

# Education in Singapore

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### Overview



The mission of the Ministry of Education is to mould the future of our nation, by moulding the people who will determine the future of the nation. The vision for meeting the challenges for the future can be summed up as Thinking Schools, Learning Nation - a vision which will ensure that Singapore will be a nation of thinking and committed citizens who are capable of contributing towards Singapore's continued growth and prosperity.

The education system is flexible and caters to every child's abilities, interests and aptitudes so as to help each develop to his fullest potential. It focuses on the development of human resources to meet Singapore's need for an educated and skilled workforce. It also facilitates the inculcation of sound moral values to serve as cultural ballast in the face of rapid progress and change.

A child in Singapore undergoes at least 10 years of general education. This comprises 6 years of primary education, which is compulsory with effect from 1 January 2003, and 4 years of secondary education.

Our education emphasises literacy, numeracy, bilingualism, physical education, civics and moral education, and creative and independent thinking. The bilingual policy requires each child to learn English and his Mother Tongue. This enables children to be proficient in English, which is the language of commerce, technology and administration, and their Mother Tongue, the language of their cultural heritage. Computer-based programmes are also introduced in schools to promote independent learning and enhance higher order thinking skills in pupils.

# The Education System







## **Primary Education**

At the primary level, pupils go through a 4-year foundation stage, from Primary 1 to 4, and a 2-year orientation stage from Primary 5 to 6.

All pupils at the foundation stage follow a common curriculum that provides them with a firm foundation in English Language, their Mother Tongue and Mathematics. Also included in the curriculum are subjects such as Art & Crafts, Civics and Moral Education, Music, Social Studies and Physical Education. Science is introduced from Primary 3 onwards. Project Work is conducted during curriculum time and is not formally assessed as an examination subject.

To maximise their potential, pupils are formally streamed according to their learning ability at the end of Primary 4. All pupils then advance to the next stage of primary education, the orientation stage. At the orientation stage, pupils are channelled to one of three language streams, namely EM1, EM2 and EM3, according to their abilities.



#### **TYPES OF STREAMS**

#### **EM1 Stream\***

For pupils who do very well in English Language, Mother Tongue and Mathematics at the end of Primary 4. Pupils will learn Higher Mother Tongue, in addition to English Language, Mathematics and Science.

#### EM2 Stream\*

For the majority of pupils. Pupils will learn English Language, Mother Tongue, Mathematics and Science.

#### EM3 Stream

For pupils less able to cope with Languages and Mathematics. Pupils will learn Foundation English, Basic Mother Tongue and Foundation Mathematics. They will not be examined in Science. However, those who do well in the Primary 4 Mother Tongue Language examination will be allowed to offer Mother Tongue at the standard level. At the end of Primary 6, all pupils sit for the Primary School Leaving Examination (PSLE), which assesses their abilities for placement in a secondary school course that suits their learning pace and aptitude. Pupils who obtain the necessary standards are then admitted to the Special, Express or Normal stream in secondary schools.

FOUNDATION STAGE	SUBJECTS
Primary 1 - 4	English Language, Mother Tongue, Mathematics, Science*, Art & Crafts, Civics & Moral Education, Music, Physical Education and Social Studies
	*Science is taught from Primary 3 onwards.
	Health Education topics are included in English language lessons.
ORIENTATION STAGE	SUBJECTS
Primary 5 - 6	English Language, Mother Tongue, Mathematics, Science, Art & Crafts, Civics & Moral Education, Health Education, Music, Physical Education and Social Studies
Primary 5 - 6	Art & Crafts, Civics & Moral Education, Health Education,

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\* From end-2004, the distinction between the EM1 and EM2 streams will be removed and schools will have the autonomy to decide on how best to band their pupils by ability, in ways that add the most educational value.

## **Secondary Education**

At the secondary level, students have the choice of 3 courses (Special/Express/Normal) designed to match their learning abilities and interests. They undergo 4 to 5 years of secondary education with different curricular emphases. The majority of students undergo the Special course or Express course while the rest enter the Normal course.

In the Special/Express courses, all students follow a 4-year programme leading to the Singapore-Cambridge General Certificate of Education Ordinary (GCE 'O') level examination.

Students in the Special/Express courses offer 7 to 8 subjects at the GCE 'O' level examination. Those with exceptional academic ability may offer a ninth subject. The following subject combinations provide a balanced curriculum:

- 2 languages (English Language and Mother Tongue)
- Combined Humanities and an option to take up another Humanities subject (chosen from Literature, History and Geography)
- Mathematics and an option to take up Additional Mathematics as an elective subject
- At least 1 science subject (chosen from Physics, Chemistry, Biology and Combined Sciences options)

NORMAL

SPECIAL / EXPRESS COURSES	SUBJECTS AVAILABLE
Secondary 1 & 2 (Common Curriculum)	English Language, Mother Tongue*, Mathematics, Science, History, Geography, Literature in English, Design & Technology, Home Economics, Visual Arts, Civics & Moral Education, Music and Physical Education
Secondary 3 & 4	English Language, Mother Tongue*, Mathematics, a Science subject, Combined Humanities, Civics & Moral Education, Music, Physical Education and 2 - 4 Electives
Electives	Additional Mathematics, History, Geography, Literature in English, Biology, Physics, Chemistry, Combined Science options, Chinese/Malay/Tamil Literature, Art & Design, Design & Technology, Food & Nutrition, Music, Principles of Accounts and Religious Knowledge options
	From Secondary 1-4
	Additional Language options** - French, German, Japanese, Chinese (Special Programme), Malay (Special Programme)
	Art Elective Programme, Music Elective Programme (at selected schools)

Project Work is conducted during curriculum time and is not formally assessed as an examination subject.

- Students can opt to study Mother Tongue (Malay/Chinese/Tamil) at either the standard, higher or Syllabus B levels depending on their ability and eligibility.
- \*\* For students who meet the eligibility criteria

#### (ACADEMIC) COURSE **SUBJECTS AVAILABLE** Secondary 1 & 2 English Language, Mother Tongue\*, Mathematics, (Common Curriculum) Science, History, Geography, Literature in English, Design & Technology, Home Economics, Visual Arts, Civics & Moral Education, Music and Physical Education Secondary 3 - 5 English Language, Mother Tongue\*, Mathematics, Combined Humanities, Civics & Moral Education, Music, Physical Education and 2 - 4 Electives Electives History, Geography, Literature in English, Combined Sciences options, Art & Design, Design & Technology, Food & Nutrition, Music^, Principles of Accounts, Additional Mathematics, Computer Applications^, Elements of Office Administration and Religious Knowledge options

Project Work is conducted during curriculum time and is not formally assessed as an examination subject.

\* Students can opt to study Mother Tongue (Malay/Chinese/Tamil) at either the standard or Syllabus B levels depending on their ability and eligibility.

^ Offered only at selected levels

#### NORMAL (TECHNICAL) COURSE SUBJECTS AVAILABLE

Secondary 1 & 2 (Common Curriculum)	English Language, Basic Mother Tongue, Mathematics, Science, Computer Applications, Home Economics, Social Studies, Technical Studies, Civics & Moral Education, Music, Physical Education and Visual Arts
Secondary 3 & 4	English Language, Basic Mother Tongue, Mathematics, Computer Applications, Civics & Moral Education, Physical Education, Music and 1 - 3 Electives
Electives	Art & Design, Elements of Office Administration, Food & Nutrition, Science and Technical Studies

Project Work is conducted during curriculum time and is not formally assessed as an examination subject.

In the Normal course, students offer either the Normal (Academic) course or the Normal (Technical) course, both of which lead to the Singapore-Cambridge General Certificate of Education 'Normal' (GCE 'N') level examination at the end of 4 years. Students in the Normal (Academic) course will offer academically biased subjects while those in the Normal (Technical) course will follow a curriculum with a technicalvocational bent. After the GCE 'N' level examination, students who satisfy the requirements go on to a fifth year of study (5N), where they will sit for the GCE 'O' level examination at the end of the year. Based on their GCE 'O' level results, 5N students can proceed to junior colleges/centralised institute, polytechnics or technical institutes. An alternative for students who do not qualify for 5N is technical and vocational education at the Institute of Technical Education.

Students in the Normal (Academic) course offer 6 to 8 subjects in the GCE 'N' level examination while students in the Normal (Technical) course offer 5 to 7 subjects in the GCE 'N' level examination.





# **Pre-University Education**

#### Junior Colleges/Centralised Institute

Upon completion of their GCE 'O' level examination, students can apply for entry to a junior college for a 2-year pre-university course, or a centralised institute for a 3-year pre-university course. Admission is based on a points system computed from the aggregate of the student's GCE 'O' level results.

At the end of the pre-university course, students sit for the Singapore-Cambridge General Certificate of Education 'Advanced' (GCE 'A') level examination.

The curriculum for pre-university students comprises 2 compulsory subjects, General Paper and the Mother Tongue, and a maximum of 4 GCE 'A' level subjects.

They also offer Project Work, a curricular programme designed to provide students with opportunities to explore the inter-connectedness of subject-specific knowledge. Project Work aims to enable students to apply creative and critical thinking skills, improve their communication skills (both oral and written), foster collaborative learning and develop self-directed inquiry and life-long learning skills. Students are formally assessed on both process and product. Project Work counts towards local university admission from 2005 onwards.

COURSE OF STUDY	SUBJECTS AVAILABLE
Science	Mathematics, Further Mathematics, Physics, Chemistry, Biology, Economics, Computing, English Literature, Geography, History
Arts	Mathematics, English Literature, History, Geography, Economics, Theatre Studies and Drama, Art & Design, Music
All Courses	Project Work*, Mother Tongue**, General Studies in Chinese, French, German, Japanese, Civics and Physical Education
	Management of Business and Principles of Accounting are only offered in the Centralised Institute.
	* Project Work is conducted during curriculum time and is formally assessed as an examination subject.
	** Students can opt to study Mother Tongue (Malay/Chinese/Tamil) at either the standard, higher or Syllabus B levels depending on their ability and eligibility.
Elective Programmes	Art, French, German, Japanese, Higher Malay, Higher Chinese, Music
	These elective programmes, particular to selected colleges, may be offered in place of the fourth 'A' Level subject in any subject combination.



### **Alternative Routes**

To cater to the varied talents and aptitudes of students, there are different routes in the junior college/upper secondary education landscape that students can take. The following programmes and systems are available:

#### **Integrated Programme**

The Integrated Programme spans secondary/upper secondary and junior college education and is for clearly university-bound secondary students who can benefit from a less structured environment. Students on this programme can proceed to the pre-university level without taking the GCE 'O' level examination. They will engage in broader learning experiences to develop their capacities for creative and critical thinking, and leadership. Selected schools offer the programme.

### **Specialised Independent Schools**

The Specialised Independent Schools cater to students with talents in specific fields, e.g. the arts, sports, mathematics and science. These schools determine their own curriculum and programmes to develop the special abilities of children. The Singapore Sports School, which offers a secondary education, started with its pioneer batch of students in January 2004. The NUS High School of Mathematics and Science, which will start in January 2005, offers a 6-year education from Secondary 1 that caters to students gifted in mathematics and science. A Specialised School for the the Arts will be established in 2007.

#### **Alternative Curricula and Qualifications**

In line with providing greater diversity of choice in education routes, selected schools can offer alternative curricula and qualifications so long as these are internationally recognised and enable students to progress to further education. For example, one school has chosen to offer the International Baccalaureate (IB) for its students.





Courtesy of NUS

### **Post-Secondary Education**

#### Institute of Technical Education

The Institute of Technical Education (ITE) is a postsecondary institution which equips secondary school leavers and working adults with technical skills and knowledge to meet the manpower needs of the various sectors of industry. ITE provides full-time institutional training and traineeship programmes for school leavers as well as Continuing Education and Training (CET) programmes for workers.

More information on ITE can be found at www.ite.edu.sg

#### **Polytechnics**

Singapore Polytechnic, Ngee Ann Polytechnic, Temasek Polytechnic, Nanyang Polytechnic and Republic Polytechnic have been set up to ensure a broad-based training for students inclined towards practice-oriented studies at diploma level.

Geared towards people with 'O' and 'A' level qualifications, as well as graduates from the Institute of Technical Education, the 5 polytechnics offer a wide range of courses such as engineering, business studies, accountancy, maritime studies, mass communications, nursing, biotechnology, chemical engineering, digital media design, applied science, product design and infocommunications.

More information on the polytechnics can be found at:

Singapore Polytechnic:
Ngee Ann Polytechnic:
<b>Temasek Polytechnic:</b>
Nanyang Polytechnic:
<b>Republic Polytechnic:</b>

www.sp.edu.sg www.np.edu.sg www.tp.edu.sg www.nyp.edu.sg www.rp.edu.sg

#### Universities

There are currently 3 universities in Singapore: the National University of Singapore (NUS), the Nanyang Technological University (NTU) and the Singapore Management University (SMU).

NUS, whose roots date back to 1905, is a comprehensive university offering courses in major disciplines like the sciences, engineering, computing, law, humanities, medicine and social sciences. As recommended by the Committee to Review the University Sector and Graduate Manpower Planning in 2002, NUS will be transformed into a multi-campus university system. On 27 June 2003, it signed a Memorandum of Understanding to collaborate with Duke University on the establishment of a Graduate Medical School.

NTU's roots date back to 1981 when it was set up to provide facilities for tertiary education and research in engineering and technology. It has since opened schools in other disciplines namely, business, communication & information, biological sciences and humanities & social sciences. It will further establish two new schools in the physical sciences, and design and media to become a full-fledged comprehensive university. The National Institute of Education is an autonomous institute within NTU that offers initial teacher training as well as in-service teacher training programmes.

SMU was established in 2000 to provide more tertiary opportunities in business and management. It currently offers degree programmes in Business Management, Accountancy, Economics, Social Sciences and Information Systems Management. Although SMU is constituted as a private university, it receives substantial public funding for its operations and development.

The three universities also offer research and scholarship opportunities to postgraduate students in various disciplines.

More information on the institutions can be found at:

National University of Singapore: Nanyang Technological University: National Institute of Education: Singapore Management University: www.nus.edu.sg www.ntu.edu.sg www.nie.edu.sg www.smu.edu.sg







### **Other Information**

#### **Co-Curricular Activities**

Apart from the formal school curriculum, pupils participate in co-curricular activities (CCAs), which provide healthy recreation and instil self-discipline, teamwork and confidence in the pupils. The character development and physical growth of each child is hence provided for.

There is a wide range of CCAs in our schools. Pupils may choose from a variety of sports and games such as track and field, basketball, tennis or uniformed organisations such as the Red Cross Society and the National Police Cadet Corps. They can, alternatively, opt for a cultural activity such as the ethnic dance group or the drama club. Students can also participate in clubs and societies like the Photographic Society, the Computer Club and the Gardening Club.

Pupils are introduced to CCAs at Primary 4 and participation is voluntary. At secondary level, they must participate in at least 1 core CCA.

Schools compete in a number of co-curricular events at the zonal and national level each year. These include sports events such as the Inter-School Cross Country Championships, and the National Track and Field and Swimming Championships. The Singapore Youth Festival is an annual event that showcases the creativity and talent of Singapore students through drama presentations, choral singing, an art and crafts exhibition, uniformed group events and sports events.

#### **School Fees and Miscellaneous Fees**

Pupils at primary level do not have to pay school fees. They only pay miscellaneous fees, which go to their respective schools to help cover the cost of equipment and special programmes for the benefit of the pupils. Students at secondary and pre-university levels pay subsidised school fees as well as miscellaneous fees.

#### **School Facilities**

All schools are equipped with facilities to provide students with a balanced education. Schools have well-stocked libraries to promote reading and the discipline of self-study. They also have special rooms such as science laboratories, art rooms, music rooms, media resource rooms and computer laboratories. Other facilities available include basketball and volleyball courts and multi-purpose halls. Junior colleges are equipped with tennis and squash courts, and their lecture theatres are fitted with sound systems and multimedia projection facilities.

#### **The School Year**

The school year consists of 4 terms of 10 weeks each, beginning 2 January. There is a 1-week vacation between the first and second terms and another between the third and fourth terms. There is a 4-week break in the middle of the year and a long vacation of 6 weeks at the end of the year.

#### **The Edusave Scheme**

The Government started the Edusave Scheme to maximise opportunities for all Singapore children. The Scheme rewards students who perform well or who make good progress in their academic and non-academic work, and provides students and schools with funds to pay for enrichment programmes or to purchase additional resources. The Edusave Endowment fund is built up from Government contributions.

#### **Education Budget**

With an annual budget of about \$6 billion, MOE employs about 24,900 teachers in schools and provides education for about 530,000 students in 354 schools (174 primary schools, 160 secondary schools, 3 full schools and 17 junior colleges/ centralised institute) and about 119,000 students in 9 post-secondary educational institutes.

