INTRODUCTION

- Gifted students need differentiated educational opportunity.
- When advanced skills exist and can be identified, they should be nurtured.
- Specific, individual, student plans are made to provide educational challenges.
- Gifted students are generally eager to move faster than their grade peers and they do so with ease and pleasure.
- Accelerated progression is only one of many strategies that the College may employ to respond to the academic and social needs of gifted students.
- Accelerated progression involves the promotion of a student to a level of study beyond that which is usual for their age.
- BOSTES policies relating to accelerated progression focus on such issues as:
  - Demonstrating the achievement of all Board Syllabus outcomes; and
  - Meeting the requirements of the secondary credentials.
- Decisions about acceleration of students seeking BOSTES credentials will be made by the College Principal within BOSTES guidelines.
- BOSTES does not have to be informed where accelerating students are progressing only one year ahead of their peer cohort.
- BOSTES must be informed when the acceleration proposed is to be two or more years ahead of the student’s present cohort and is likely to lead to early entry for the secondary credentials.

GIFTEDNESS AND TALENT

DEFINITION

**GIFTEDNESS**: according to Gagné, giftedness is the potential to perform at a level considerably superior to one’s age-peers in one or more domains of ability.

**TALENTED**: is defined as significantly superior achievement or performance in one or more fields of human performance.

CHARACTERISTICS OF THE GIFTED AND TALENTED

- ‘Giftedness’ implies an ‘exceptional’ ability well beyond the level typical of age-peers.
- Some typical attributes of gifted mathematics students:
  - An ability to discuss complex ideas and concepts;
  - Quick mastery and recall of factual information;
  - The ability to work independently, to be self-critical, and to strive for perfection;
  - The ability to apply learning and knowledge from one situation to another;
  - The ability to grasp relationships and principles, and draw sound generalisations;
  - Initiation of their own activities and absorption in them, with little external motivation; and
The ability to relate well to older students/adults and enjoy learning from them;

- Core characteristics:
  - A rich memory storehouse;
  - Intense curiosity;
  - Reflectivity;
  - Openness to experiences;
  - An ability to make relationships, generalise, and abstract;
  - An ease and speed of problem solving;

**IDENTIFYING THE GIFTED AND TALENTED**

- It is unlikely that gifted students will reach their maximum potential without the provision of specialised, individualised educational provisions that are designed and implemented to foster the enhancement of their truly exceptional abilities and talents (Silverman, 1989; Tannenbaum, 1991).
- It is important that gifted and talented students are recognised early and challenged to their full capacity in the most appropriate way.
- A balance of objective and subjective approaches is most appropriate for the assessment of the gifted and talented. These may include some or all of the following:
  - Professional observation of performance;
  - Year 5, Year 7 and/or Year 9 NAPLAN numeracy results. The following guideline should apply:
    - Year 5 Numeracy achievement – Band 8
    - Year 7 Numeracy achievement – Band 9
    - Year 9 Numeracy achievement – Band 10
  - Teacher-devised tests;
  - Parent observation;
  - Peer observation;
  - Standardised achievement tests e.g. PAT Maths (off-level) test;
  - Tests of cognitive/intellectual ability;
  - Checklists of traits and characteristics;
  - Cumulative school history;
  - Anecdotal evidence;
  - Interviews;
  - Interest surveys.
- In the school setting, the student must be considered as a ‘whole’ student and be socially and emotionally ready for acceleration, as well as, intellectually advanced. Care should be exercised not to build up excessive expectations from grade advancement which would make the student feel that they are a failure if it does not go well. Variables other than student readiness are involved in accelerated progression.

**OPTIONS FOR PROVIDING FOR THE GIFTED AND TALENTED**

- ENRICHMENT
- EDUCATIONAL OPTIONS
- LATERAL EXTENSION
- SPECIALIST CLASSES
- MENTOR PROGRAMS
- ACCELERATION
FLEXIBLE PROGRESSION

- FLEXIBLE PROGRESSION – a means by which each individual student, as far as possible, is able to progress through the years of schooling according to their achievement, capacities and needs.
- It is generally recognised that there should be a degree of individualisation of teaching programs for each student or at least the students should be grouped in relation to the level of the work they are undertaking.
- In each class there might well be 4 or 5 groups with at least one of these working beyond the others.
- In secondary schools it is also possible to employ alternative timetabling arrangements such as vertical grouping, semesterisation (100 hours indicative time), extension classes outside timetabled lessons (flexible grouping) or acceleration.

WITHIN EXISTING CLASS STRUCTURES

- Use of group work and/or special programs for individual students – the differentiated curriculum delivery.
- Team teaching by the joining of two or more classes into one grouping with two or more teachers working with the larger group.
- Giving of ‘extension’ work to the more capable students.
- The use of ‘contracted’ learning units.

VERTICAL GROUPING

- This involves significant variations to the conventional timetable.
- Different student from different Year groups are timetabled to be taught for particular courses.
- Classes are not based on age but on the content of the courses offered.
- It enables younger, gifted and talented students to work with older students of a similar intellectual and emotional age.
- Vertical grouping is, in many schools, combined with a ‘unitised’ or ‘semesterised’ curriculum. Sometimes called Vertical Semester Organisation (VSO).

SEMESTERISATION

- ‘Semesterisation’ is generally regarded as applying to any system of timetabling that is based on courses that run for less than the full school year.
- Courses usually run for 20 weeks but could also apply to courses of 15 or even 10 weeks.
- This type of curriculum delivery requires careful ‘tracking’ of students, detailed recording of students’ individual progress and needs to emphasise the individual student at its centre.

FLEXIBLE GROUPING

- Flexible grouping places emphasis in the school’s structure on the grouping of students as they work through ‘units’ of work.
- Central to this organisation is the allocation of students to Base Groups used for pastoral care and/or for course and progress counselling.
- Each student’s timetable would be in three parts: Base Group sessions, Unit Workshops and Study Time e.g. Dalton Plan at Ascham School.
- This type of organisation is similar to a distance education mode of delivery, but applied at the school level.
• While units may include a great deal of individual work, they would also require group interaction, specific teacher demonstration, and teacher-led explanation and discussion.
• Study time allows students to work at their own rate through those aspects of the units that are not included in the workshop sessions.
• Study time needs to be clearly structured and should be an integral part of the unit.

ACCELERATED PROGRESSION MATHEMATICS

• BOSTES views accelerated progression as part of the wider process of flexible progression.
• Acceleration permits a limited number of students to move through content at a faster rate never omitting to complete all course outcomes.
• Acceleration should apply to a very small number of high ability students – the outstanding and the exceptional.

GENERAL PRINCIPLES

• Accelerated progression is a readily available educational alternative if based on a comprehensive assessment of the readiness of the individual students and their attainment of defined outcomes.
• If the student has demonstrated an outstanding level of achievement of the outcomes, provided all the important learning that may be expected has been achieved. This means that syllabus outcomes/content are/is to be compressed not omitted.
• This model also depends upon the students being socially and emotionally ready for advancement, and that lateral extension would not be sufficient for these same students.

LIKELY SOCIAL AND EMOTIONAL OUTCOMES OF ACCELERATION PROGRAMS

• The programs should improve the motivation, confidence and scholarship of gifted and talented mathematics students.
• The programs should prevent the development of habits of mental laziness.
• The programs should allow gifted and talented students access to older mathematics students who are more likely to share their abilities and interests.
• The programs need to enhance the students’ self-esteem in a positive environment.
• The students should be able to handle anxiety and perseverance at reasonably accelerated levels without evidence of stress or obsessional behaviour.
• There should be a readiness by the students to separate from their friendship groups though this may not be an actual or full separation. This element is concerned with the conflicting psychosocial needs of intimacy and achievement:
  
  advanced emotional and social development VS social acceptance of class mates and teachers

• Social and general self-esteem can be extremely low in gifted students without access to other gifted young people who share their abilities and interests.
MAKING DECISIONS ABOUT ACCELERATED MATHEMATICS PROGRESSION

- Accelerated progression of an appropriate student should be possible at any stage during their formal schooling.
- Decisions are made by the College Principal in consultation with relevant staff, outside professional supporters, the student and the parents/carers of the student.
- If a class or group is to be accelerated, each student within the class/group should be considered individually and comprehensively.
- While academic attainment and capacity are the principal criteria for acceleration, they are not the only ones. Regard should also be paid to the student's emotional and social development and general wellbeing.
- When considering the student's level of maturity and suitability for acceleration, the following additional factors should be borne in mind in considering all-round intellectual and emotional readiness:
  - The student's age;
  - Full subject pattern/commitment of the student;
  - The student's extracurricular and out-of-school activities; and
  - The interpersonal relationships of the student.

TYPES OF MATHEMATICS ACCELERATION PROGRAMS

- Content acceleration to the level of the student's abilities.
- Thoroughly planned, relevant mathematics enrichment.
- Guidance in selected courses and directions.
- Special instruction to work with other students of a similar level of ability.
- Opportunity to work with mentors in mathematics.
- Ability grouping allowing students to advance at their own pace with others of similar ability.

CHOOSING APPROPRIATE ACCELERATION PROGRAMS IN MATHEMATICS

- Where a student is of such high mathematics ability attention is required over and above what is reasonable to expect from the regular teaching, there is an obligation to provide this.
- Grade advancement decisions should be based on a comprehensive individual student assessment plan.
- The needs of the 'whole' child must be taken into account in any decision to accelerate in mathematics.

SELECTION OF STUDENTS FOR ACCELERATED PROGRESSION IN MATHEMATICS

- Accelerated progression is a placement strategy available only to appropriate students as determined by the College Principal, drawing upon the advice of others and BOSTES guidelines.
- Acceleration is a strategy appropriate for outstanding or exceptional mathematics students.
- The great majority of mathematics students will progress with their enrolment cohort in the usual way, enjoying enrichment and extension activities according to need.

THE BASIS FOR SELECTION

- In selecting appropriate students for accelerated progression, a wide range of factors need to be considered including:
  - Academic capacity;
o Attendance record;
o School performance in all subjects not just in mathematics;
o Early achievement of required outcomes for their stage in BOSTES mathematics syllabuses;
o Social adjustment;
o Emotional readiness for the acceleration proposed in mathematics;
o Future patterns of study; and
o Issues centred on school staffing and resources.

STATEWIDE INDICATORS OF CAPABILITY

- As a general guide the following statewide percentages are indicators of the proportion of students capable of acceleration:
  o Acceleration in mathematics would be available to the most capable 2% to 5% of students on a statewide basis not the school basis.
- These statewide percentage indicators mean that some schools may not, at any time, have any students of a truly outstanding or exceptional ability level warranting acceleration.

HOW MUCH ACCELERATION IS APPROPRIATE?

- In determining how much acceleration is appropriate in mathematics, due regard should be paid both to the outcomes for the curriculum stage the student is currently undertaking, and the outcomes for the next curriculum stage.
  o Has the student demonstrated a comprehensive achievement well in advance of the enrolment cohort for the mathematics outcomes for the current curriculum stage?
  o What level of achievement of the outcomes for the next curriculum stage is the student already demonstrating?

ASSESSING CAPACITY FOR ACCELERATION

- Measures that may/should be used to assess capacity for acceleration may/should include:
  o Independent, standardised tests of mathematics achievement such as the PAT Maths (off-level) test;
  o Multidimensional testing e.g. ALLWELL;
  o Year 5, Year 7 and/or Year 9 NAPLAN numeracy results. The following guideline should apply:
    - Year 5 Numeracy achievement – Band 8
    - Year 7 Numeracy achievement – Band 9
    - Year 9 Numeracy achievement – Band 10
  o School attendance record;
  o Behavioural checklists;
  o Reports from class teachers;
  o Products and performance;
  o Class grades in all courses undertaken by the student;
  o A report from the school counsellor;
  o Recommendation of a psychologist;
  o Interviews with the student;
  o Interviews with the student’s parents/guardians;
  o Anecdotal records;
  o Evidence of any academic prizes or awards the student has received;
  o Evidence of the student’s extracurricular and out-of-school activities, interests and abilities;
  o Reports from an independent person with expertise in mathematics.

DETERMINING EMOTIONAL AND SOCIAL READINESS
Observation of interactions with peers over a reasonable time period;
- Evidence of the student’s maturity, social skills and participation in activities beyond the school environment, e.g. out-of-school hobbies, interests, participation;
- The student’s level of self-esteem and motivation;
- Consideration of the student’s adjustment to problems and decision-making skills;
- The student’s participation in extracurricular school activities;
- The relative benefits of acceleration versus enrichment;
- Reports from professionals such as the College Counsellor and/or education psychologists;
- Anecdotal evidence from teachers and parents.

RECORDING STUDENT PROGRESS

- A comprehensive record of any student who has been accelerated should be maintained.
- Supporting documentation on each record should show evidence, over time, of the suitability/necessity for accelerated mathematics progression. This means that there should be a trend extending back beyond the current year, without requiring an exhaustive dossier over too long a period of time.

WHOLE-GROUP/WHOLE-CLASS ACCELERATION

- It is important in any program of accelerated progression that is based upon the acceleration of a total group of students that the principles of individual progression are not lost in the timetabling and administrative arrangements.
- Keeping a whole group of students together and providing a program that ensures that they all ‘accelerate’ together may limit the possibilities for some students.
- The acceleration of students should be on an individual basis, i.e. each student should be separately and carefully considered for accelerated mathematics progression.

TRANSITION FROM PRIMARY TO SECONDARY (STAGE 3 TO STAGE 4)

- Consideration should be given to the most appropriate method of transition from Stage 3 to Stage 4 mathematics.
- Where a highly talented student, still in Stage 3, is ready and able to undertake study in mathematics at Stage 4 level, but is not to move to a higher cohort and where extension work is no longer appropriate, a suitable arrangement would be for the student to remain in the primary school and for the primary teachers, within the normal classroom, to provide the student with experience in the secondary, mathematics syllabus.
- If the College plans to accelerate a student from primary to secondary, a trial might be advantageous during which the student attends the secondary campus and Year 6 for the other subjects. At the end of this trial period, the student may then move full time into secondary school for Mathematics.
- In acceleration from primary to secondary it is absolutely necessary that the receiving teachers be supportive.
- Decisions on early entry to high school should be shared jointly by the primary and the secondary school leaders.

EVALUATION OF STUDENT PROGRESS

- Semester evaluation of the student’s progress in mathematics is crucial to the acceleration plan.
- The student and or the parents have the right to withdraw from the program at any time.
- A progress report on the student must be prepared for the College Principal each Term.
LEAVING THE ACCELERATION PROGRAM

- Care must be taken in determining the conversation(s) with students and parents/carers who may need to leave the program. These conversations need to be confidential and conducted in a caring and respectful manner.
- Documented evidence needs to be presented to adequate support the decision to be undertaken. This documented evidence should be collected over an appropriate period of time to justify the advice being given to the parents/carers and student.
- Adequate warning must be given to the student and parents/carers in a documented fashion. The use of a College pro-forma letter would be appropriate in this regard.
- Support must be gained from the College Counsellor to address the social and emotional needs of the student, as well as any support that may be necessary to the student at this difficult time.
- Careful consideration needs to be given to the resulting curriculum pattern of study after the student has left the program. This information needs to be communicated clearly to both the parents and the individual student.

SELECTION CHECKLIST

☐ Identification of student using school assessments.

☐ Determination of the student’s academic ability across all subjects.

☐ Attendance record printed and considered

☐ Check if there are other mathematics students with a similar ability that should also be offered the opportunity to accelerate.

☐ Consultation with College curriculum coordinator, relevant KLA staff, other appropriate staff about the suitability of the student to accelerate in mathematics.

☐ Liaise with the student about the reasons and suitability to accelerate in mathematics and their social and emotional readiness to do so.

☐ Liaise with parent/carers – discuss the emotional and social as well as academic level of the student. Outline timetable constraints and proposed plan in future years.

☐ Year 5, Year 7 and/or Year 9 NAPLAN numeracy results determined. The following guideline should apply:
  - Year 5 Numeracy achievement – Band 8
  - Year 7 Numeracy achievement – Band 9
  - Year 9 Numeracy achievement – Band 10

Copies of these results to be placed on student’s acceleration file.

☐ Conduct standardised, off-level testing – e.g. PAT Maths to find the limit of knowledge and to prevent ‘ceiling’ effects.

☐ Conduct other standardised tests e.g. Ravens, ALLWELL General Reasoning test.
□ Other testing (where appropriate) i.e. psychometric (WISC, SBV)
□ A social and emotional readiness report to be presented by the College Counsellor.
□ Use higher year mathematics tests or UNSW Mathematics Competition tests to determine student’s readiness to study at the higher level in mathematics.
□ List how the syllabus outcomes have been met and place this document on the student’s file.
□ Final decision and communication with parent/carers.
□ Complete the BOSTES pro-forma if required.
□ Create an individual student plan (Individualised Education Plan or Individualised Learning Plan) including the appointment of a mentor.
□ Trial the program for 6 weeks and evaluate the student’s progress

**BOSTES POLICIES ON ACCELERATED PROGRESSION**

(ACE 4015, ACE 4028, ACE 8104, ACE 8043 and ACE 8104 have been incorporated.)

**GENERAL POLICIES K – 12**

- The BOSTES views accelerated progression as part of a wider process of flexible progression within NSW schools.
- School principals will determine suitable students for acceleration subject to the requirements of the BOSTES guidelines, as appropriate.
- Students who accelerate must be able to demonstrate completion of the BOSTES syllabus outcomes, i.e. they must attain the outcomes required in the BOSTES syllabuses earlier than other students. It follows therefore that they should not be accelerated at all if they have not achieved at a high standard in the required outcomes. This need not mean that every outcome has been fully attained; however, the student should have demonstrated a very high standard of achievement. The emphasis must be on required outcomes rather than the content of courses.
- **Acceleration must be on the basis of compression of the curriculum, or curriculum ‘compacting’, not omission, i.e. accelerating students should be outstanding or exceptional students who attain the BOSTES curriculum outcomes in less time than other students.**
- Appropriate students may be accelerated at any time once they have achieved the BOSTES outcomes.
- Acceleration is possible in all subjects (grade advancement), in one subject (single subject acceleration) or in a number of subjects. Within each subject, acceleration should generally occur in the highest level course available.
- For students accelerating by less than two years, schools should simply enter students for their accelerated course(s) for the Stage 5, Preliminary or HSC study pattern(s) via Schools Online.

**NOTIFYING THE OFFICE OF BOSTES, ESPECIALLY THROUGH YEARS 7 – 12**

- Where the proposed acceleration is for two years or more ahead of the student’s age cohort and is likely to lead to early entry for the secondary credentials, the College Principal must inform the BOSTES prior to the acceleration of the student. A proforma is supplied by the BOSTES guidelines document.
- The BOSTES proforma does not replace the need for schools to correctly enter students into the required secondary credentials using Schools Online.
The decision to accelerate a student in one or more courses should take into account the balance of the student’s achievement in all courses.

Students who are accelerated in one or more courses will be outstanding students within the subject candidature at state level.

It is expected that these students will present at the highest level course in the accelerated subject when they sit for the HSC.

Students may only accelerate into Board Developed courses.

Students should be entered for their Stage 5 accelerated course in the calendar year in which they will complete it.

Students who are accelerated into Year 10 or from Year 10 into Year 11 will be outstanding or exceptional students whom the school can confidently expect will receive ‘A10’ or ‘A9’ mathematics grades in Stage 5.

Students who are not expected to receive an ‘A’ grading should not be accelerated unless there are exceptional and compelling circumstances.

Students who are accelerants in terms of these guidelines, and for whom the school confidently expects a grade ‘A’ to be awarded in Stage 5, may begin studying Stage 6 courses while still in Stage 5.

Acceleration must be based on the principle of compression of work, not omission of work. Students who accelerate in one or more courses must achieve the required outcomes of the course(s), but in a shorter time frame (i.e. one or more years in advance of their cohort).

Where a student demonstrates a genuine interest in and aptitude for a Stage 6 course, for which there is no corresponding Stage 5 course, the student may begin studying the Stage 6 course when all requirements in that particular KLA have been completed.

An appropriately selected student might commence Stage 6 Preliminary course study in one course, for example, and compact the Preliminary and HSC course work into approximately fourteen months or five terms, thereby undertaking the HSC examination in that course at the end of the following year.

Students accelerating into Stage 6 Preliminary course work will need to be entered with the Board for the higher level study.

An accelerating student may be permitted to repeat a course in which they have been accelerated, although this would not be the expectation.

Where a student has demonstrated a genuine talent in a particular subject and has completed all Stage 5 requirements for that subject, e.g. 5.3 Mathematics, the student may begin Stage 6 in an appropriate course, e.g. Preliminary Mathematics.

Where a student is considered appropriate for acceleration in Mathematics, acceleration should be in the Mathematics Preliminary Course, not the General Mathematics Course. The accelerant would then progress to the HSC Mathematics Course. Students may also study Mathematics Extension Courses 1 and 2.

Acceleration must be based on the principle of compression or compacting of study, not omission of work. Students who accelerate in one or more courses must achieve the required outcomes for the courses, but in a shorter time frame, i.e. one or more years in advance of their cohort.

Accelerating students may count towards their Higher School Certificate results obtained in advance of their cohort. This means that acceleration, other than whole grade advancement, can be regarded as a form of accumulation. However, it is a particular form of accumulation, achieved through meeting required outcomes in less than the BOSTES stated indicative time.
A student who may have achieved BOSTES outcomes early through the provision of additional study time is not an accelerant.

- Where the proposed advancement is for two cohort years or more and is likely to lead to early entry for the Higher School Certificate the matter must be referred to the Office of the BOSTES.
- The main principle governing the issue of assessment tasks for accelerating HSC students is the BOSTES policy that accelerating students must be capable of compressing required study rather than omitting requirements. Therefore, in terms of the formal assessment program for the HSC, a student accelerating in a subject should complete all assessment tasks (or the equivalent) that are undertaken by students completing the usual HSC program in the subject.
- This does not mean that accelerating students must complete every assessment task at the same time as other students. In some instances this will clearly be impossible as it depends on the time at which the student is accelerated and the amount of work that has been covered.
- There may need to be flexibility in the order and timing of assessment tasks. This also means, however, that accelerating students may have to do additional work at certain times and that, to some extent, programs of work may have to be specifically tailored for the student's needs.
- Students accelerating into a Stage 6 course must complete the HSC: All My Own Work program (or equivalent) prior to commencing the course.

OPTIONS FOR ACCELERATING STUDENTS AT HSC LEVEL

- Accelerating students, as with all HSC students, will have open to them a range of alternative pathways to the HSC.
- Accelerating HSC students, having completed HSC courses in advance of the Year cohort, may:
  - Undertake additional units for the HSC;
  - Undertake an HSC extension course, if requirements are met;
  - Undertake a university level course, e.g. a Distinction Course or University Extension Course;
  - Undertake external or part-time study at University or TAFE;
  - Commence part-time work in addition to their studies;
  - Undertake a combination of some of the above options.

REPEATING OF COURSES BY ACCELERANTS

- The issue of accelerants repeating courses, particularly courses for the secondary credentials, is a complex one.
- An accelerating student may be permitted to repeat a course in which they have been accelerated, though this would not be the expectation. If a student is accelerated, it should occur in the educational interests of the particular student, and with a strong probability of success in that accelerated subject or subjects.
- It may be desirable for principals to ensure that a student has a trial period of enrichment and limited acceleration before formal acceleration is confirmed.
- ATAR rules specify that, while a student may repeat a subject at the HSC, only the most recent result may be counted for ATAR purposes.