Er Shanice 4.Xavier Ang Yan Jun	1. Muhammad Khairulnizam 2. Ramiah Kamala Devi	Bronze
G4	Deyi Secondary School	S1-2	Investigation of the Antibacterial Properties of Traditional Chinese Medicines	The discovery of the first antibiotic, penicillin, opened up a new horizon in Western medical field which revolutionized medicine in the 20th century. The effectiveness of antibiotics and their accessibility resulted in misuse and overuse, giving rise to creation of antibiotic-resistance bacteria. Traditional Chinese Medicine doctors have a different clinical practice from Western doctors – natural herbs are used as medicine instead. Hence, the aim of this project is to investigate the antibacterial properties of common traditional Chinese medicines and assess their possibility as natural alternatives for antibiotics.	1. Joanne Lim 2. Tan Yi Xuen 3. Sheum Koon Heng, Rio	1. Teo Chong Ming 2. Leng Su Yee	Silver
G5	Greendale Secondary School	S1-2	How walls affect Wi-fi signals	To investigate to what extent wi-fi signal is affected by concrete, soundproof, plaster and wooden internal walls by measuring the changes in the speed of internet using a speed-test app.	1. Chua Meng Tze 2. Elliot Feng Ruiyu 3. Liu Xuantao 4. Tan Qing En 5. Peter Enwei	Lim Yu Ling Eileen	Certificate of Commendation
G6	Montfort Secondary School	S1-2	Investigation on the various waste waters to water plants	Investigate the effects of alkaline water on plant growth	1. Eugene Ang Shi Wei 2. Joel Lee Jiajun 3. Eddry 4. Caelen Chin Jun Wei 5. Kee Jie En	Lee Jia Qi	Certificate of Commendation
G7	Northbrooks Secondary School	S1-2	To investigate either bleach or detergent or tap water works more effectively in cleaning Kopi-O stains	This project seeks to investigate the effectiveness of the removal of coffee stains by bleach or detergent or tap water.	1. ESTELA ASTRID SHANYA ALMENDRAS 2. KOO JIA QI 3. AIDAN KOH SONG WEI 4. BHORI HAIDER 5. CHEOK KENG XIANG	1. MS LAU SHU WEI 2. MRS CELINE GOH	Certificate of Participation
G8	Pei Hwa Secondary School	S1-2	Banana-Plastics!	Bio-plastics are derived from renewable sources such as agricultural waste. This project aims to explore the possibility of manufacturing bio-plastic from food wastes such as potato skins and banana peels.	1. Belinda Tan Hui Zhen 2. Chng Mei Yen Faith 3. Orion Raysher Lee 4. Pagadala Manisha 5. Roan Ng Swee Emg	1. Shirlyn Sim 2. Fathimatuzzahraa Burhanuddin 3. Hong Chiew Yong, Tracy	Bronze
G9	Serangoon Secondary School	S1-2	Investigations on Overnight Food	To investigate the amount of bacteria, nitrate and vitamin C found in overnight food. The aim is to find which type of overnight food is safe and beneficial for consumption.	1. Goh Jun Jie 2. Aloysius Koh Jun Kiat 3. Sharlyn Wong Xu Wen 4. Indah Fatihah Bte Mohamad Yusoff	1. Mr Jonathan Ng 2. Mr Goo Chun Song	Gold
G10	Woodgrove Secondary School	S1-2	Effectiveness of detergents on removal of food stains	To investigate the effectiveness of detergents on removal of food stains as certain detergents may contain enzymes. 3 brands of common household detergents were used in this project.	1. ZEN PEI HSUAN 2. SYED IBRAHIM ALSAGOFF 3. GOH XUAN XUAN 4. TAN JIA YI	Lim Wen Jing Eliza	Certificate of Commendation



Grp	1. School	2.	3. Title of Project	4. Synopsis of Project	5. Names of participants	6. Name of mentor 1	Result
G11	Yishun Secondary School	S1-2	Bioplastic - A Green Alternative to LDPE Plastics	To investigate the flexibility of different types of starch-based bioplastics as an alternative to commercial low-density poly(ethene) (LDPE) plastics.	1. Mohamed Nor Iman B Abdul Malek 2. Yeo Yong Wen 3. Abdul Asim Fami 4. Ayu Sri Balqis Bte Hasmuri 5. Jason Chow Jie Wei	1. Albert Kang 2. Tan Ee Cheng 3. Valerie Chan Chu Ting	Gold
H1	Bowen Secondary School	S1-2	Investigation on finding the best natural anti-fungal to prevent mold growth	The project aims to find the best natural anti-fungal that can prevent the growth of bread mold for the longest time, such as using aloe vera, vinegar and citrus fruits.	1. Aysha Shafeeqa Bte Abdul Aleem 2. Sim Chia Woon 3. Wayson Wang Jia Rui 4. Lim Jia Jun Dillon 5. Sun Cheng Yang Xavier	1. Mrs Evelyn Chia 2. Mr Edmund Chua	Silver
H2	CHIJ St. Nicholas Girls' School	S1-2	Effects of different type of milk on the strength of plastic	The strength of plastic was investigated based on different types of milk used to make the plastics (e.g. whole milk, 0-2% fat milk, fat-free, lactose-free milk and organic milk)	1. Seet Jiewen, Megan 2. Tammie Ong Zi-yin 3. Tammy Tan Liwen	Lua Li Wen Clarissa	Silver
H3	Christ Church Secondary School	S1-2	Nutritional analysis of sprouting beans.	Aim of the project to determine whether it is more nutritious to eat sprouts compared to beans by analyzing their protein, sugar, fat and cation levels.	1. FAJUTAG JOHN FRANCIS FAJARILLO 2. CHRISTIE NG MEI QI 3. ANNIKA BATRISYIA PUTRI M R 4. SIEW RUI YI, JANEEN 5. LOH MIN QI CHELSEA BELLE	1. Rajeswari Sinkaram 2. Hanni Yeo	Certificate of Commendation
H4	Evergreen Secondary School	S1-2	Investigation on whether using recycled food & fruit waste can produce energy for our daily use	Food sources such as potatoes and green lemons can be used to generate electricity. This project aims to investigate the amount of electrical energy generated using waste food and bread mold.	1. Goh Jia Xuan 2. Wong Jia Xuan 3. Tan Jun An 4. Luo Rong Rong	1. Tseng Jih Cheng 2. Tan Yin Fun	Bronze
H5	WITHDRAWN						
H6	Nan Chiau High School	S1-2	Investigation on the use of Lactic Acid Bacteria in the preservation of chilled meat	The use of Lactic Acid Bacteria in chilled meat preservation is studied against salt and sugar preservation.	1. FONG ZHI YEN (FENG ZIZHEN) 2. TAN XUAN HUAN 3. ESCHER OH BOON QIAN 4. CHEE YUN HUI, JULIA 5. TAN XUAN LE	Zheng Jiahui Esther	Gold (with Presentation)
H7	Northbrooks Secondary School	S1-2	To investigate what kitchen-found substances can remove coffee on white cotton cloth	This project seeks to investigate the ability of the kitchen-found substances such as coke, vinegar, soya milk, milk, ice-cream soda, lemon juice and water in removing coffee stains.	1. REOLO JERICA JAZMINE YAN 2. GOH JUN KIAT 3. MOHAMMAD AFIQ B AZRI 4. WEI RONGTIAN	1. MS WENDY LEE CHIEN WUAN 2. MRS CELINE GOH	Certificate of Commendation
H8	Presbyterian High School	S1-2	Effects of common beverages on gastric juice	This project investigates how common beverages can help to ease gastric pain due to excess amount of hydrochloric acid in the stomach by neutralisation.	1. CAIDA TAN XIAN PEI 2. OH SHI TING JERMAINE 3. TAN XING YEE 4. SOON WEY PENG 5. NUNNA DWEEPANVITHA	Tan Jia Yi	Certificate of Commendation
H9	Singapore Chinese Girls' School	S1-2	Turning food waste into usage	We aim to create a do-it-yourself product that is able to collect gases that are emitted from decomposing food waste, hence producing energy and reduce environmental waste.	1. Genevieve Wong Shih Ting 2. Joleen Tan Wei Leng 3. Priscilla Chan 4. Tricia Mae Wong 5. Sheryl Tan Yen Pin	1. Julia Teo 2. Yeo Siew Li 3. Chan Yoon Teng	Gold
H10	Woodgrove Secondary School	S1-2	3IN-ONE® Portable Filtration System for Potable Water	Designing a portable filtration system that is inexpensive and able to produce potable drinking water.	1. Ashley Soh En-Le 2. Siti Sarah Bte Mohamed Iskandar 3. Chung Yue Heng 4. Poh Kai Jie	Reeve Ng	Bronze
H11	Yishun Town Secondary School	S1-2	EXPERIMENT OF DIFFERENT TEAS AGAINST E. COLI	This study aims to determine which type of tea is most effective against E. coli. The 2 scientific methods used in this experiment are the tea extraction method and the broth microdilution method. Through this study, we investigated the antibacterial property in tea so that it can be further harness as possible health products.	1. Tan Hong Ling 2. Tan Chu Yi 3. Ong Jun Jie 4. Kelvin Ong Guan Cheng	Mr Winston Quek	Bronze