



MEXT

MINISTRY OF EDUCATION,  
CULTURE, SPORTS,  
SCIENCE AND TECHNOLOGY-JAPAN

## SEAMEO-Japan ESD Award

### Submission Form of 2017 SEAMEO-Japan ESD Award Theme: Improving Health and Nutrition

The last day for submission of entries: 5 September 2017

- To participate in the 2017 SEAMEO-Japan ESD Award, please submit the information of your school's project/programme on "Improving Health and Nutrition" by using this Submission Form.
- The **digital format of this Submission Form** can be downloaded from the SEAMEO website: [www.seameo.org](http://www.seameo.org) or requested by sending an email to: [seameojapan.award@seameo.org](mailto:seameojapan.award@seameo.org).
- The **guidelines for submission of entries and judging criteria** are detailed in page 8-10 of this document.
- Schools must ensure that the SEAMEO Secretariat receives their entries by Tuesday 5 September 2017.
- More information, please contact the SEAMEO Secretariat, Bangkok (Telephone number: +66-2391-0144, Fax number: +66-2381-2587 and Email address: [seameojapan.award@seameo.org](mailto:seameojapan.award@seameo.org))

### **PART I: Details of Your School**

1. Name of your school: Serangoon Garden Secondary School
2. Full address: 21 Serangoon North Ave 1
3. Postcode: 555889 4. Country: Singapore
5. School's telephone number (country code+city code+telephone number): 6288 9227
6. School's fax number (country code+city code+fax number): NIL
7. School's email Address: stephen\_tay@schools.gov.sg
8. Name of the Head Master/Principal/School Director: (Mr) Stephen Tay
9. Name of the Teacher Coordinator: (Ms) Angela Ho Jiawen
10. Email address of the Coordinator: ho\_jiawen\_angela@moe.edu.sg
11. School website (if available): http://sgs.edu.sg/
12. Educational level (Such as Grade/year 1-6 or Grade/year 6-12): 6-12
13. Total number of teachers in your school: 120 Teachers
14. Total number of students in your school: 1097 Students
15. Approximately number of teachers participated in planning and implementing this school's programme for improving health and nutrition: 10 Teachers
16. Approximate number of students participated in planning and implementing this school's programme for improving health and nutrition: 1000 Students

## Project Overview

Every year, our students embark on learning beyond the classrooms through various community engagement programmes. Through this, we aim to expose our students to experiential learning of life skills, values as well as 21<sup>st</sup> century competencies for future-readiness. At the same time, this will provide them a platform to give back to society through advocates of healthy living and live out our school value of empathy for community impact.

Overall, the theme “**Immersing Nutrition and Food Science (NFS) into the community**” is closely linked to ACTIVE@SGS framework. This framework is the key structure to all health related programmes. After students understand the content taught and with interest, passion, and desire to live active & healthy lives, students will participate in various school activities and choose healthy lifestyle options while desiring to influence others and promote active and healthy living to friends, family and society.

ACTIVE@SGS has 3-tiers and comprises of 4 phases to each level of Singapore’s Secondary School system. The 3 tiers are *Know, Live and Lead*. The 4 phases are catered based on age-appropriate activities and is part of the management plan, curriculum, teaching and learning practices, daily routines of students and student activities.

The first phase is for 13-year olds, secondary 1 students. All Secondary 1 students are required to take Food and Consumer Education as their subject upon entry to secondary school. At the end of a school term they are involved in a Lifestyle programme (LSP). The Sec 1 LSP comprises 2 components, namely a two-day Sports for Life Programme as well as a Healthy Sandwich-Making Inter-Class Competition. Through the **Sports for Life** Programme, Sec 1 students are exposed to a range of sporting activities, including activities such as tchoukball and archery which are less accessible for our students in their daily lives. This component helps to broaden students’ interest in active living through sports which they have never tried before, and helps them find a sporting activity that they are more willing to take on in secondary school even if they do not belong to a sports co-curricular activity. The second component, the Healthy Sandwich-Making Competition, provides students an opportunity to learn and try their hands at making healthy sandwiches. Students are required to exercise their creativity and work in teams to complete their sandwiches, before showcasing their proud works to a panel of judges. Through the competition, students are encouraged to create healthy sandwiches which they are proud of, with the aim of having SGSians share their own customised recipes with their family members and friends, and thereby educating their loved ones on the importance of eating healthily. Students also learn about the nutritional tools e.g. My Healthy Plate and nutritional values of various ingredients used in the sandwiches, which they are also to share with their friends and relatives. **This transforms the school into healthy learning environments and promotes sustainable healthy habits of students, parents and community.** This programme fulfils the first two tiers of ACTIVE@SGS framework of “*Know, Live*” The second phase is for secondary 2 students. All secondary two students are required to apply what they have learnt in Secondary 1 and 2 to the community. Through the Food and Consumer Education lessons, they are to apply their content knowledge and formulate healthy recipes which are family friendly. This platform has a collaboration with *Singapore Kindness Movement co.* Collaborating with external partners not only allow students to deepen learning but also broaden the sharing through “*Know, Live and Lead*”. The third phase is for secondary 3 students. All secondary 3 Food and Nutrition students would be engaged in an authentic learning experience with Singapore’s TOUCH Diabetes Society and Singapore Housing and Development Board. These two external partners allow students to reach out to the residents in the neighbourhood through health activities organised. Also, this has been integrated into the learning practices through lesson plans and student activities. The final phase is for Secondary 4 and 5 students. Students who have expressed interest in Food and Nutrition related activities can participate in an apprenticeship opportunity with Sunrice Culinary Institute. With this, students not only promote but sustain healthy habits of students, parents and the community as they apply what they have learnt through the last 3 phases in their school life.

**Title of the programme : “Immersing Nutrition and Food Science (NFS) into the community”**

**1) Summary of the programme:**

Students of Serangoon Garden Secondary School were engaged in various leaning programmes. These students are aged 13 – 17 years old. All students of 13 and 14 years old are involved in “Food and Consumer Education”, a subject that is mandatory. For students of 15 – 17 years old, they are able to make a choice to take “Food and Nutrition” in upper secondary. To plan a roadmap for students to immerse health and nutrition into the community, students of all levels are involved in various programmes as highlighted in the table below.

Level	Programme	Year of implementation
Sec 1	Healthy Lifestyle Camp	2015 – present
Sec 2	Creating online recipes for “Heathy recipes with Singapore Kindness Movement”	2014 – 2015
Sec 3	Collaboration with TOUCH Diabetes Singapore	2015 – present
Sec 4 and 5	Internship at Sunrice Culinary Institute	2015 – present

**2) Background information of reasons why the school created the programme**

In line with the school’s vision of “Critical thinkers and Thoughtful leaders”, the driving force behind this programme is to provide academic and social benefits to youth. Academic benefits such as to promote learning through active participation in service and community experiences, to provide an opportunity for students to use skills and knowledge in real life situations and extending learning beyond the classroom. Social benefits such as increasing awareness and knowledge of community needs in students and inculcating “interpersonal skills” in students.

**3) Objectives/goals of the programme “Immersing Nutrition and Food Science (NFS) into the community”**

The objectives/goals of the programme “**Immersing Nutrition and Food Science (NFS) into the community**” are to:

- Raise level of subject and pedagogical content knowledge
- Identify and understand learning challenges from students’ perspectives
- Formulate goals for students’ learning and long-term development
- Improve quality of available lesson plans/ resources for educators and students
- Promote collaboration for professional development of educators; with the community and other learning institutes.



In contrast to community projects, workshops and seminars that discuss general teaching strategies, educators engaged in active and progressive discussion which allows the teachers to better align teaching to students (e.g. improved students’ engagement), instruction, goals, and subject matter (bringing out 21CC skills).

Through the enhanced programme, our students will be able to:

- experience real work, integrate theory and practice on food and nutrition, and be aware of the skills required in different fields,
- identify and explore career interests, work values and life goals, and
- appreciate the need for continual improvement and lifelong learning in their efforts to achieve academic and career goals.

Our students will be supported both in school and at home:

Parents will be engaged in community programmes to allow them to guide their child through the education and 21<sup>st</sup> CC skills effectively. Our teachers will be equipped with relevant knowledge to guide students in health and nutrition.

**4) Period of time when the programme was started and**

**5) Activities (Actions and strategies of implementation)**

*Table on timeline and programme for implementation of “Immersing Nutrition and Food Science (NFS) into the community”*

Level	Programme	Year of implementation
Sec 1	Healthy Lifestyle Camp	2015 – present
Sec 2	Creating online recipes for “Heathy recipes with Singapore Kindness Movement”	2014 – 2015
Sec 3	Collaboration with TOUCH Diabetes Singapore	2015 – present
	Collaboration with Singapore Housing and Development Board (HDB) for community projects within the heartlands area	
Sec 4 and 5	Internship at Sunrice Culinary Institute	2015 – present

**6) Teaching and Learning approaches that the teachers apply for teaching “Improving health and nutrition”**

Lesson study approach is a key framework that educators focus on with regards to planning Food and Consumer Education lessons prior to collaboration with external partners to value-add to students’ learning. Lesson study is a form of classroom inquiry in which teachers collaboratively plan, teach, observe, revise and share the results of the lesson. A lesson study group usually consists of several teachers who are interested in working together to improve teaching and learning.

To ensure multiple perspectives, a lesson study group should involve optimally three to six teachers. The composition of the team should be determined by teachers’ interests and the focus of the lesson study.

Typically, participants are from the same discipline and often teach the same course.

The objectives of Lesson Study are:

- 1) To raise level of subject and pedagogical content knowledge
- 2) To Identify and understand learning challenges from students’ perspectives
- 3) Formulate goals for students’ learning and long-term development
- 4) Improve quality of available lesson plans/ resources
- 5) Promote collaboration for professional development

Lesson Study encompasses **5-steps**. They are:

- 1) Set Goals , 2) Plan, 3) Conduct Lesson, 4) Analyze and Revise and 5) Reflect

**1. Goal Setting:** The learning goal is the backbone of a lesson and provides the “reason” for teaching and observing it. Teams start by discussing student learning objectives. A lesson study typically focuses on a significant developmental learning goal that encompasses intellectual capacities, habits of mind, and qualities of character. But the lesson can also address immediate academic goals. For example, a NFS lesson that focuses on developing students’ application of coursework skills, which is a broad developmental goal, may also aim to develop students knowledge of diet-related diseases, which is a narrower lesson-specific goal.

**2. Planning:** Our Lesson study team usually begin by sharing how they have taught or would teach the lesson, discussing and debating the merits of different types of class activities, assignments, exercises and so forth. To keep the focus on students’ learning, though, teachers also pool their knowledge on how students in the past have learned or struggled to learn the topic at hand. Once past experiences and personal approaches are on the table, the team can begin to design a lesson that will help students achieve the chosen learning goal.

**3. Lesson Study:** When preparing for the lesson, teams think about how to collect evidence that will help them determine how students learned and their progress towards the learning goal. Teams develop observation

guidelines based on their predictions of student responses and decide what type of evidence will be collected from students.

**4. Analyse and revise:** In this step, one member of the group teaches the lesson, and other members attend the class to observe and collect evidence of students' learning, thinking and engagement.

**5. Reflect:** The group documents the lesson study, record teachers' reflections on the benefits and challenges of the lesson study effort, and considerations for the next cycle

A total of 4 teachers form the Lesson Study group for NFS. Team members meet once a week, with 1 hour as the maximum meeting time. Team members discuss subject matter—the concepts and topics—on which their lesson will be based. This is done in reference to the **school curriculum / syllabus guide by Ministry of Education.**

Learning goals are set based on topics/skills that are particularly difficult for students to learn, or that are especially important in the course or their fields. **2 to 3 Lesson Study meetings** are scheduled prior to when the lesson will be taught to discuss on the merits of different types of class activities, assignments, exercises.

Lesson study has enhanced communication among teachers. Teachers are more reflective and are able to provide critical feedback in a supportive manner. This communicates mutual understanding of goals, teaching practices and students' learning among teachers. As such, there is improvement in students' engagement through designed lessons. The designed lessons also developed 21<sup>st</sup> Century Competencies (21CC) in students, as shown in the survey results.

## 7) **Participation with the community and sharing of school practices to the community and Engagement of Partners**

To value-add to our students' learning in this area, we designed student-centric learning experiences, by establishing partnerships with tertiary institutes, parents/alumni and relevant industries for work attachment programmes (apprenticeship and site visits/learning journey) as well as community experiences.

### Work Attachment programmes (Apprenticeship and Site visits/learning journey)

Partnership with Sunrice Culinary Institute: Targeted at Food and Nutrition students aged 16 – 17 years old, this apprenticeship is a work and study programme where selected Food and Nutrition students are acquired to get a WSQ Certificate in Food and Beverage. The duration of this apprenticeship is 5 weeks long and students are given a reimbursement of \$500 throughout this period. After the training sessions at Sunrice Culinary Institute, students are then given an opportunity to be attached to culinary places such as *SAKAE Sushi, Cathay Cineplex, Hans and Eighteen Chefs*. These are real work places where students share on their Food and Nutrition theory learnt in the classrooms to the community through this apprenticeship programme. This fosters values such as “Self-directedness in active learning; Critical thinking; Communication and Information skills” and “Communication, collaborative and information”, which are desired student outcomes of the 21cc framework in Singapore.

### Community Experiences:

1) Singapore Housing Development Board (HDB), Good Neighbours Project: Since 2015, The Good Neighbours Project (GNP) provides the community with a platform to step forward with their ideas and bring neighbours closer through healthy eating. Every year, through this project, more than 10,000 residents got to know their neighbours better through the healthy activities organised by GNP Teams. Students from Serangoon Garden Secondary School put forth their creative ideas to deepen residents' belonging to their neighbourhoods and communities through a healthy eating sandwich competition. In 2016, **Serangoon Garden Secondary emerged as one of the top 3 Most Outstanding Projects** from the Community and Youth categories. As young and inspiring SGSians, the team's effort for the communities has been greatly recognized via this national platform in creating friendlier and healthier neighbourhoods today.

2) Collaboration with **TOUCH Diabetes** Singapore. Students of 15-year olds facilitated mini workshops for public members to educate them on Diabetes. These mini workshops provide a live simulation of how Diabetes is real and evident. This provides a context for students to apply the skills and link between diet and

health. Students were involved in the curation of recipes for diabetic patients. These recipes would be featured in magazines which are sent to all public hospitals and clinics in Singapore. In turn, this learning opportunity allows students to be concerned citizens as they reach out to the community. This learning opportunity has great impact as our prime minister declared war on diabetes in Singapore. Hence, this learning platform allows students to apply the nutritional knowledge acquired in the classroom to real life context.

### Online platform for sharing

Singapore Kindness Movement (SKM) featured the healthy recipes done up by the students of 14 years old on the media platform which is accessible via <https://kindsville.kindness.sg/> by the public.

Dear Stephen,

On behalf of Singapore Kindness Movement, I would like to thank Serangoon Garden Secondary School for the wonderful collaboration with the Nutrition Food Science Department. Your students has created 3 recipes (attached) based on our animation series, Singa & the Kindness Cubbies. These recipes will be uploaded to our website at [www.kindness.sg/kindsville](http://www.kindness.sg/kindsville) for parents to try out with their children. 5 more recipes will be submitted by end of the year.

I am impressed by the effort the Angela & her students had put in to ensure the end product look like Singa & the Kindness Cubbies as it is quite a challenge. As much as SKM had benefited from this collaboration, I hope your students' learning is also enriched and know more about kindness. We will be meeting Angela to do a review soon.

We hope to continue this meaningful collaboration with the Nutrition Food Science Department. May we also look at collaborating with the CCE team to bring more kindness programmes into Serangoon Garden Secondary School?

Thank you once again for this opportunity.

Best regards,  
Sarah



Sarah Lam  
Associate General Secretary (Education)

School-based platform: The Healthy Sandwich-Making Competition conducted through the healthy lifestyle camp for secondary 1 students, provides an opportunity to learn and try their hands at making healthy. Students are required to exercise their creativity and work in teams to complete their sandwiches, before showcasing their proud works to a panel of judges. Through the competition, students are encouraged to create healthy sandwiches which they are proud of, with the aim of having SGSians share their own customised recipes with their family members and friends, and thereby educating their loved ones on the importance of eating healthily. Students also learn about the nutritional tools e.g. My Healthy Plate and nutritional values of various ingredients used in the sandwiches, which they are also to share with their friends and relatives.

### Courses for sign-ups for sharing

All Food and Consumer Education Educators in Serangoon Garden Secondary School attend workshops and seminars to improve approach of instructional activities support student learning and thinking. Besides, after learning from other institutes, we implement good practices in Serangoon Garden Secondary School. After many rounds of implementation, the programme was recognised and this has honoured our educators' participation in the biennial Food and Consumer Education Seminar where all Food and Nutrition Educators networked and shared with the respective educators on the benefits of partnership, collaboration with external partners in students' education. Our sharing received positive feedback from the participants (reference to annex 1).

### International Sharing

Our Food and Nutrition Educators have been approached by other educators from Hong Kong and Japan to share on good practices of lesson study for Food and Consumer Education and partnerships with external partners.

The sharing in Hong Kong 2015 was titled "Use of ICT to extend students learning and sharing of Food and Nutrition to the community." This conference was held in University of Hong Kong Campus.

The International Conference 2017 was titled "Effective Paradigm of Education to strengthen and promote the value to Home Economics." This conference was held in Campus Innovation Centre, Tokyo.

**8) Engagement of partners**

Our partners engaged are: Singapore Housing Development Board (HDB), **TOUCH Diabetes** Singapore, Singapore Kindness Movement and Sunrice Culinary Institute.

**9) Resources used for implementation**

Besides funding from the various external partners, we also received funding from Ministry of Education SEED fund and Innovation funds

**10) Programme monitoring and evaluation mechanisms**

Serangoon Garden Secondary School conducts Focus-group discussions and surveys to check on the learning outcomes and degree of value-add to the programmes implemented in Serangoon Garden Secondary School

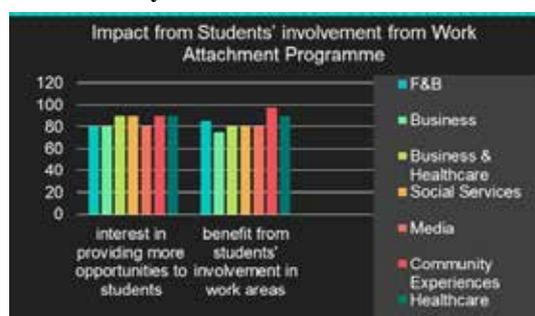
**11) Achievement from school’s health and nutrition programme**

Level	Programme	Achievement from school’s health and nutrition programme
Sec 1	Healthy Lifestyle Camp	Recognition as the most engaging health programme in secondary school
Sec 2	Creating online recipes for “Heathy recipes with Singapore Kindness Movement”	Students were all recognised with a certification of commendation for their community efforts.
Sec 3	Collaboration with TOUCH Diabetes Singapore	
	Collaboration with Singapore Housing and Development Board (HDB) for community projects within the heartlands area	Students were awarded with the “most outstanding youth category” for the community outreach project on Healthy Eating through healthy sandwich making conducted in 2016. They were given a funding of \$1000 to carry out the project last year.  In addition, due to the good work done by students, the following batch of students benefitted from this project. They were given a funding of \$5000 in 2017 instead of \$1000 given in 2016.
Sec 4 and 5	Internship at Sunrice Culinary Institute	Students were recognised with “Best apprenticeship” awards for selected students. Serangoon Garden Secondary

**12) Benefits / impacts / positive outcomes of the programme to students, school and the wider community**

1) Impact to **stakeholders**: Students are able to impact to a large group of public despite their age group. For example, even though lower secondary students are unable to take part in work apprenticeship programmes, they are able to make an impact to the community through online means, e.g. SKM recipes and through sharing of recipes with their parents.

**Survey on the impact on stakeholders through programmes relating to “Immersing Nutrition and Food Science (NFS) into the community”**



The impact by students has a strong correlation with impact on stakeholders. High % of partners has indicated greater interest in providing more opportunities to students. This emphasizes importance of Ministry of Education Minister’s Direction by Ng Chee Meng on providing child with opportunities to discover and develop his strengths and interests. This set of data highlights the possibility of more industry partners playing a more active role in shaping the curriculum and participating in work attachment programmes or collaborating with schools to provide more learning opportunities and platforms.

### Collaboration with external partners

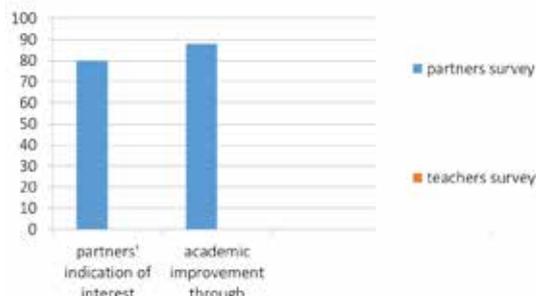


Figure 1: Value-adding to students’ learning through external partnership with TOUCH Diabetes, SKM, HDB and Sunrice

The results in Figure 1 show the following:

Partners have indicated **greater interest in providing more opportunities** to students as they contribute **actively to the community**.

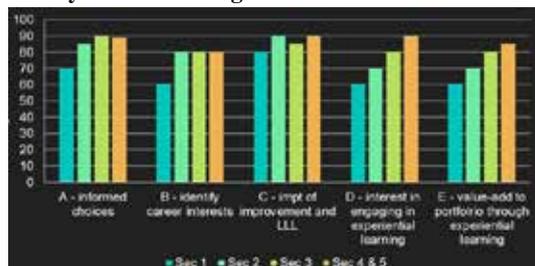
This highlights the possibility of **more industry partners** playing a more active role in shaping the curriculum and participating in providing **more opportunities for collaboration and applied learning**.

The improvement in academic result through applied learning shows that external partnerships has value-added to students’ learning. Through external partnerships, it

provides a context for students to apply the coursework skills acquired and allow them to see the link between diet and health through the application of **subject content knowledge (Food and nutrition)**.

### 2) Impact to students:

#### Survey on “Immersing Nutrition and Food Science (NFS) into the community” by students



Results obtained based on survey conducted in 2016 on 700 students who have participated in SGS’s Programmes relating to “Immersing Nutrition and Food Science (NFS) into the community”

Collaboration with external partners has value-add to our students’ learning through the designed student-centric learning experiences to cater to the diverse interests and needs of our students,

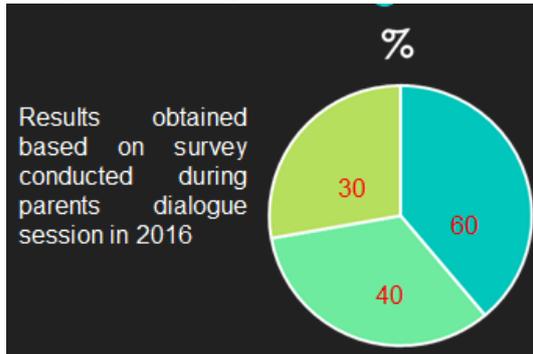
Effectiveness has been reflected in the high % of students who have indicated that the Food and Nutrition / Food and Consumer Education curriculum has helped them to make informed choices that reflect their strengths and to share on healthy living to the community .

The results in aligned to the importance of lifelong learning and continued innovation to stay relevant in the face of rapid technological changes.

Results also reflects a high % of students interest in engaging in experiential learning through work attachment programmes (apprenticeship e.g. Sunrice Culinary Institute) and/ or community experiences (E.g. HDB). This trend is the consistency in which students see the importance from this value-adding to their portfolio and sharing Food and Nutrition Information through participation in work attachment programmes or community experiences.

### 3) Impact to parents:

### Survey on “Immersing Nutrition and Food Science (NFS) into the community” by parents



60% of parents indicated greater confidence and knowledge to support their child through the education and community outreach programmes. Parents have clarity on the support available to prepare Singaporean children through their child through participation in community programmes for parents. This shows the need to include more programmes for parents/guardians as they show interest in participating in such programmes.

4) Impact to school: Through the various programmes planned out for the students, we aim to expose our students to experiential learning of life skills, values as well as 21<sup>st</sup> century competencies for future-readiness. At the same time, this provides them a platform to give back to society and live out our school value of empathy for community impact on healthy living.

### 13) Plan for sustainability and the future

Our future plan is to engage more external stakeholders to collaborate in Community Experiences or Work Attachment Programmes, to build a repertoire of learning experiences. Besides, we strive to encourage students learning of creating. There are currently not enough opportunities to allow Singapore students to create. With more opportunities, in the long run, our students may be groomed to create food products which may address health concerns that arise in the future, this requires further and new partnerships in expanding learning. This includes engaging Trade Associations and Chambers (TACs), public agencies, unions, companies, executives, workers, academics, educators and parents. For e.g. ice cream that lowers blood cholesterol or blood sugar levels. These are possible future plans to advocate health messages.

### 14) Attachments

- 1) Lesson Plans and students worksheets for SKM recipes
- 2) Collaboration with TOUCH
- 3) Sunrice partnership
- 4) Committee school plan for healthy lifestyle
- 5) Schemes of Work

### 15) Photographs

HDB, Sunrice partnership, Touch Community, SKM and Worm Compost



Sunrice Partnership: We have to focus more on applied learning - to integrate classroom learning with real life applications on-the-job, and to encourage students to creatively apply healthy nutritional concepts to practical problems



海山中学学生举办了三文治制作比赛，让居民通过烹饪培养感情。

**Students excellent performance for Good Neighbours Project by HDB was featured in IN Section of The Straits Times (2016)**

### Annex 1



Students reaching out to touch Diabetes Singapore via the diabetic friendly recipes created by 15-year old Food and Nutrition Students

