



# DUNEARN SECONDARY SCHOOL

[www.dunearnsec.moe.edu.sg](http://www.dunearnsec.moe.edu.sg)



Constructing calorimeters to count calories

## APPLIED LEARNING PROGRAMME (ALP):

### 'Makan' on Everyone's Mind!

Dunearnites are strong in the sciences, and the school is one of the few offering the subject Chemistry with Biology. When it came to designing the school's Applied Learning Programme, the teachers chose to focus on a topic that leverages students' strengths: Food Science and Technology

Food is something all students and their parents can relate to, explains Ms Aileen Tan, HOD Science. Furthermore, there are many courses and exciting careers in the food, chemical as well as pharmaceutical industries, which students can consider embarking on in the future.

The first tier programme captures Secondary 1 students' attention with lots of hands-on activities such as marshmallow making and building a simple calorimeter.

In Secondary 2, students look into Arduino (open-source code) programming and develop their own food projects. The scientific principles mesh well with core academic knowledge and the communications and presentation skills mirror our student development programmes.

Most importantly, the students really like it because in certain sessions, they get to taste what they've made!

The second tier activities involve smaller groups, particularly the school's 'Science Ambassadors', who show greater aptitude and interest – about 30 to 40 students in total.

Upper secondary students who show greater interest attend industry talks by corporations such as Fraser & Neave, where they will discuss the work that its food scientists do,

and attend Advanced Elective Modules (AEM) at Singapore Polytechnic.



Future farmers in the making? A learning journey to Kin Yan Agrotech, Lim Chu Kang Agrotechnology Park



Climbing the heights of ALP! Shell STEM Youth Innovation Challenge 2016 Champions

## Structure of the ALP Programme

### Tier 1 (Sec 1/Sec 2)

- Basic ICT training
- Communication and presentation skills
- Hands-on projects (e.g. marshmallow and ice-cream making, calorimeter making, energy-bar making)
- Arduino programming

### Tier 2 (Sec 2 onwards)

- Learning journeys
- Industry talks (by Fraser & Neave)
- AEM at Singapore Polytechnic
- Science innovation competitions





Helping the Pioneer Generation navigate the world of mobile apps



Food distribution and outreach with Mr Patrick Tay Teck Guan, Adviser for Boon Lay GRO

### LEARNING FOR LIFE PROGRAMME (LLP):

## Learning the Art of Leading through Giving

Dunearnites are trained in leadership principles in order to form leadership habits and attitudes. For the upper levels, according to the programme teacher-in-charge, "Our students learn how their efforts can benefit the larger community around them - seeing global leadership with a local angle; such as discovering how local communities can address global concerns or issues like meeting the threat of deforestation by planting more trees in the neighbourhood."

The lower secondary students are involved in supporting our neighbour, the Bukit Batok Home for the Aged, with the objective of bringing happiness by offering a listening ear and providing entertainment through performances and playing games with the residents. This long-term engagement programme rosters classes on a rotational basis to engage the elderly over 6 months in a year.

In developing Sec 3s as community youth leaders, Dunearn works with the South West Community Development Council (SWCDC) and community partners such as REACH Youth Powerhouse.

After discussions guided by the teachers, and fronted by student councillors and Sec 3 CCE leaders, Dunearn 'adopted' a block of rental flats. Students, after they have been trained in interview techniques, conduct a neighbourhood needs survey exercise. They return with reports on what each group of residents need, and the classes decide on how they can help. This year, a food drive was conducted for the benefit of the neighbouring residents. After initiating a needs analysis to find out what the residents' needs were, the students planned the logistics of how to collect and distribute various foodstuffs to the residents.

Another activity our Sec 3 students are involved in is the Intergenerational Learning Project. Students are paired with senior citizens in the neighbourhood to serve as guides to the world of smartphone and mobile applications, and assist them to install and use apps such as the SingHealth Health Buddy app.

“ We wanted to give [our Sec 3s] a meaningful activity at the start of the year. We highlighted to SWCDC that the hamper-giving should be extended to the flats that we are 'adopting'. We will have a year-long programme with them. ”

Ms Bai Yi rang, LLP Teacher

WEST 2019 stories

### RETHINKING LEARNING:

## Flipped Classrooms and Microsites

Dunearn's science teachers have flipped classrooms – but not in the way that you might think! They issue students reading materials to prepare for class the following day, and when in class, they work through exercises to ensure students demonstrate their understanding of the material. This is popular with students, despite the extra 'homework', as more classroom time can be allocated to applying and clarifying concepts with their subject teachers.

Several science teachers run micro-websites with teachers' notes on them. This approach is very popular with the students too, as it gives them access to all the materials for their lessons, all the time.

“ We get to understand the context [of the lesson] before we get to class. Then in class, we have more time to work on the exercises and try out questions where our teachers can guide us... ”

Jerald Giam, Sec 4

“ You can read microsite information anywhere! I've seen my friend glued to his phone on the train; 'I have a test tomorrow,' he said. ”

JAMIE ONG, Sec 5





Sharp dance moves brighten up all the school's celebrations



The diversity and dedication of our dancers make all the difference



Our dancers putting it together for a knock-out performance

**CO-CURRICULAR ACTIVITIES (CCA):**

## Dancing Our Way Into Audiences' Hearts

Mr Keith Koh, HOD PE & CCA, laughs as he repeats himself to say that modern dance is surprisingly popular in Dunearn Secondary.

The traditional sports, of course, attract the most attention. But modern dance was one of the most-requested CCAs amongst students, with a sizeable increase in numbers over recent intakes.

The current modern dance group is 52 strong, with 10 boys in the ranks.

When asked for his theory about why modern dance is so popular with students, Mr Koh quipped that K-Pop is 'hot' with many young people these days.

He added that other good reasons are that its members are strongly committed and spread their love of the activity via word-of-mouth.

Last but not least, they take every opportunity to perform for the school, showcasing their passion and skills.

**Other popular CCAs include:**

- Basketball
- Football
- Table Tennis
- Malay Dance
- Guzheng Ensemble
- Choir

“ The group has had high visibility with a performance for SG50, speech days and at concerts, and will be competing at SYF. It has consistently been recognised with the SYF award for accomplishment. ”

Mr Keith Koh, Hod Physical Education And Co-Curricular Activities

**DID YOU KNOW:**

## We Shine Bright Like A Diamond

Dunearn's school crest includes a diamond, and classes are named Pearl, Opal and Ruby after precious gems to carry on the theme that students are just in need of some polishing to truly shine!

“ Our classes are named after gemstones. Our school uses gemstones like a metaphor, that we're 'precious' students. Not cringey, really, we'd rather have it than 4E2, 5N1! ”

Jamie Ong, Sec 5





## AT A GLANCE

### Address

21 Bukit Batok West Avenue 2,  
Singapore 659250

### Phone Number

6565 3692

### School Website

[www.dunearnsec.moe.edu.sg](http://www.dunearnsec.moe.edu.sg)

### School Vision

Lifelong Learners, Caring Leaders.

### How to get there

#### Nearest MRT Stations

Bukit Batok, Bukit Gombak

#### Bus Services

160, 180, 187, 188, 188E, 188R, 197, 868, 945,  
947, 985

### Distinctive Programmes

#### Applied Learning Programme:

Food Science and Technology

#### Learning for Life Programme:

Community Youth Leadership

### Subjects Offered

Additional Mathematics, Art, Biology  
Chemistry, Chinese, Computer Applications,  
Design and Technology, Elements of Business  
Skills, English Language, Food and Nutrition,  
Humanities (Social Studies, Geography),  
Humanities (Social Studies, History), Literature  
in English, Malay, Mathematics, Physics,  
Principles of Accounts, Science (Chemistry,  
Biology), Science (Physics, Chemistry)

### CCAs

#### Physical Sports:

Basketball, Football, Table Tennis

#### Uniformed Groups:

National Cadet Corp, National Police Cadet  
Corp, St. John Brigade, Scouts

#### Visual and Performing Arts:

Band (Symphonic), Guzheng Ensemble,  
Modern Dance, Choir

#### Clubs and Societies:

English Literary Drama Society, Malay Cultural  
Society, AV Multi-media Club, Library Club,  
Photography Club, Infocomm Club

### SCHOOL BUILDING:

## The Sun Rises On Our New Campus!

**D**o you know that our alumnus, Ms Huang Caijin, was instrumental in the design of our spanking new school building?

In 2018, Dunearn Secondary School moved to our spacious and upgraded Bukit Batok campus, which was thoughtfully designed by Ms Huang, an architect, along with her team of consultants. The site's purposeful interplay between physical spaces and the natural environment enhances the learning experience for our students.

The upgrade retains much of the iconic elements of the former school building, such as its distinctive original facade. These touchstones of our heritage will serve to inspire future generations of Dunearnites.

Two beautiful sculptures that were designed and built by our artist alumni were carefully preserved during the recent construction, and proudly reinstated in prominent areas in the school, preserving the continuity of Dunearn's rich history.

Our students can now look forward to enjoying spacious classrooms, library and laboratories, a brand new Multi-Purpose Hall for games and performances, new physical training facilities, varied and exciting learning spaces, and a competition-ready Indoor Sports Hall!

The campus will serve the needs of our 21st century learners in this new era of technological innovation and rapid educational development.

### SCHOOL SONG:

## Our Dunearn Journey, Captured In Song

**M**usic teacher Faith Khoo, a long-serving member of staff, was tasked to write the new school song when the school moved to Bukit Batok in 1993.

She recalls that the school incorporated phrases from various staff members, including the Principal and Vice-Principal of the school at that time.

'As I enter Dunearn's gates, my heart swells up with pride and hope...' was from the then-VP, Mr Goh Soon Guan.

'This is where I work and play' was from another senior teacher.

And 'Endure all pressures, overcome all obstacles' was from the Principal at the time, Miss Dorothy Tay.



“ The first words of the first verse are 'As I enter...'. The last verse has '...From Dunearn I emerge...' They trace the students' journey. ”

Miss Faith Khoo, Music and English teacher for almost 30 years.

