Philosophy of the Talent Development Program at BDC

The Bishop Druitt College community is committed to the ideal that every student has a right to learn and to reach their potential. The College upholds the belief that all students can learn and graduates of Bishop Druitt College have the skills to be self-directed and independent life long learners. This includes those students who possess a high level of cognitive, affective, or creative capacities.

Philosophically and ideally, all teachers at Bishop Druitt College strive to differentiate the curriculum in accordance with individual student needs. However, the College recognises that for students who have been identified as being academically talented, alternative programming and/or teaching may assist them in achieving their academic potential.

We also recognise that many academically talented students require specialised support in developing their social and emotional skills. Issues such as perfectionism, fear of failure and underachievement can become serious concerns for talented students. The Talent Development coordinator will have an integral role to play in facilitating the social and emotional needs of talented students through the College's Pastoral Care program and counseling services.

Academically talented students should be given opportunities to expand their knowledge base and to develop their potential. True learning is not easy. It requires effort and transformation of the individual. Opportunities are created for individuals to be creative and become problem solvers. Students need to develop the skills, attitudes, and the motivation that will help them become self-directed and independent learners.

According to the *Guidelines for Accelerated Progression* from the NSW Board of Studies (2000), a range of educational options are required to cater for students with exceptional ability. There are three main methods of catering for an intellectually gifted child and these approaches include: enrichment, extension and acceleration.

Enrichment activities add greater breadth to curriculum content and are suitable for all students. Extension activities allow students to explore areas of study or interest in more depth. Most students will benefit from these activities. Acceleration permits a limited number of students to move through content at a faster rate.

Academically talented students should be challenged through the provision of learning experiences that provide the most appropriate combinations of:
- Enrichment at the same level of challenge
- Learning opportunities at a higher level of challenge
- Learning opportunities that meet the specific needs and interests of the particular student
- The opportunity to spend time, where possible, with others of like ability and interests (Benbow, 1998)
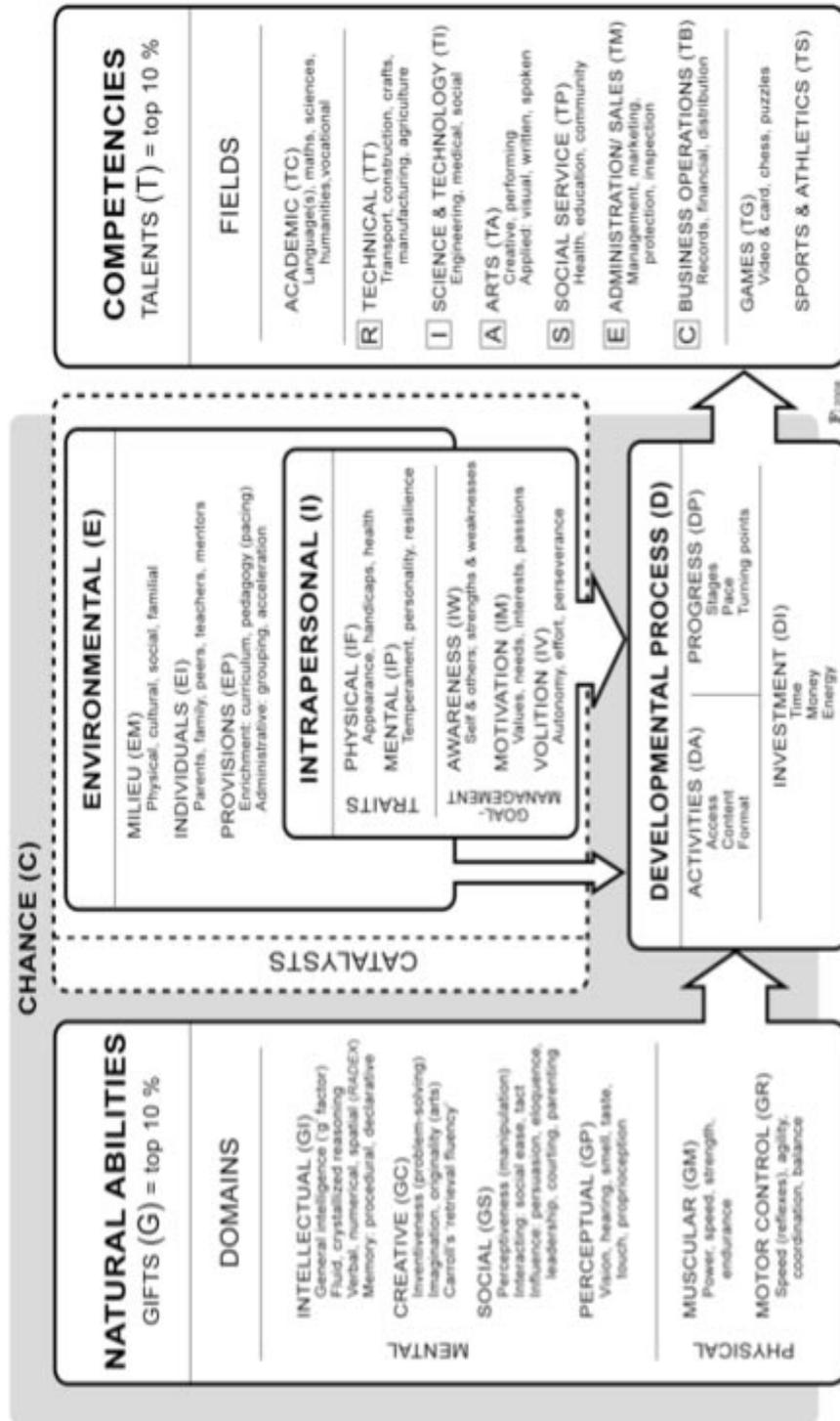
For a very small number of high ability students – the outstanding and the exceptional - this may mean acceleration beyond their enrolment cohort into a higher cohort, either:
- In all subject areas (ie a year level advancement), or
- In one or more subject areas in which the student is particularly talented (ie partial acceleration).

Aims and Objectives

In the development of a program for talented students, Bishop Druitt College has based its understanding of talented students in Gagné's Differentiated Model of Giftedness and Talent.

DMGT 2.0 Overview 3

COMPETENCIES
TALENTS (T) = top 10 %

FIELDS

ACADEMIC (TC)
Language(s), maths, sciences, humanities, vocational

R TECHNICAL (TT)
Transport, construction, crafts, manufacturing, agriculture

I SCIENCE & TECHNOLOGY (TI)
Engineering, medical, social

A ARTS (TA)
Creative, performing
Applied: visual, written, spoken

S SOCIAL SERVICE (TP)
Health, education, community

E ADMINISTRATION/ SALES (TM)
Management, marketing, protection, inspection

C BUSINESS OPERATIONS (TB)
Records, financial, distribution

GAMES (TG)
Video & card, chess, puzzles

SPORTS & ATHLETICS (TS)

ENVIRONMENTAL (E)

MILIEU (EM)
Physical, cultural, social, familial

INDIVIDUALS (EI)
Parents, family, peers, teachers, mentors

PROVISIONS (EP)
Enrichment: curriculum, pedagogy (pacing)
Administrative: grouping, acceleration

INTRAPERSONAL (I)

TRAITS

PHYSICAL (IF)
Appearance, handicaps, health

MENTAL (IP)
Temperament, personality, resilience

GOAL-MANAGEMENT

AWARENESS (IW)
Self & others, strengths & weaknesses

MOTIVATION (IM)
Values, needs, interests, passions

VOLITION (IV)
Autonomy, effort, perseverance

DEVELOPMENTAL PROCESS (D)

ACTIVITIES (DA)
Access
Content
Format

INVESTMENT (DI)
Time
Money
Energy

PROGRESS (DP)
Stages
Pace
Turning points

CHANCE (C)

CATALYSTS

NATURAL ABILITIES
GIFTS (G) = top 10 %

DOMAINS

MENTAL

INTELLECTUAL (GI)
General intelligence ('g' factor)
Fluid, crystallized reasoning
Verbal, numerical, spatial (RADEX)
Memory: procedural, declarative

CREATIVE (GC)
Inventiveness (problem-solving)
Imagination, originality (arts)
Carroll's 'retrieval fluency

SOCIAL (GS)
Perceptiveness (manipulation)
Interacting: social ease, tact
Influence: persuasion, eloquence
leadership, courting, parenting

PHYSICAL

PERCEPTUAL (GP)
Vision, hearing, smell, taste,
touch, proprioception

MUSCULAR (GM)
Power, speed, strength,
endurance

MOTOR CONTROL (GR)
Speed (reflexes), agility,
coordination, balance

2

All students at Bishop Druitt College should be challenged and supported to achieve their best. A combination of learning experiences is required for academically talented students and Bishop Druitt College aims to meet these objectives in the following ways:

1. Differentiated curriculum - all teachers, Primary and Secondary will work to differentiate their curriculum allowing for opportunities of enrichment. At its most basic level, 'differentiated classrooms provide different avenues to acquire content, to process or make sense of ideas, and to develop products so that each student can learn effectively' (Tomlinson, *How to Differentiate Instruction in Mixed-Ability Classrooms* 2nd Edition, 2001). Ideas to support differentiation are attached (Appendix C).
2. Learning opportunities at a higher level of challenge – this includes creating extension and enrichment activities. This is a form of differentiation and one all students can benefit from, however, to meet the needs of the academically talented student, the enrichment or extension activity is designed at the appropriate intellectual level. This may be appropriate in all curriculum areas or only some areas where students have demonstrated a particular aptitude. The activities may occur as independent learning in the class or incorporate some withdrawal from the class to allow opportunities to implement an independent learning plan.
3. Challenging activities will be offered through extra curricula programs such as participation in competitions. For example the Tournament of Minds, Philosophon, ICAS competitions, Chess, Debating and Public Speaking etc. Teachers in their specialised areas and the Talent Development coordinator will coordinate participation in these activities. Documentation of participation in these extra curricula activities needs to be maintained.
4. Similar ability groupings – this includes the provision for some subjects in the Secondary and Primary school to organise class composition according to performance in that subject. This form of class grouping may also occur as withdrawal from some classes as timetabled, to allow for the opportunity for academically talented students to spend time with others of like ability and interests which is of benefit to their development. Within this time, group projects or independent learning with supervision may be appropriate. A program will be developed and followed by students during this time. It should be documented and reported on to parents in a similar manner to all other school programs.
5. Acceleration – accelerated progression in a single subject or whole year may be considered for a student with exceptional abilities.
6. Group acceleration in particular subject areas may also be possible in the Secondary School, such as a group of Year 11 students may undertake the HSC course in a particular subject if appropriate.
7. We acknowledge that students can be talented in a range of areas but our focus through the Talent Development program will be on the academic achievements of students. The Music, Drama, Creative Arts and Sport programs at the school currently promote the talents of individuals in their specific disciplines as well as providing leadership opportunities for students with such skills.

Principles and Procedures for Identification of Academically Talented Students

The process for the identification of academically talented students must
- Be dynamic and continuous
- Allow for identification at any stage of the student's development
- Allow for the highly talented students to emerge from the larger talented group

3

- Ensure that the identification of students from disadvantaged and culturally diverse groups is not overlooked.

It is important that multiple criteria be used to identify academically talented students and that a range of information is sought from a range of people. However, of paramount importance is past performance of the individual as this is the most quantitative information available.

NOTE: Students should never be selected for programs that withdraw them from core programs on the basis of a single piece of information.

Process for Identification:
1. Nomination
2. Screening
3. Monitoring

Students will be able to access the program at the commencement of Semester 1 and/or 2. Information will be distributed to teachers asking for nominations during Term 4 of the previous year and Term 2. The decision to allow students to access the Talent Development program will be made by a group of staff. In the Primary School, this will include the Talent Development Teachers, the Primary Coordinators counsellors and the Head of Primary. In the Secondary School, the Director of Curriculum, the Talent Development Coordinator and Head of LRC.

The nomination forms are attached as Appendix A.

The decision to accelerate a student a complete year level is a complex decision that must take into account the academic potential of the student, their academic performance to date and their social and emotional welfare. This is a decision that must be made with information from a range of sources including but not limited to the student's parents or guardians, teacher/s, counselors, the Director of Pastoral Care, the appropriate Head of School and the Principal. Any discussions about acceleration must be documented on the student's file.

Teacher Professional Development
The emphasis of accommodating the academically talented student will fall more to the subject teacher in the Secondary school. The focus shifts to accommodate talented students' preferences for independent learning. For this to be effective, the Secondary staff need significant and ongoing professional development. They need to be able to negotiate Individual Learning projects that are suitable for talented students in their classes and meet both the students' academic needs and BOS syllabus requirements. It is important that the projects set by students and teachers challenge the student in the appropriate way and are not just more of the same or different work at the same level.

Ongoing teacher professional development is required to aid teachers to more fully understand the importance of working to transfer potential to reality for talented students. The aims of differentiated curriculum and accurate nominations will not be met without ongoing professional development. This should be a part of the role of the Talent Development Coordinator to work with teachers to facilitate further understanding about academically talented students and to assist teachers to better meet the needs of these students.

The resources to provide this professional development are essential. Without an improved understanding of academically talented students and how to differentiate the curriculum for

them, many teachers will continue to work to meet the needs of the majority of class at the expense of the academically talented students.

The Talent Development Program

The structure of the Talent Development program will differ between the Primary and Secondary school because of the different school structures of classroom teachers in Primary and faculty based teachers in the Secondary.

The Primary Program

The Primary school will identify students from past performance and run small group extension and enrichment activities with a Talent Development teacher for Senior Primary students. This program will focus on Mathematics and English and will use a combination of individual and group work with students. The program will involve students exploring areas within the curriculum in greater depth and encourage higher order thinking as per Bloom's Taxonomy (Appendix B). The program will also work with students to further develop their socio-affective skills, thinking and cognitive strategies as well as group work skills. This program will target those students whose past performance has clearly indicated that they are academically talented beyond their age peers. The needs of the vast majority of Junior Primary students will be met through the delivery of a differentiated curriculum or through an Individual Learning Plan developed by the class teacher and the Junior Primary Coordinator. If a student demonstrates ability significantly above that of the grade cohort, partial acceleration may be considered following discussion with interested parties and consideration of the results of above grade testing.

A Primary Creative Thinkers' Group will also be established for students who have demonstrated potential but have not been able to consistently realise their potential in the classroom. These students will be identified through a teacher nomination process to the relevant Primary Coordinators. Students nominated will be considered and a decision on the composition of the group will be made by the Head of Primary, in consultation with the Talent Development team, which will consist of the Talent Development Teachers, Primary Coordinators and the Head of Primary. This group will be a small group of students (6 to 8) who will work with the Talent Development Teacher on strategies to improve their performance and/or passion to allow their potential to be more fully realised.

Primary students identified for either of these groups will be withdrawn from their class activities at a time determined by the Director of Administration and the Head of and the Talent Development Coordinator at the beginning of each academic term.

The Secondary Program

The Secondary School will offer students in Years 7 to 10 in the Talent Development Program the opportunity to undertake extension activities within subject areas where they have particular interest or aptitude and have demonstrated this through their past academic performance. These activities will follow the Individual Learning Program (ILP) model (Appendix B) and will be facilitated by the Talent Development Coordinator. The student, in conjunction with the subject teacher and the Talent Development Coordinator, will develop the ILP.

Group withdrawal of students working on ILPs will also occur, ideally once per week to participate in a Creative Thinking Program which will be an opportunity for them to meet and

5

work with like-minded students. The program will address the socio-affective issues of academically talented students, thinking strategies and group skills.

This Creative Thinking Program will also run for a small group of students in Years 7 to 10 who have been nominated by their teachers as having potential but lacking performance and/or passion for school. The aim of this program will be to assist students to perform to their potential more consistently.

Talented students in Years 11 and 12 will be encouraged to seek extension through the HSC and University Pathways programs.

All classes in the Secondary School with talented students will be timetabled by the Director of Administration and the Director of Curriculum.

Individual Learning Programs

Steps in creating an Independent Learning Plan

Identify
Use the identification form and/or a pretest to
identify suitable students for the ILP

Plan
Using the Kaplan Planning Grid (Appendix A) as a learning log
Negotiate a set of activities giving clear
deadlines and expected evidence combining
syllabus outcomes and student interest

Implement
Give a copy of this Planning Grid to the Talent Development Coordinator who will book students into the Library.
A copy will also be given to the Head of Information Services. The Talent Development Coordinator will check that
students have evidence of completing the task

Assess
Assess students evidence with reference to the
higher order thinking involved

Evaluate
Evaluate the progression of the activity and
change where necessary

Role of the Talent Development Coordinator
In the Secondary School, the role of the Talent Development Coordinator is to facilitate and coordinate provisions offered for students who are academically capable. In the Primary School the Talent Development Coordinator will work with the Talent Development Teacher to deliver this program.

This will include:
Working closely with the teaching staff at Bishop Druitt College to identify students who would benefit from participation in the Talent Development Program. This should take several forms.
1. To work closely with the Talent Development Teacher in the Primary School
2. To support the teachers to differentiate the curriculum to meet the needs of students in their classes.
3. To support teachers to develop their understanding of academic talent so they are able to identify talented students more accurately.
4. To facilitate the Individual Learning Programs with teachers who have Talent Development students in their secondary subjects. This will also include coordinating with the Head of Information Services to ensure that students are able to complete their work.

Working directly with students in the Talent Development Program in the following ways:
1. Withdrawal lessons with Secondary students undertaking an ILP once per week in the Creative Thinkers group to work particularly on developing their socio-affective skills and to give them an opportunity to work with like-minded students.
2. Work with students to support them to complete the ILP that has been set for them by subject teachers.
3. Work with Primary and Secondary students nominated to be a part of the Creative Thinkers' Group and focus on the development of thinking/cognitive strategies and group skills.
4. Where appropriate to coordinate mentoring for academically talented students with older students or members of the wider Bishop Druitt community.

Facilitate the identification of students for Talent Development programs. This will involve
- Alerting the community to deadlines for nominations.
- Coordinating a meeting to discuss the students who have been nominated
- Processing all nominations.
- Recording details of all students nominated and the final composition of the group in Denbigh.

A permission letter is to be sent to parents about their child's invitation to be included into the Talent Development Program that outlines the work to be undertaken and that student involvement in this program will mean they will miss lessons from their timetable. These permission forms are to be recorded in Denbigh.
Report on students in the Talent Development Program through the end of semester report to parents outlining their attitude to learning, their use of time, ability to work independently and /or cooperatively and their organisational skills.

For students in Years 10, 11 or 12, the Talent Development coordinator needs to work with the Careers Advisor and the Director of Curriculum to choose appropriate subjects for the HSC and to seek opportunities for extension or acceleration within the HSC.

The face-to-face component of the Talent Development Coordinator's role is 0.3 (12 periods per cycle) across K – 12. This time will be timetabled by the Director of Administration in both Primary (2 periods per week) and Secondary 8 periods per cycle).

The Talent Development Coordinator will facilitate and coordinate extra curricula activities for academically talented students. This may include those in the formal program and others who would like to be involved. Accurate records are to be kept in Denbigh of the involvement of students in these activities, permission forms and other relevant information.

The Talent Development Coordinator will work with the Pastoral Care Team in the College to support academically talented students who may have pastoral issues at any time and will report directly to the Head of the Learning Resource Centre in the Secondary School and to the Senior Primary Coordinator in the Junior School.

Appendix A: Nomination Forms
Nomination by parent or caregiver

Student's Name: .... Year: ....

Person completing the form: .... Relationship to student: ....

Characteristic	Most of the time	Some of the time	Rarely
Recalls facts easily	☐	☐	☐
Expresses himself/herself fluently	☐	☐	☐
Is always asking questions	☐	☐	☐
Has a sense of humour	☐	☐	☐
Finds unusual uses for things	☐	☐	☐
Tends to lead/initiate activities	☐	☐	☐
Is curious	☐	☐	☐
Has long attention span	☐	☐	☐
Is easily bored	☐	☐	☐
Is an avid reader	☐	☐	☐
Thinks logically	☐	☐	☐
Mixes with older children and adults	☐	☐	☐
Is impulsive	☐	☐	☐
Is an independent learner	☐	☐	☐
Is concerned about world issues	☐	☐	☐

When did you child first begin to read? Is he/she self-taught? ....

....

At what age did your child show an understanding of numbers, puzzles and patterns? ....

....

How many books and magazines would your child voluntarily read in a month? ....

....

Does your child have any unusual interests? If so, what are they? ....

....

What types of television programs does your child like to watch? ....

....

Does your child have an interest in music? If so, what is he or she learning and what level has

been attained? ....

In what activities does your child participate outside school hours? ....

....

What hobbies and interest does your child have? ....

....

Would you consider that your child has a particular problem or need that may affect his or her

learning? ....

Please add any other information you may feel relevant to your child's education. ....

....

....

Nomination by teacher

Student	Advanced vocabulary	Transfers knowledge	Well-developed sense of humour	Always questioning	Leader, takes control	Concerned about world issues	Completes tasks in unusual way	Superior reasoning	Curious	Highly imaginative	Independent learner	Risk taker	Learns easily and quickly	Perfectionist

Nomination by peer

Name: .... Year: ....

If astronauts were being selected on the basis that they could tell someone on another planet all about Earth, who would you nominate to go? ....
....

Who is the funniest person in your class? ....
....

If you needed help with a particular subject, who would you ask? ....
....

Who in your class would you ask for help if you had a personal problem? ....
....

Who is the best in your class at solving problems? ....
....

Imagine that the class was given the project of building a model of an invention. Who would you expect to build the best and most original model? ....
....

Which students in class can complete their work and still have time for other activities? ....
....

Who says the most original things in class, things that you would never have thought of? ....
....

If children did not have to go to school, who could talk you into going? ....
....

Who can structure the best argument in the class? ....
....

Who should have the lead role in the school play?...
....

If your teacher could not be in the classroom, who could take over? ....
....

Imagine that the school has been asked to provide a work of art for the youth centre. Who in your class should be asked to do it? ....
....

Who is always reading? ....
....

Who has a wide range of knowledge? ....
....

Self-Nomination form

Name: .... Year: ....

If you were given the chance to meet anyone in the past or present, whom would you like most to

meet and why? ....

....

....

....

What is your favourite subject? ....

....

....

....

What do you enjoy about this subject? ....

....

....

....

What do you like to read? For example: books, magazines, fiction and non-fiction. ....

....

....

....

About how many books or magazines would you read each week? ....

....

....

....

When you are not at school, what do you do? ....

....

....

....

What sorts of things interest you? Do you know a lot about certain things? What are they? ....

....

....

....

....

....

....

....

Observational Guide

Student's strengths and weaknesses

Date:	Topic:	
Students' names	Specific strengths	Areas for development

Observational Guide

Appendix B: Kaplan Planning Grid

Theme	Syllabus Outcomes	Research Skill/s	Productive Skills	Product
Implementation Sequence:				Did the student achieve the goal of the activity?

How do you develop Independent Study or Research Projects for gifted students?

Kaplan (1979) listed the following principles as a guide in making curriculum decisions for gifted students:

1. Focus on major issues and concepts.
2. Emphasis on a large knowledge base.
3. Use of activities that show how subjects relate.
4. Emphasis on in-depth research.
5. Teaching of thinking skills.
6. Higher order thinking incorporated into all instruction.
7. Increased complexity and pace.
8. Focus on student self-direction.

The Kaplan Model (1986) examines curriculum differentiation in the areas of content, process, product and learning environment and the model provides an excellent scaffold for developing theme-based independent research or study projects.

In an independent investigation:

1. Students are attempting to answer a question through research.
2. Students need to use a variety of resources.
3. Students need to communicate their findings in an effective manner.

To do so, students must:

- Review the literature to find out what is already known about the topic.
- Generate questions about a self-selected or teacher-selected topic.
- Select one question.
- Formulate one or more hypotheses about the question.
- Design a way to answer the question or assess whether or not the hypothesis is true.
- Collect and analyse information.
- Form conclusions about the question or hypothesis.
- Present conclusions to an appropriate audience.
- Present questions for further research.

The following are the steps of development of such projects. You may like to use the blank Kaplan Grid to develop an independent research project for your unit of work as you work through this section.

Step One: Choose a key word, theme and discipline/s on which to base the project. Note that it is often appropriate to use the theme of the core unit of work being implemented. It may be necessary to choose two key words to create more complex projects.

Key Words

Kinds	Relationship	Types	Function
Changes	Purpose	Style	Conditions
Effect	Value	Importance	Characteristics

Themes

Power	Death	Leisure	Change
Ownership	Work	Courage	Life
Freedom	Peace	Commitment	Conflict
Family	Responsibility	Violence	Love
Invincibility	Sound	System	Religion
Hate	Creation	Silence	Invention

Wisdom	Morality	Evaluation	Energy
Friendship	Fairness	Infinity	Emotion
Conservation	Pollution	Tradition	Citizenship
Destruction	Law & Order	Happiness	Suffering
Truth	Knowledge	Beauty	Ignorance
Spirituality	Justice	Survival	Equality
Loyalty	Healing	Tolerance	Growth
Values	Education	Time	

For example:

Theme	Syllabus Outcomes	Research Skill/s	Productive Skills	Product
Purpose and Effect of Systems				

Step Two: Choose the core or extended outcomes to be addressed by the project from the appropriate syllabus documents. For example:

Theme	Syllabus Outcomes	Research Skill/s	Productive Skills	Product
Purpose and Effect of Systems	**H 5.2**			

Step Three: Determine the research skills to be developed by this project.

Research Skills

Taking notes	Using a classification key
Interviewing	Using reference resources
Computerised bibliographic research	Reporting research
Designing a research method	Establishing criteria to judge
Using a retrieval system	Citation Generator
Taking a survey	Observing detail through verbal/visual description
Using journals, magazines, newspapers	Writing abstracts
Analysing, interpreting data	Outlining
Substantiating with evidence	Using fiction and non-fiction

For example:

Theme	Syllabus Outcomes	Research Skill/s	Productive Skills	Product
Purpose and Effect of Systems	H 5.2	Designing a research method; Establishing criteria to judge		

Step Four: Choose a critical and creative thinking skill to be developed through the project.

These skills may be selected from Bloom's Taxonomy and the Williams Model (See Below). For example:

Theme	Syllabus Outcomes	Research Skill/s	Productive Skills	Product
Purpose and Effect of Systems	H 5.2	Designing a research method; Establishing criteria to judge	Analysis Evaluate situations	

Step Five: Choose a product or choice of products, which will reflect the outcomes and skills of the project. The following list may be useful but is by no means exhaustive:

Self-evaluation	Editorial	Opinion	Debate
Story	Written report	Diagram	News article
Chart	Advertisement	Cartoon	Model
Recipe	Illustration	Invention	Mobile
Television show	Map	Structure	Diorama
Puppet show	Sculpture	Pantomime	Puzzle
Set of photographs	Magazine	Simulation	Newspaper
Play	Book	Demonstration	Tape
Teaching lesson	Filmstrip	Computer program	Recommendation
Scrapbook	Letter	Research report	Journal
Bulletin board	Panel discussion	Exhibit	Poem
Oral presentation	Value statement	Graphic	Survey
New game			

Step Six: Develop an implementation sequence for the project in consultation with the student or students involved. For example:

Theme	Syllabus Outcomes	Research Skill/s	Productive Skills	Product
Purpose and Effect of Systems	H 5.2	Designing a research method; Establishing criteria to judge	Analysis Evaluate situations	Research Report – multimedia format
Implementation Sequence: 1. Students will develop a differentiated unit of work to implement with their class in order to answer the question: How do we measure the impact of curriculum differentiation on students? 2. Students will design a research method. 3. Students will develop criteria for measuring curriculum differentiation's impact on students. 4. Students will collect data to analyse. 5. Students will analyse data and draw conclusions. 6. Students will create a multimedia presentation as a synthesis of their findings.				

Bloom's Support Information

Knowledge

Useful Verbs	Sample Question Stems	Potential activities and products
tell list describe relate locate write find state name	What happened after...? How many...? Who was it that...? Can you name the...? Describe what happened at...? Who spoke to...? Can you tell why...? Find the meaning of...? What is...? Which is true or false...?	Make a list of the main events. Make a timeline of events. Make a facts chart. List pieces of information you can remember. List all the .... in the story. Make a chart showing... Make an acrostic. Recite a poem.

Comprehension

Useful Verbs	Sample Question Stems	Potential activities and products
explain interpret outline discuss distinguish predict restate translate compare describe	Can you write in your own words...? Can you write a brief outline...? What do you think could have happened next...? Who do you think...? What was the main idea...? Who was the key character...? Can you distinguish between...? What differences exist between...? Can you provide an example of what you mean...? Can you provide a definition for...?	Cut out or draw pictures to show a particular event. Illustrate what you think the main idea was. Make a cartoon strip showing the sequence of events. Write and perform a play based on the story. Retell the story in your words. Paint a picture of some aspect you like. Write a summary report of an event. Prepare a flow chart to illustrate the sequence of events. Make a colouring book.

Application

Useful Verbs	Sample Question Stems	Potential activities and products
solve show use illustrate construct complete examine classify	Do you know another instance where...? Could this have happened in...? Can you group by characteristics such as...? What factors would you change if...? Can you apply the method used to some experience of your own...? What questions would you ask of...? From the information given, can you develop a set of instructions about...? Would this information be useful if you had a ...?	Construct a model to demonstrate how it will work. Make a diorama to illustrate an important event. Make a scrapbook about the areas of study. Make a paper-mache map to include relevant information about an event. Take a collection of photographs to demonstrate a particular point. Make a puzzle using ideas from the study area. Make a clay model of an item in the material. Design a market strategy for your product using a known strategy as a model. Dress a doll in national costume. Paint a mural using the same materials. Write a textbook about... for others.

Analysis

Useful Verbs	Sample Question Stems	Potential activities and products
analyse distinguish examine compare contrast investigate categorise identify explain separate advertise	Which events could have happened...? I ... happened, what might the ending have been? How was this similar to...? What was the underlying theme of...? What do you see as other possible outcomes? Why did ... changes occur? Can you compare your ... with that presented in...? Can you explain what must have happened when...? How is ... similar to ...? What are some of the problems of...? Can you distinguish between...? What were some of the motives behind...? What was the turning point in the game? What was the problem with...?	Design a questionnaire to gather information. Write a commercial to sell a new product. Conduct an investigation to produce information to support a view. Make a flow chart to show the critical stages. Construct a graph to illustrate selected information. Make a jigsaw puzzle. Make a family tree showing relationships. Put on a play about the study area. Write a biography of the study person. Prepare a report about the area of study. Arrange a party. Make all the arrangements and record the steps needed. Review a work of art in terms of form, colour and texture.

Synthesis

Useful Verbs	Sample Question Stems	Potential activities and products
create invent compose predict plan construct design imagine propose devise formulate	Can you design a ... to ...? Why not compose a song about...? Can you see a possible solution to...? If you had access to all resources how would you deal with...? Why don't you devise your own way to deal with...? What would happen if...? How many ways can you...? Can you create new and unusual uses for...? Can you write a new recipe for a tasty dish? can you develop a proposal which would...	Invent a machine to do a specific task. Design a building to house your study. Create a new product. Give it a name and plan a marketing campaign. Write about your feelings in relation to... Write a TV show, play, puppet show, role play, song or pantomime about...? Design a record, book, or magazine cover for...? Make up a new language code and write material suing it. Sell an idea. Devise a way to... Compose a rhythm or put new words to a known melody.

Evaluation

Useful Verbs	Sample Question Stems	Potential activities and products
judge select choose decide justify debate verify argue recommend assess discuss rate prioritise determine	Is there a better solution to... Judge the value of... Can you defend your position about...? Do you think ... is a good or a bad thing? How would you have handled...? What changes to ... would you recommend? Do you believe? Are you a ... person? How would you feel if...? How effective are...? What do you think about...?	Prepare a list of criteria to judge a ... show. Indicate priority and ratings. Conduct a debate about an issue of special interest. Make a booklet about 5 rules you see as important. Convince others. Form a panel to discuss views, eg "Learning at School." Write a letter to ... advising on changes needed at... Write a half yearly report. Prepare a case to present your view about...

Williams Model Matrix

Subject:

Topic:

Strategy	Definition	Example
Paradox	A statement that appears to contradict itself, but that may be true.	Discuss the statement: 'Necessity is the mother of invention'. When can performance enhancing drugs limit performance?
Attribute listing	Inherent open-ended properties or identities.	List your earliest memories. Who were the true 'geniuses' of the Renaissance period in Italy?
Analogy	Finding similarities between things or situations that might otherwise be different.	How is a lever like a friend? How is Othello like a puppet?
Discrepancy	Gaps or missing links in knowledge.	Why did the 'Brotherhood' use the five-pointed star as their symbol of recognition? If Vashti had not been a part of this story, would the series of events recounted in the book have unfolded?
Provocative Question	Inquiry to incite exploration and curiosity.	Antarctica is rich in minerals; should we mine it? What does a 'Renaissance man' have to be able to do, to get such a title? Are there any modern 'Renaissance men or women'?
Examples of Change	Show the dynamics of things, modifications, alterations or substitutions of things.	How did the invention of scissors change our lives? Trace how family structure has changed during the 20th and 21st centuries.
Examples of Habit	Recognition of habit bound thinking.	Study and explain alternative sources of energy to drive machines. Who invented them and are they widely used? Were the Impressionists right in protesting the dictates of the Academy?
Organised Random Search	Structured case study for new courses of action.	Who were the members of the Pythagorean 'Brotherhood'? Create a means for collecting and displaying all the centres, agencies and organisations in your state which deal in one way or another with the circulatory system.
Skills of search	Research on something done before; trial and error on new ways.	How do we remember things? Design an experiment to test the memory of the other people in your family. Set up an experiment to detect acid rain effects on granite monuments.
Tolerance for Ambiguity	Open-ended questions – 'what if…?'	What if Scott had made it to the South Pole first? What would happen if the Earth's orbit moved closer to the Sun?

Intuitive Expression	Expressing emotion through the senses; guided imagery; role playing.	Write a poem or paint a picture that depicts the emotions you feel with a particular type of weather. You have been unjustly convicted of a crime. How do you feel about the legal system, the magistrate, your lawyer, police?
Adjustment to Development	Examine or playback mistakes or failures.	As a civilisation, what have we learned from the past that has meant that Antarctica has remained relatively untouched? Study the various theories of how the pyramids were built or engineered and look for evidence that initial wrong thinking led to ultimate success.
Study Creative Development	Analyse the traits of creative people, creative processes or creative products.	Research the life of Leonardo da Vinci, with a specific focus on his role as an inventor. What processes did he undertake to design, test and record his inventions? Learn about the work of one of the female artists attached to the 'Heidelberg School'.
Evaluate Situations	Analyse implications or consequences, extrapolate from ideas or actions.	A new law has been passed which restricts all households to the use of three electrical appliances, apart from lighting. What three machines would you choose and why? The spice trade, coffee trade and now the drug trade – how have plants altered the course of history?
Creative Reading Skills	Generate novel ideas in reading.	Read *Journey to Antarctica* by Meredith Hooper. Do you think this journey is the last challenge left in the exploration of this continent? Read about the lives and times of the female Impressionists. What was there about this time that allowed some of them to achieve recognition?
Creative Listening Skills	Generate novel ideas by listening.	Interview an inventor to discover when he or she became interested in inventing new things or ideas. Listen to music composed during the Renaissance. Does this music seem to coincide with or complement the art work of the time?
Creative Writing Skills	Generate novel ideas in writing.	Rewrite a fairytale so there is no reference to numbers. Write a short story for Louisa Lawson's magazine, *The Dawn*.
Visualisation	Express ideas in three-dimensional or non-traditional Formats.	Help to plan and create a mural for your class based on the book. Construct a scale model of the Roman Forum or the Athenian Acropolis.

Appendix C: Ways to Differentiate the Curriculum

What are some ways that curriculum differentiation can be implemented in the classroom?

A variety of strategies may be used to implement curriculum differentiation in the classrooms:

- **Pre-testing -** evaluates student mastery of an outcome, it is important to ensure that pre-testing targets the assessable outcomes in an accurate and time-efficient way. Compacting - removing mastered material from the curriculum. This process may include identifying the outcomes pre-testing, eliminating areas of repetition, streamlining the learning experiences and offering enrichment, extension and/or acceleration depending on student need.
- **Developing tiered instruction -** the teacher develops a series of activities based on the same area of study but hierarchical in nature and complexity. Students begin activities at a level appropriate to their ability.
- **Negotiating contracts -** an agreement between the student, teacher and sometimes parent that results in the student working independently with varying levels of guidance.
- **Designing independent study** – is structured study where defined goals are set and achieved within a set period depending on the skills of the student. It is important these reflect the syllabus outcomes. Problem solving is an excellent example of a platform for independent study.
- **Developing a research project** - a research project where students learn how to develop the skills for independent learning. The degree of help and structure will vary between students and depend on their ability to manage ideas, time and productivity. The research project should reflect high order syllabus outcomes.
- **Utilising paired and small group work** - expectations that the students work together - expectations that the students work together in the collection, analysis and organisation of information but that each student prepares an individual product to demonstrate that learning has taken place.
- **Introducing future studies** - predicting, hypothesising, problem solving, finding possible solutions and hindsight.
- **Initiating negotiated curriculum** - students set their own topic, time span, and ways of presenting work.