



HIGH POTENTIAL GIFTED EDUCATION  
PROGRAM @ PLUMPTON HIGH SCHOOL



2025

# PLUMPTON HIGH SCHOOL HIGH POTENTIAL GIFTED EDUCATION

PREVIOUSLY KNOWN AS THE GIFTED & TALENTED (GAT) PROGRAM



*Dear Students, Parents and Carers,*

*Plumpton High School offers a significant number of High Potential Gifted Education (HPGE) (Gifted and Talented GAT) programs available to students that are directly linked to a future focused world and employment. To support the link to the world beyond school most of these programs are taught by industry experts who are teachers with links to a university, industry and an employer. Many of the programs have industry business partners working with the teachers and students such as Citi Group and the ABC.*

*These programs build and develop a student's intellectual capacity, ensuring that they have attained the necessary skills and ability to solve complex problems, develop and understand concepts and be the leaders of tomorrow. Many of the courses are at a university level with the students excelling through a highly supportive structure.*

*There is a significant focus on Science, Technology, Engineering and Mathematics (STEM) an area of significant need in the world, Media and Communications, the Creative and Performing Arts (Dance, Drama, Music, Art & Design) and development of leadership, courage and resilience through the Duke of Edinburgh International Award Scheme.*

*All courses ensure students build the essential skills and capacity to develop quality professional and personal relationships that are essential for life success. Successful employment as stated by great leaders, entrepreneurs, businesspeople and research requires our young people to have the ability to; collaborate and work successfully as part of a group or team within an organisation; develop solid positive, productive partnerships with clients or customers; and build a network to mutually benefit the individual and business.*

*Students who have participated in these courses have received State, National and international recognition. Examples of this includes National Computer Science in Schools, NSW State Championships, International recognition through the Duke of Edinburgh Award Scheme, Mentorships by national and multinational organisations such as Lend Lease, AXA Investment Managers, Citi Group/Bank, AMEX, The Australian Business Community Network (ABCN) and Microsoft.*

*All HPGE programs at Plumpton focus on the development of a Growth Mindset. For students to have a Growth Mindset, they should understand that trying harder - and trying new strategies – not helps them succeed at the current task but also assists them succeed in the future by strengthening their brain and confidence.*

*Tim Lloyd*

**Principal | Plumpton High School | NSW Department of Education**

**Former National Coach Gymnastics Australia | Coach of World Champion | Former Australian Principal of Year 2019**

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## Application Form Information

The Plumpton High School Gifted and Talented Clubs have a generic online application, scan the QR Code to open the online application.



Each club will require an individual version of the generic application form to be completed. If you do not have access to the online application, there are application forms at the back of the book to complete and submit to your school.

Please read the information and submit the application forms back as per the due date.

# Take a look at what we do:

Check out the school website to see **students** and **teachers** speaking about each of our **GAT programs**.



## Plumpton High School High Potential Gifted Education 2025 APPLICATION FORM PROCESS

### How to Apply

Please complete AND submit **ONE APPLICATION FORM PER GROUP/CLUB**

Complete the online application form at the QR Code below (**preferred method**):



If you are unable to access the form please complete the application form at the back of the book and return to **Plumpton High Schools Front Office** or **your Schools Front Office** by **Wednesday 19<sup>th</sup> February 2025**.

Please make sure all information is correct and a **valid email address** is supplied as this will be the main form of contact.

**Successful applicants will be notified of their place by email during week 5**

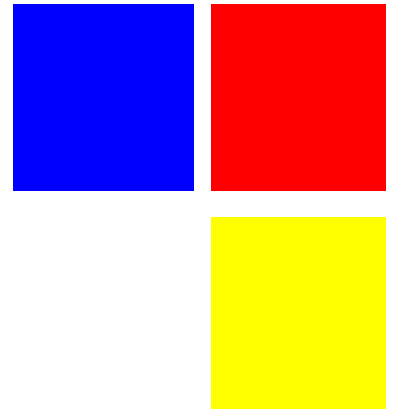
**PLEASE NOTE CLUBS PROGRAMS WILL COMMENCE BY TERM 1 WEEK 6**

**Please check emails for details**

If you have any questions please contact the **HPGE Coordinator Hayley O'Brien** on 96257020 or via email [hayley.obrien13@det.nsw.edu.au](mailto:hayley.obrien13@det.nsw.edu.au)



# Art & Design



## *Rationale*

The study of Art and Design is a combination of elements of both the Visual Arts course and Visual Design course where the students will be completing artworks. Each term the students will be working towards completing an artwork or designed work, where they will be working towards achieving learning outcomes which will develop their skills in researching and organising information, communicating ideas, planning and organising and working with others. This will require the students to work collaboratively and develop their communication and problem-solving skills where the students will be developing their understanding of and skills in art making and art appreciation.

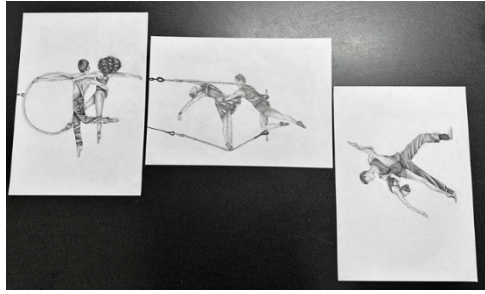
The High Potential Gifted Education Program for Art and Design (HPGEAD) as a part of the Plumpton Education Community aims to provide students with a deeper understanding and knowledge of Art and Design as an opportunity for self-expression and exploration of the world as a source of ideas. The students will be investigating the world as a source of ideas to make artworks for an audience, through this they will learn the value of art making and art appreciation and how as an artist the importance of the intention of the work for a specific audience. The students will learn how to engage with and work in contribute to the school and the wider community while working with clients for their projects.

The Art and Design program will provide the students involved with a range of experiences where they will focus on art making and appreciation and develop new skills across a range of modes such as Drawing, Painting, Printmaking, Sculpture, Ceramics Photography and Digital Media. In the Art and Design course students will be provided with the opportunity to experience Art and Design with a focus on either making projects in a range of forms, appreciating art, understanding subject matter, learning about influential artists to the project, analysing and interpreting artworks, understanding how the audiences or the world interpret art differently and how they are able to take on the role of the audience. The approaches to teaching and learning of Art and Design will be varied over the entire program so that the student's experiences working across a range of art making modes over the duration of the course. These opportunities also lead to culturally rich and imaginative learning experiences that assist students to enjoy and value the visual arts in their own lives.

## *Objectives*

### **Knowledge, understanding and skills**

*Students will develop knowledge, understanding and skills in Art and Design through:*



### 1. Art Making

Students will learn how to investigate and experience a range of material in art making and how to make artworks for the enjoyment of different audiences.

Students will learn how to make artworks informed by their investigations of the world as subject matter, use of expressive forms, and consideration of the audience for their works

### 2. Art Appreciation

Students realise the role of the artists and what artists do and the artists' intentions

Students learn about appreciating their own artworks and those of others, recognising the roles of artists, audiences and how the world can be interpreted.

### **Value and Attitudes**

*Students will value and appreciate their engagement in the study of Art and Design and working collaboratively with others how the visual arts, as a field of practice and understanding, is subject to different interpretations.*

**Teachers will report to parents on the student's competencies in the above facets.**

## *Reporting Procedure*

Teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes. These are descriptors of what students will know and be able to do as a result of studying the art and design program. The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

Visual Art and Design, as an area of the curriculum, is based on students learning about the Artist, Practice, Representation, Critiquing and Appreciation. Teachers use a range of strategies to collect information on the demonstration of skills and understanding which students exhibit in a variety of contexts. It is important to make judgements about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single demonstration. Similarly, a student will demonstrate that he or she can achieve the requirements of an outcome, in a number of different activities.

Judgements about student achievement of outcomes are made on the basis of evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- observing students during the process of making the work and the final product
- discussing with students their own work and the work of others
- interviewing individual students about their involvement in the collaborative work and the process of making
- collecting and analysing written work in art and design journals
- peer assessment and self-assessment

Teachers will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

# Selection Process

Students will be selected for the program through expression of interest.

Students who show expression of interest will be required to submit an artistic creation of their own making.

Students will be selected based on the following criteria:

- Demonstrates a high work ethic in their academic studies
- Have artistic and design ability.
- Demonstrates exemplary behaviour and self-discipline
- High level of school attendance

## What will each

### lesson look like?

**3:00pm – 3:20pm:**

*Warm up art and design activity*

**3:20pm – 4:00pm:**

*Art making on projects*

**4:00pm – 4:15pm:**

*Drink/Snack Break*

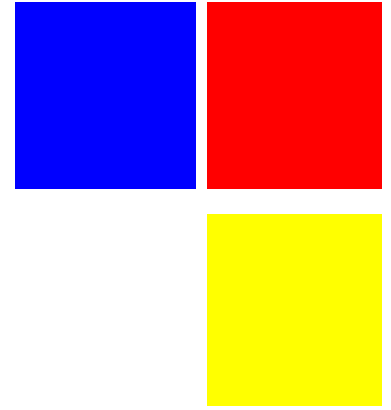
**4:15pm – 5:00pm:**

*Art marking and Pack up*

## Application Information

<b>Who is able to Apply?</b>	Any student in years 5-10 from the Plumpton Education Community, with a passion to learn Art and Design Skills.
<b>How to Apply?</b>	Students will need to submit an application to attend through Plumpton High School by the cut-off date on the form or return to their schools front office by the cut-off date. Sit a practical drawing and design assessment. Students will be notified in regards to their application.
<b>What is required?</b>	Students will be required to participate in the full two hour class every week.
<b>What does my child wear?</b>	Normal school uniform is appropriate and there will be aprons made available however, if you would like to send your child with a spare shirt to paint to avoid their school uniform potentially being damaged.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing one week after the application process whether they were successful or not for the program.

# *Why will the HPGE Art and Design be beneficial for my Child?*



This program offers the opportunity for students to develop their individual skills in understanding and appreciating art.

Your child will develop skills in:

- Art appreciation
- Problem solving skills
- Developing critical thinking skills
- Developing design skills
- Enhancing communication skills
- Working collaboratively.

The program will develop your child's interpersonal skills and communication with others by working in consultation with other students and the teacher. Your child will benefit from learning how to turn their ideas into a final product in collaboration with others to develop a product from their art and design brief.

## Meet the Teacher

**Miss Georgia Henry- Bachelor of Education / Bachelor of Arts (Visual Arts)**

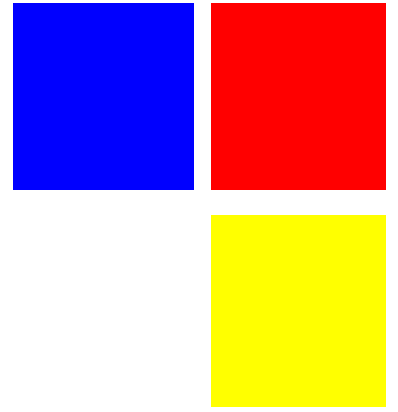
**Graduate of Australian Catholic University**

Miss Henry is new addition to Plumpton High School as of 2022. Miss Henry specialises in Visual Arts, Visual design , Photography & Digital Media. She has new and creative ideas surrounding art forms, materials, techniques, with an extensive knowledge in art history, and art making skills. Miss Henry is passionate to be passing on her knowledge and skills to future generations, and she is excited to help students develop independent, critical thinking and problem-solving skills through creative art making, developing each student's individual artistic practice.

Miss Henry ensures a safe, warm and welcoming classroom where students can flourish to form positive relationships with other student's across varying year levels. She ensures the value and importance of each students emotional, social and educational needs are being met at all times. The creative arts cater to each student's self-expression in artmaking.

Miss Henry ensures students build lifelong skills that are transferable to other subjects, and beyond the classroom.

# Dance



## Rationale

The study of dance as an artform is the philosophical base of the *Dance Years 7-10 and HSC Dance Syllabi*. 'Dance as an artform' determines the content and teaching approaches that are used in the teaching of dance as art in education and underpins the students' artistic, aesthetic and cultural education through dance. The Primary Dance syllabus provides students with a unique medium for learning and addresses a range of different learning styles. Dance provides students the opportunity to express their feelings, moods and ideas symbolically through movement.

The High Potential and Gifted Education Program for Dance (HPGED) as a part of the Plumpton Education Community aims to provide students with a deeper understanding and knowledge of dance as an artform. The HPGE will provide students with a personal expression and enjoyment through dance, learning about oneself, other people and the world and confirming cultural identity. Students will learn to value dance as a form of cultural expression related to cultural understanding, tradition, location, gender and through social and technological issues.

The program will develop student's knowledge, understanding and experience of dance as an artform through equal emphasis on the process of experience and end products. Students will learn both movement principles and stylised techniques, through problem solving and directed teaching. The development of creativity, imagination and individuality is emphasised equally with knowledge of theatre dance.

The integration of the practices of performance, composition and appreciation is a key feature of the dance syllabi and the elements of dance are the components that link the study of the practices. Students will learn the three elements of dance, being space, time and dynamics and will learn how to use these elements to increase their dance technique, performance quality and dance knowledge.

Safe dance practice is embedded through the practices to ensure that students are able to maintain safe, healthy and rewarding lives.

The HPGE provides students with a high quality performing arts education, with a focus on the development of a strong dance technique and performance skills and aims to educate, train and prepare students for the study of dance in years 7-12. The HPGE is an exclusive program offered by Plumpton High School with a fully qualified DEC Dance Teacher.

At Plumpton High School, students have the opportunity to study dance as an elective from years 7-12, this program gives students the opportunity to access the program earlier.

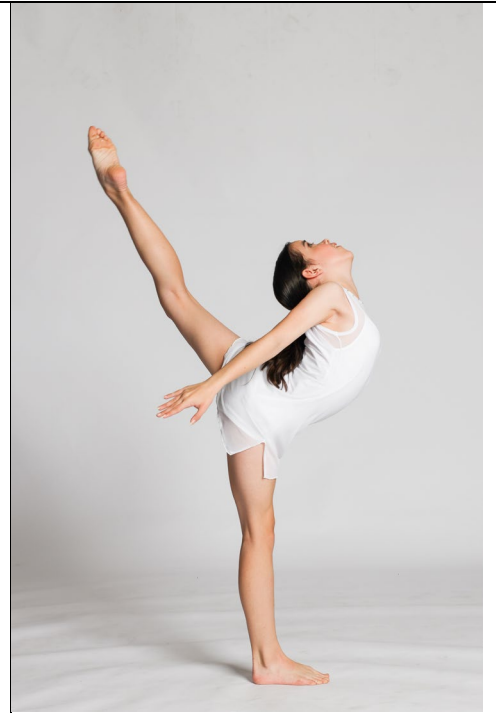
## Objectives

### Knowledge, understanding and skills

*Students will develop knowledge, understanding and skills about dance as an artform through:*







### 1 Dance Performance

as a means of developing dance technique and performance quality to communicate ideas.

Students learn about the technical and performance elements of dance.

### 2 Dance Composition

as a means of creating and structuring movement to express and communicate ideas.

Students learn how to create a dance with a theme or idea.

### 3 Dance Appreciation

as a means of describing and analysing dance as an expression of ideas within a social, cultural or historical context.

Students learn to evaluate and discuss a dance work.

#### Value and attitudes

*Students will value and appreciate their engagement in the study of dance as an artform.*

**Teachers will report to parents on the student's competencies in the above facets.**

## Reporting Procedure

Teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes. These are descriptors of what students will know and be able to do as a result of studying the dance program. The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

Dance, as an area of the curriculum, is based on students learning about performance, composition and appreciation, and learning to perform, compose and appreciate. Teachers use a range of strategies to collect information on the demonstration of skills and understanding which students exhibit in a variety of contexts. It is important to make judgements about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single demonstration. Similarly, a student will demonstrate that he or she can achieve the requirements of an outcome, in a number of different activities.

Judgements about student achievement of outcomes are made on the basis of evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- observing students performing dance sequences
- observing students during the process of composition
- discussing with students their own work and the work of others
- interviewing individual students about their own performance and their involvement in composing dance
- collecting and analysing written work in dance journals
- peer assessment and self-assessment

Teachers will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

# Selection Process

Students will be selected into the program through **audition only**.

Students who audition will be selected on the following criteria:

## Performance

- Intermediate/Advanced Dance Technique and Performance Quality
- Experience in a range of dance styles including classical ballet, contemporary, lyrical and jazz
- Experience in performing on stage or in front of an audience
- Ability to work both independently and as part of a team
- Understanding of their bodies and how they move in space

## Academic

- Demonstrates consistent attendance in school
- Demonstrates a high work ethic in their academic studies
- Demonstrates exemplary behaviour and self-discipline in class, during rehearsals and performances

## What will each lesson look like?

**3:00pm – 3:20pm:**

*Warm Up*

**3:20pm – 3:55pm:**

*Technique Exercises*

**3:55pm – 4:05pm:**

*Drink/Snack Break*

**4:05pm – 4:45pm:**

*Choreography*

**4:45pm – 4:55pm:**

*Performances*

*Analysing a dance work*

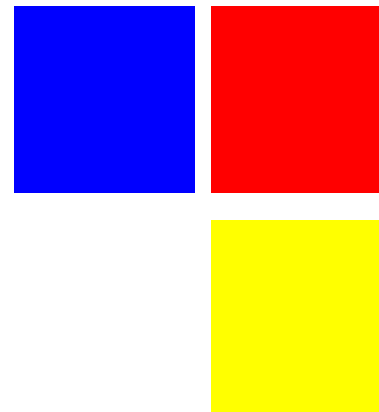
**4:55pm – 5:00pm:**

*Cool Down*

## Audition Information

<b>Who is able to Audition?</b>	Any student in years 5-12 from the Plumpton Education Community, who wish to excel, be challenged, and be a part of a dedicated school Dance group.
<b>How to Audition?</b>	Students will need to submit a signed permission note to your school office which will be collected. The students will be contacted by the teacher with an audition time that must attend to be considered for the course.
<b>What is required?</b>	Students will be required to participate in the full two-hour class.
<b>What does my child wear?</b>	Students are required to wear any clothing they are most comfortable in to be able to move around in.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing one week after the audition whether they were successful or not for the program.
<b>Where will the Audition take place?</b>	The audition will take place at Plumpton High School in the Performing Arts Centre.
<b>Are parents able to watch the application process?</b>	The application process is a closed audition and as such parents will not be permitted to watch the audition. There will be teacher supervision during the audition.

# Why will the GATD program be beneficial for my child



This year, HPGE Dance will have two separate groups: **Junior Dance Ensemble** offered to students from **years 5 to 8** and **Senior Dance Ensemble** offered for students from **years 9 to 12**. This will give students the opportunity to experience dance in a professional and educational setting with other likeminded students. Dance involves the development of physical skill as well as aesthetic, artistic and cultural understanding.

Learning in dance and learning through dance enables students to apply their own experiences to their study of dance. They learn to express ideas creatively as they make and perform dances, and analyse dance as works of art. They think imaginatively and share ideas, feelings, values and attitudes, while physically and intellectually exploring the communication of ideas through movement.

The HPGE is designed to complement and enhance the student's prior knowledge of dance and to work with the students towards their individual and goals. The program will provide students with; knowledge, skills and understanding about dance as an artform, the capacity for students to manage their own learning, the facility to work together with their peers towards a goal and respect for dance as an artform. Each lesson will be personalised to the students in the class and differentiation of the lesson content is available for student's individual learning needs.

The HPGE staff work in a nurturing environment provide students with the highest quality of teaching available.



## Meet the Teacher

Ms Kylie Nguyen – Bachelor of Arts (Major in Dance and Theatre with Distinction) and Bachelor of Secondary Education

- Graduate of the University of New South Wales
- UNSW Arts and Social Sciences Dean's List for Academic Excellence

Ms Nguyen is a Dance and Drama teacher who enjoys sharing her passion, knowledge and skills of the performing arts with students to instil a deeper sense of appreciation in creative learning.

Ms Nguyen is trained across a range of dance styles including classical ballet, modern, contemporary, lyrical, jazz and hip-hop. She specialises in teaching modern and contemporary dance techniques including Cunningham, Horton and Release. She was a member of the UNSW Cheerleading and Dance society and won awards in the contemporary, jazz and hip-hop category at the Australian All Stars National Championships.

# *Performance Opportunities*

The HPGE Dance group participates in a variety of performance opportunities every year including:

- Formal School Assemblies
- PULSE Alive Festival
- Synergy Dance Festival
- MADD Night
- Schools Spectacular
- State Dance





# Drama



## Rationale

Drama is an artform with a discrete body of knowledge including conventions, history, skills and methods of working. It is an integral aspect of our society and is taught in school curricula worldwide. Drama fosters an understanding of continuity and change, and of the connections between different times and cultures. It provides opportunities to explore social, cultural, ethical and spiritual beliefs, including the diverse values of Australian culture.

Drama encourages a cooperative approach to exploring the world through enactment. The collaborative nature of this artform engages students in a creative process of sharing, developing, and expressing emotions and ideas. It is a form of action in which students take on a role as a means of exploring both familiar and unfamiliar aspects of their world. They portray aspects of human experience while exploring the ways people react and respond to different situations, issues, and ideas.

In Drama, students can communicate in complex and powerful ways how they perceive the world. They can investigate, shape and symbolically represent ideas, interests, concerns, feelings, attitudes, beliefs and their consequences. Drama can reflect the external world and the inner world of thoughts and feelings through fictional contexts. Learning experiences in Drama are provided which involve the intellect, emotions, imagination and body, and engage the whole person. Self-confidence, motivation, and self-esteem are developed through the devising, work shopping, rehearsing, and performing of individual and collaborative works. This syllabus draws on the contemporary drama and theatre practices of making, performing, and appreciating drama. These practices are active, experiential, critical and reflective. While students develop knowledge, understanding and skills that pertain to each of these practices, it is vital to integrate experiences in these areas in order to effectively realise the outcomes. In their appreciation of drama and theatre, students are aware of the collaborative contribution of actors, directors, playwrights, designers and technicians to productions.

The GTPD provides students with a high-quality performing arts education, with a focus on the development of a strong understanding of dramatic styles, techniques and performance skills and aims to educate, train, and prepare students for the study of drama in Years 8-12. The GTPD is an exclusive program offered by Plumpton High School with a fully qualified DEC Drama Teacher.

At Plumpton High School students have the opportunity to study drama as an elective from Years 8-12, this program gives students the opportunity to access the program earlier.

## Objectives

### **Knowledge, understanding and skills**

*Students will develop knowledge, understanding and skills about Drama as an artform through the below:*





2023 HPGE Drama students exploring the playbuilding process of devising performances.



A 2022 HPGE Drama student production shot from their MADD Night performance of "The Burn Book".



Student Assistant Directors and Assistant Stage Managers running a Shrek: The Musical rehearsal.

### 1. Making Drama

Making processes that explores a range of imagined and created situations in a collaborative drama and theatre environment.

### 2. Performing Drama

Performing devised and scripted drama using a variety of performance techniques, dramatic forms and theatrical conventions to engage an audience.

### 3. Appreciating Drama

Appreciating the meaning and function of drama and theatre in reflecting the personal, social, cultural, aesthetic and political aspects of the human experience.

#### Value and attitudes

*The collaborative and diverse nature of drama and theatre*  
*The contribution of drama and theatre to enriching and sustaining cultures and societies.*

**Teachers will report to parents on the student's competencies in the above facets.**

## Reporting Procedure

The teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes. These are descriptors of what students will know and be able to do as a result of studying the drama program. The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

Drama, as an area of the curriculum, is based on students learning about making, performing and appreciating, and learning to make, perform, and appreciate. Teachers use a range of strategies to collect information on the demonstration of skills and understanding which students exhibit in a variety of contexts. It is important to make judgements about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single demonstration. Similarly, a student will demonstrate that he or she can achieve the requirements of an outcome, in a number of different activities.

Judgements about student achievement of outcomes are made, based on evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- Observing students performing
- Observing students during the process of making
- Discussing with students their own work and the work of others
- Interviewing individual students about their own performance and their involvement in making drama
- Collecting and analysing written work in drama logbooks
- Peer assessment and self-assessment

Teachers will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

## Selection Process

Students will be selected into the program exclusively through an audition process.

Students who audition will be considered and selected based on the following criteria:

### Practical

- Level of performance skills
- Level of dramatic technique
- Movement style
- Ability to collaborate on and off stage as part of a team
- Understanding of their bodies and how they move in space

### Academic

- Demonstrates a high work ethic in their academic studies
- Demonstrates exemplary behaviour and self-discipline in class and during rehearsals and performances

## What will each lesson look like?

HPGE Drama will run for 2 hours after school from 3-5pm. Students will be given a short 15min drink and snack break from roughly 4pm to 4:15pm.

Students should bring a drink bottle of water to lessons as activities include physical work.

Students will engage in individual and collaborative tasks exploring Making, Performing and Appreciation aspects of Drama, as well as developing theatrical skills through warm up activities and skill-based games. Work on the aspects of Drama will include exploring scripted and unscripted work as well as watching and discussing other dramatic works.

## Audition Information

<b>Who is able to Audition?</b>	Any student in Years 5-10 from the Plumpton Education Community, with a passion to learn Drama.
<b>How to Audition?</b>	Students will need to submit a signed permission note to your school office which will be collected. The students will be contacted by the teacher with an audition time that must attend to be considered for the course.
<b>What is required?</b>	Students will be required to participate in the full two-hour class. No preparation is required. Auditions will be in a workshop format of warm-up; movement and improvisation skills.
<b>What does my child wear?</b>	Students are required to wear any clothing they are most comfortable in to be able to move around in.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing one week after the audition whether they were successful or not for the program.
<b>Where will the Audition take place?</b>	The audition will take place at Plumpton High School in the Greater Western Sydney Performing Arts Centre (GWS).
<b>Are parents able to watch the application process?</b>	The application process is a closed audition and as such parents will not be permitted to watch the audition. There will be teacher supervision during the audition. Please note that the outcome of the audition process is final.

# Performance Opportunities

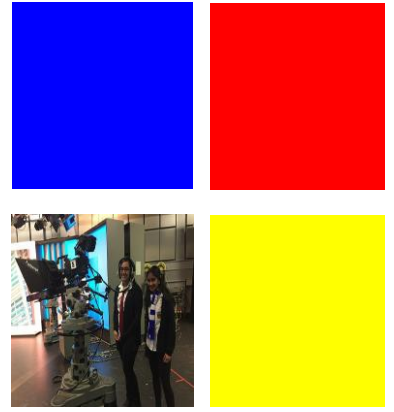
There is a variety of performance opportunities available for the PEC drama group including:

- Mount Druitt – Minchinbury Public Education Concert Formal Assemblies
- MADD Night
- PULSE
- School Spectacular
- Drama Showcases
- 2025 Plumpton High School Musical
- Musical Theatre Club
- Performance based excursions
- Access to outside of school performance opportunities
- School Performances



*Plumpton High School's cast of **Shrek: The Musical** in 2023*

# Debating, Public Speaking and Storytelling



## Rationale

Effective debating is a crucial skill that enhances our ability to communicate and engage with others, particularly in an increasingly interconnected and globalised society. As we progress further into the 21st Century, the importance of articulate and persuasive argumentation becomes ever more apparent. Debating transcends simple discussions; it encompasses the art of presenting ideas, defending positions, and critically engaging with differing viewpoints.

Plumpton High School is embracing these evolving educational needs by expanding the Debating and Public Speaking program, which will empower students to refine their argumentative skills and become confident communicators in a variety of contexts. This initiative aims to deepen students' understanding of the structures and strategies involved in effective debating, including how to construct logical arguments, rebut in detail and systematically, and engage respectfully in the multitude of perspectives on real-world issues. It will also prepare students for participation in the state debating and public speaking competitions: The Premier's Debating Challenge (PDC) and the Plain English Speaking Award (PESA). Students will learn the theory behind successful debating practices, supported by academic coursework that prepares them for real-world applications.

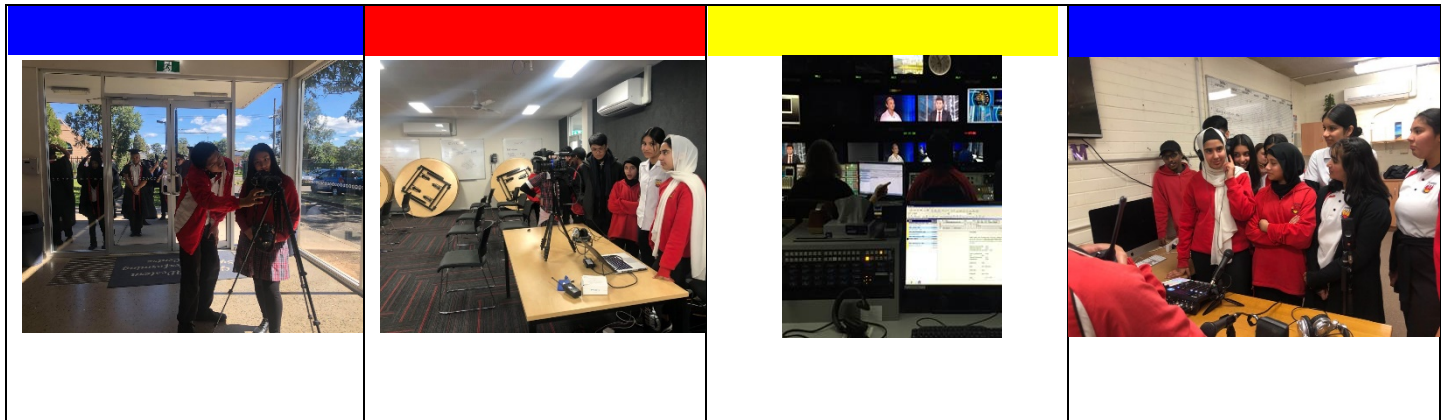
Participation in this program will enhance students' collaborative skills within the Debating Team, at Plumpton High School, and in the broader Plumpton community. Students will benefit from additional learning opportunities that will equip them with the tools to harness their potential as future leaders and critical thinkers. Selected students will engage in debates on a range of topics, developing their ability to think on their feet and articulate their thoughts clearly, whether in formal competitions or casual discussions.

The Debating program at Plumpton High School is an exciting opportunity for students to actively contribute to its development and growth. In addition to debating skills, students will cultivate important attributes such as creative thinking, innovation, and commitment. Mastering the art of debate is one of the most valuable skills both within the school environment and beyond. Being part of the Debating Team allows students to develop and enhance their communicative abilities in a dynamic, supportive, and structured setting, preparing them for success in their academic and professional futures.

## Objectives

*Students will appreciate the complexity and depth of verbal communication and exchange, while also fostering personal, social and intellectual development, gain valuable experiences in school and workplace situations as well as life skills. Students will grow in confidence and become more aware of their local and global community, transforming them into responsible and informed young adults.*





<p><b><u>Term 1: Public Speaking</u></b></p> <p>To build individual confidence and school leadership capability!</p> <p>Through interactive workshops, practical exercises, and constructive feedback, participants will learn essential skills such as speech writing, body language, and audience engagement.</p> <p>Through internal finals, students will be selected to participate in the regional finals of PESA.</p>	<p><b><u>Term 2: Debating</u></b></p> <p>To build collaborative team skills and confidence in impromptu speaking.</p> <p>Through training sessions on the rules, strategies and content of debating, students will have the opportunity to enhance existing skills and develop their teamwork.</p> <p>Students will be provided with ample opportunities to practice '1 hour prep' scenarios and practice real debates.</p>	<p><b><u>Term 3: Debating</u></b></p> <p>Students will continue to develop their skills in forming cases, developing arguments and offering rebuttal.</p> <p>Coaching sessions will focus specifically on preparing students for Premier's Debating Challenge rounds and providing feedback after the debates.</p>	<p><b><u>Term 4: Storytelling</u></b></p> <p>At the conclusion of the debating and speaking competitions of the year, students will have the opportunity to practice their narrative presentation skills.</p> <p>Using the structure of <u>The Moth</u> and <u>Story Club</u>, students will work on both their narrative writing and delivery skills.</p>
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## Application Information

<p><b>Who is able to apply?</b></p>	<p>Any student from Plumpton High School in Year 7 to Year 11, with a passion to learn journalism skills, become active in the school community and learn exciting new skills.</p>
<p><b>How to Apply?</b></p>	<p>Students will need to submit an expression of interest to apply by <b>Monday Week 2, Term 1 2025</b>. Students will be notified in regards to their application and then provided an opportunity to sit for the interview.</p>
<p><b>How much will it cost?</b></p>	<p>There is no initial cost to being a member of the Debating and Public Speaking Group. Students will be encouraged to go on numerous excursions and this may incur fees for students. However, they will be given sufficient notice of such events in line with the school excursion policies.</p>
<p><b>When will the course run?</b></p>	<p>Media and Communications will begin work in early 2025 and will function as a working part of Plumpton High School all year round. The program will run after school, with the day being determined and communicated at the start of 2025.</p>

***Assessors will report to parents on the students' competencies under the above criteria.***



## Selection Process

Students will be selected for the program through an expression of interest process.

Students who show expression of interest will be required to complete a short entry form. Students will be selected based on the following criteria:

- Demonstrates a high work ethic in their academic studies
- Demonstrates exemplary behaviour and self-discipline
- High level of school attendance

Students will be required to sit a short interview where the following two questions will be asked:

1. *What do you wish to achieve as a member of the Plumpton High School Debating and Public Speaking team?*
2. *How will participating in Plumpton High School Media and Communications team benefit you and your future studies?*

## What will I be involved in?

### What's in it for me?

- *Leadership Skills*
- *Team Management*
- *Celebrating Achievement*
- *Time Management*
- *Communication Skills*
- *Confidence Public Speaking*
- *Analytical Writing Skills*
- *Critical Thinking*
- *Inter-School Competitions*

## 2024 Activities and Achievements

**There are a variety of activities that were undertaken and achievements that were made in 2024 by the Plumpton High School Debating Teams:**

Annacemone Nashid selected as a member of the Western Sydney Team at the Junior State Debating

Championships

Participation in Stage 4 and Stage 5 Premier's Debating Challenge

Participation in the Local Finals of the Junior and Senior Plain English Public Speaking Competitions

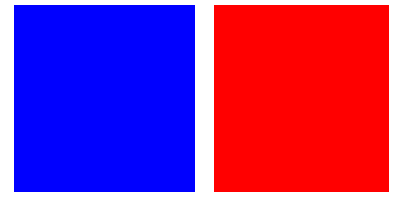
Selected to compete in Western Sydney Finals of the Junior and Senior Plain English Public Speaking Competitions

MCs of the Synergy Western Sydney Dance Festival

Excursions to the State Final of the Plain English Speaking Award and Premier's Debating Challenge

Participation in the Western Sydney Model United Nations Summit

# Why the Plumpton Debating and Public Speaking Team?



- Develop your leadership and critical thinking skills
- Enhance your CV through development of enterprise skills
- Challenge yourself and have an adventure to assist in developing a school culture of debating and public speaking
- Learn new skills and follow interests to understand the importance of intellectual, physical and emotional balance to achieve personal wellbeing
- Develop communication skills and make some more friends
- Increase your self-confidence and courage
- Have great fun!
- Meet new people and develop a personal commitment to service, and act to make a positive difference to the lives of others



## Meet the Teacher.

### Ms Alice Dixon

**Bachelor of Arts (Hons) in English, History and Anthropology**

**Master of Teaching in Secondary Education**

Ms Dixon is an English, History and Aboriginal Studies Teacher with 12 years teaching experience. She has taught in both Western Sydney and South London.

As a school and university student, Ms Dixon competed in debating and public speaking competitions. She competed at the Junior State Debating Championships and was a state semi-finalist with her school team in the Premier's Debating Challenge. Ms Dixon was also the runner-up at the State Final of the Plain English Speaking Award. At university, Ms Dixon was a member of the Sydney Uni varsity team, competing at national and international tournaments as both a speaker and adjudicator. As a teacher, Ms Dixon has worked in both NSW and international school settings. Furthermore, she has worked with the NSW DoE's Arts Unit, running debating camps, adjudicating at a state level and developing training packages for students and teachers.

Ms Dixon is excited to collaborate with the students of Plumpton High School to deliver high quality debates and speeches.

# Duke of Edinburgh

## Rationale

The Duke of Ed is an enriching program that invites young people between the ages of 14 and 25 to participate in a number of activities over a set length of time and has three levels to achieve Bronze, Silver and Gold. Participation in the Bronze level is mandatory in Year 9 and is structured so participants can design their own unique program centred on their interests and passions within their PDHPE class.

The Duke of Edinburgh program provides opportunities for all students regardless of their abilities, to develop individual goals based on their interests and ambitions. It engages over 55,000 young people annually to challenge, motivate and explore student potential. It is not easy, but is very rewarding.

The purpose of the Duke of Ed program is to promote and preserve a framework of Award participation that equips, engages, and empowers all young people to explore their potential in areas of adventure journeys, community service, developing a skill and continuing to build physical activity. This program aims to move students beyond their comfort zone to gain a sense of real-life achievement and self-confidence.

Throughout the year students will be provided the opportunity to achieve the Bronze level that will include two, 1 night 2-day adventurous journeys. Which Plumpton High School encourages all individual regardless of ability, gender, culture, background, or location, with the right guidance and inspiration to achieve an Award. Alongside the journey participants complete an hour a week on physical recreation, building a chosen skill and community service. These all get achieved within activities and programs coached through the year together in groups or of their individual accord.

The Duke of Ed at Plumpton High School will deliver a balanced framework to develop the students mind, body, and community spirit by engaging them in a range of different activities and skills.

The Duke of Ed Award inspires individuals to exceed their expectations. Plumpton High School encourages students to set their own challenges and goals before starting an activity, aim for these goals and by showing improvement to achieve the Award.

The Duke of Ed National Office is committed to monitoring the processes, policies, and procedures to maximize the safety of The Duke of Ed for all participants and volunteers. As such, Plumpton High School embeds strict child protection policies to all assessors, adopts detailed Risk Management plans and provides brand new cellular emergency equipment for adventurous journeys.

At Plumpton High School students can utilise the skills and knowledge they have learnt throughout the program to help them with the School Executive Council and HSC courses. The Duke of Ed also compliments many other activities that young people may already be doing which could include: Surf Life Saving, Scouts or Guides, music lessons and team or individual sport.



# Objectives

Students will foster personal and social development, gain valuable experiences and life skills, grow in confidence and become more aware of their environment and community, transforming them into responsible young adults. This is achieved through:



## 1. Community Service

To connect with your community and give service to others and their communities.

Students give back to the surrounding community whether it is care and concern for the environment, love of animals or a desire to make a difference to the lives of the less fortunate.

## 2. Physical Recreation

To improve your physical fitness and wellbeing by becoming active.

Students participate in regular physical activity, either alone or in competition, to develop healthy fitness habits.

## 3. Skill

To unleash your talents and broaden your personal interests and skills.

Students explore and discover talents based on individual interests or passions such as artistic, creative, musical, academic or technical.

## 4. Adventurous Journey

To discover a spirit of adventure and discovery whilst undertaking a journey in a group.

Students will undertake an expedition or exploration in an unfamiliar and challenging environment. This is about team work and social connections with the group

## 5. Residential Project

At the heart of the Gold Residential Project is the undertaking of purposeful experience with people who are not their usual companions, working towards a common goal! Adding to this, the young person is also outside of their usual place of residence, often in an unfamiliar environment. It is hoped that the Gold Residential Project rewards Gold Award Participants with a sense of personal achievement, enhanced social connection with new and interesting people, and a truly life changing experience! This The level is aimed at students of a minimum age of 16.





## Bronze Level

Plumpton High School is offering completion of the Bronze Award in 2021 for all year 9 students. The Duke of Edinburgh Bronze Award program will provide students enough confidence, resources, experience, and knowledge to achieve the award within the first year. Students meeting the age requirements below can participate in the Bronze Level. The minimum age to start - 14 Years and the maximum age to start - 24 Years 6 Months. The Bronze level program includes the time requirements shown below which need to be met prior to completing the level.

## Silver Level

The Silver Award is the second level of the Duke of Edinburgh's International Award, which involves continual work in the four areas for a longer period and starts during year 10 for students of a minimum age of 15. The progression into the Silver Award recognises that every individual learner is different and as such encourages students to look at themselves, their interests, abilities, and ambitions to then set challenges in the four different sections. Students can continue expanding on their skills throughout the sections of the award they completed in the Bronze level or use this level as a new opportunity to start something new and fresh. Students are required to further explore the outdoors with longer, more student focused, Adventurous Journeys. The Silver Award will be running as an after-school class for 1-2 hours per week. This will include teaching required topics, learning skills and monitoring progress online being a more student driven level compared to Bronze. Once the Silver level is completed the Gold level is next to complete. Ask the Duke of Ed coordinator of this when you are ready!

## Gold Level

The Gold Award is the third and final level of the Duke of Edinburgh's International Award which involves continual work in the four areas for a minimum of 12 months and starts at the beginning of year 11 and carries into year 12. During the Gold Award participants are also tasked with an additional section called the "Residential Project". The transition to the Gold Award acknowledges the unique qualities of each learner, encouraging them to reflect on their individuality, interests, talents, and aspirations. It inspires students to establish challenges across five distinct sections based on these aspects. Participants can build upon skills from the Silver level or embark on new endeavors. The Gold level mandates more extensive and student-centered Adventurous Journeys, emphasizing outdoor exploration. The Gold Award will be offered as an after-school class, meeting 1-2 hours weekly. It will cover essential topics, teach skills, and monitor progress online, fostering a student-driven approach distinct from the Silver level.

## Qualifying

For both awards regular commitment is defined as 1 hour per week or 2 hours per fortnight spent completing physical recreation and practicing a skill. This regular participation will be monitored by a teacher assessor. The service component of the Bronze Award will offer students work as a team to implement and run a program within the school. The service component of the Silver Award will be discussed with a teacher assessor at the beginning of the course.

### Bronze Award

- Physical Recreation – Minimum of 6 months
- Skill – Minimum of 3 months
- Service – Minimum of 3 months
- Practice Adventurous Journey - 2 days + 1 night
- Qualify Adventurous Journey - 2 days + 1 night

### Gold Award

- Physical Recreation – Minimum of 12 months
- Skill – Minimum of 12 months
- Service – Minimum of 12 months
- Practice Adventurous Journey – 4 days + 3 nights
- Qualify Adventurous Journey – 4 days + 3 nights

### Silver Award

- Physical Recreation – Minimum of 6 months
- Skill – Minimum of 6 months
- Service – Minimum of 6 months
- Practice Adventurous Journey - 3 days + 2 nights
- Qualify Adventurous Journey - 3 days + 2 nights





# Selection Process

Bronze Award students will be completing the level within their PDHPE class at the beginning of the year and throughout. Silver and Gold Award students will be selected for the program through expression of interest. Students who show expression of interest will be required to complete a short entry form. Students will be selected based on the following criteria:

- Demonstrates a high work ethic in their academic studies
- Demonstrates exemplary behaviour and self-discipline
- High level of school attendance
- Completed Silver (Gold Award only)

# What topics are taught?

- *First Aid*
- *Leadership skills*
- *Group Management*
- *Dangers in explorations*
- *Route Planning*
- *Navigation*
- *Shelter/Fire*
- *Knots*
- *Food/water Preparation*
- *Cooking*
- *Interpreting weather*
- *Equipment/clothing*
- *Communication*
- *Emergency procedures*
- *Environmental care*

## Additional Information

<b>Who can apply?</b>	Any student from Plumpton High School in Year 9 to Year 12, with a passion to learn outdoor skills, become active and discover exciting new adventures.
<b>How to Apply?</b>	Year 9 students will be offered the course Term 1 2023. Silver Award students will need to submit an expression of interest to the Duke of Edinburgh coordinator at the conclusion of their Bronze level. Gold Award students will need to submit an expression of interest to the Duke of Edinburgh coordinator at the conclusion of their Silver level.
<b>How much is the Duke of Ed registration?</b>	Bronze – Year 9 registration fee covered by the school. Silver – Year 10 Onwards = \$250.00. Gold – Year 11 Onwards = \$250.00.
<b>When will the course run?</b>	Year 9 Bronze level students – during selected classes unless the students wishes to use an outside assessor. Silver/Gold Award students - Wednesday afternoon between 2:45 - 4:00pm each week. (Subject to change due to other GAT programs running simultaneously)
<b>What personal equipment is required for the adventurous Journey?</b>	Basic camping equipment such as tents and cooking gear will be supplied for students without access to gear. However, students are encouraged to start purchasing their own equipment for better comfort and hygienic purposes. As a minimum all students will be required to supply their own items such as: <ul style="list-style-type: none"> <li>• Sleeping Bag</li> <li>• Appropriate Clothing</li> <li>• Walking Shoes</li> <li>• Backpack</li> <li>• Sunscreen</li> <li>• Water Bottle</li> <li>• Appropriate Food</li> </ul>

*\*further information will be provided before the adventurous journey*



# 2016 - 2024 Activities and Achievements

There are a variety of activities that were undertaken and achievements that were made throughout

2016 - 2024 as part of the Duke of Edinburgh Scheme program, including:

- |  |  |
|--|--|
| <i>Navigational Photo Challenge</i>                | <i>Assessed Adventurous Journey</i>  |
| <i>Basic First Aid and Camp-craft Training</i>     | <i>After School Sports Programs</i>  |
| <i>Bronze Hike- Heathcote National Park</i>        | <i>Premier's Volunteer Recognition Program Award</i>   |
| <i>Silver Hike – The Great North Walk</i>          | <i>2023 Whole Year Model Australian Champions</i>  |
| <i>Gold Hike – Nothern Territory/Alice Springs</i> | National Supporters dinner attended by His Royal Highness<br>The Prince Edward, Duke of Edinburgh KG GCV |

**Student Achievement: 242 students have successfully received their Bronze Award to date.**  
**34 students have successfully received their Silver Award to date.**

**Previous Year 9 students attending their adventurous journey  
for their Bronze Awards**





# Why the Duke of Edinburgh Award?



- Develop leadership and thinking skills
- Enhance your ability to attend University
- Enhance your CV through development of enterprise skills
- Increase your self-confidence and courage
- Design your own individual program
- Challenge yourself and have an adventure to assist in developing your natural curiosity
- Learn new skills and follow interests to understand the importance of intellectual, physical and emotional balance to achieve personal wellbeing
- Develop communication skills and make some more friends
- Have great fun!
- Meet new people and develop a personal commitment to service, and act to make a positive difference to the lives of others
- Receive a prestigious and highly valued International Award

This program offers the opportunity for students to maintain physical recreation that they are currently participating in. It allows students to expand their knowledge, attitude and to adopt new types of physical recreation and/or sports.

Students will be provided the opportunity to adopt, perfect or continue learning a type of skill. This skill type is completely up to the students' interest and can range from many aspects of the student's interest. The Duke of Ed encourages students to try something new to experience versatility in learning and applying a new skill set.

Plumpton High School encourages all students to give back to the community. This program compliments this through the requirement of volunteering. Student will be giving back to the local community through charity work.

## Meet our Coordinators

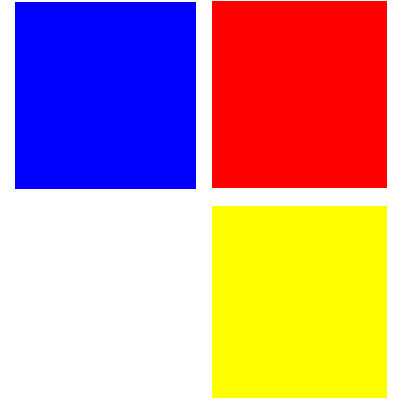
Mr Liam Canning is a PDHPE & Positive Psychology teacher at Plumpton High School. His passion and drive focusses on student development in physical activity, health, and student wellbeing. He is keen to encourage students to develop personal skills, contribute to the community and attain a sense of achievement through the Duke of Edinburgh Scheme.



Ms Tahlia McKenzie is a PDHPE, Science & Positive Psychology teacher at Plumpton High School. She seeks to create innovative learning environments by encouraging questioning, supportive culture emphasising students' wellbeing, never limiting our goals for improvement, and focusing on finding the path that suits individuals. She is excited to build students capacities, as individuals, groups and positive members of the community through the Duke of Edinburgh Scheme.



# Experimenting with STEM



## *Rationale*

STEM is an all-encompassing term referring to a range of fields (Science, Technology, Engineering and Mathematics). The study of STEM is often broken down, with a strong focus on one of the four subject areas. The aim of the experimenting with STEM is to expose students to a variety of skills and knowledge from across these subject areas, with no particular focus on one area or the other.

The global economy is changing. Current jobs are disappearing due to automation and new jobs are emerging every day as a result of technological advances. Employer demand for STEM qualifications and skills is high and will continue to increase in the future. Currently, 75% of jobs in the fastest growing industries require workers with STEM skills and 50% of current jobs with skill shortages are in STEM fields. STEM empowers individuals with the skills to succeed and adapt to this changing world.

The High Potential and Gifted Education Program for Experimenting with STEM, as a part of the Plumpton Education Community, aims to provide students with a deeper understanding of the interconnectedness of STEM disciplines and to develop student's capabilities across these areas. Students will be exposed to a range of theoretical and practical experiences with a focus on developing skills which can be applied across fields, including problem solving, creativity, critical analysis, initiative, communication skills, collaborative skills and independent thinking.

Each term students will work collaboratively and independently to apply scientific principles to the design process in the development of solutions which respond to real world problems. Students who have participated in experimenting with STEM have had much success by developing a range of technological solutions to contemporary problems by developing electrical circuits, constructing models, utilising renewable energy sources, and many scientific based problem-solving activities including tackling global warming and managing resources. Students learn about how the world around them is affected by a range of factors and how we gain access to and develop materials for use. In Experimenting with STEM, students are encouraged to demonstrate their own creativity and problem-solving skills, with the opportunity to then develop these ideas into a real product or solution.

## *Objectives*

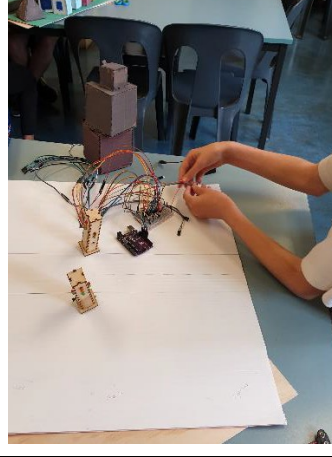
### **Knowledge, understanding and skills**

*Students will develop knowledge, understanding and skills in STEM through:*



**SCIENCE**

Science is the study of the natural world. With the understanding of what already is, we can inform our thinking towards the future. Students will develop an understanding of existing systems in the development of their projects.



**TECHNOLOGY**

Technology is the tools we develop from scientific understanding to overcome problems or simplify our lives. Students will be exposed to a range of technologies in the development of their solutions.



**ENGINEERING**

Engineering focuses on designing and building things to solve real world problems. Students will be given the opportunity to turn their ideas and solutions into real world products through design and building.



**MATHEMATICS**

Mathematics is a language used to describe the world we live in. Students will utilise mathematics to describe the theoretical underpinnings of their designed solutions, including measurements and calculations.

**Values and Attitudes**

*Students will value and appreciate their engagement in the study of Problem Solving and Data Science. Working collaboratively with others, as a field of practice and understanding, is subject to different interpretations.*

**Teachers will report to parents on the students' competencies in the above facets.**

***Reporting Procedure***

The teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes, which are descriptors of what students will know and be able to because of participating in the HPGE STEM. The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

STEM, as an area of curriculum, is based on students' learning about how mechanisms and machines work, how the design process work and how to apply scientific principles across a range of contexts to develop real world solutions. Teachers use a range of strategies to collect information on the demonstration of skills and understanding which students exhibit. It is important to make judgments about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single project. Similarly, a student will demonstrate that they can achieve the requirements of an outcome in several different activities. In completion of this course students have earned success in a multitude of problem-solving activities and a range of Science and Engineering challenges and projects.

Judgements about student achievement of outcomes are made based on evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- Observing a student's application of techniques in a practical project
- Examining the quality of the student's product
- Examining the functionality of the student's product
- Student self and peer assessment
- Collecting and analysing project folios

The teacher will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.



# Selection Process

Students will be selected for the program through expression of interest.

Students who show expression of interest will be required to complete a short entry form.

Students will be selected based on the following criteria:

- Demonstrates a high work ethic in their academic studies
- Demonstrates exemplary behaviour and self-discipline
- High level of school attendance

## What will each

### lesson look like?

**3:10pm – 3:30pm:**

*New learning related to the science and technology topic*

*OR Group Challenges*

**3:30pm – 4:00pm:**

*Group/Individual activities*

**4:00pm – 4:15pm:**

*Drink/Snack Break*

**4:15pm – 4:55pm:**

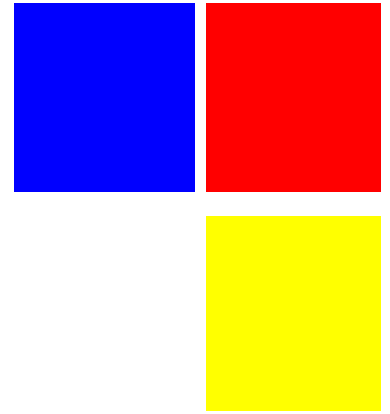
*Continuation of activities*

*and group discussions*

## Application Information

<b>Who is able to Apply?</b>	Any student in years 5-8 from the Plumpton Education Community, with a passion for learning about a range of STEM areas.
<b>How to Apply?</b>	Students will need to submit an application to attend through Plumpton High School by the cut-off date on the form or return to their school's front office by the cut-off date. Students will be notified in regards to their application.
<b>What is required?</b>	Students will be required to participate in the full two-hour class every week.
<b>What does my child wear?</b>	School uniform and leather shoes.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing one week after the application due date, whether they were successful or not for the program.

# *Why will HPGE STEM be beneficial for my Child?*



Experimenting with STEM program offers the opportunity for students to use 21<sup>st</sup> century tools related to all things Science and Technology. It allows students to expand their knowledge and attitude and to gain new skills that will enable them to build relationships within the school and the wider community. This Program will give an opportunity for students to learn a range of different skills in Science, Technology, Engineering and Mathematics to develop way of thinking which can be used in everyday life and strengthen students' problem solving and analytical skills.

Your child will develop skills in;

- Reasoning
- Problem solving
- Developing critical thinking
- Logical thinking
- Developing design skills
- Enhancing communication skills
- Working collaboratively
- A range of areas of STEM including Science and Engineering.

The program will be developed for your child to develop their interpersonal skills and communication with others by working in consultation with others. Your child will benefit from learning to identify patterns, thinking logically and communicate recommendations.

## Meet the Teacher

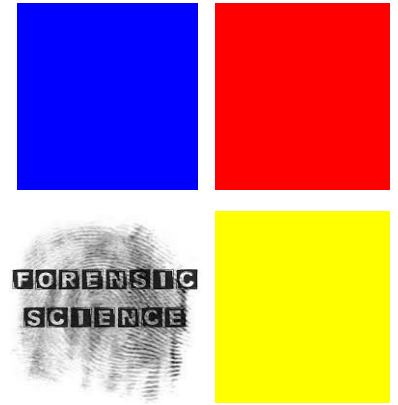
**Mr Suhaib Ghazanfar – Bachelor of Science / Masters of Teaching from Western Sydney University.**

Mr Ghaz has been working at Plumpton High School for 3 years teaching a range of senior and junior sciences. He is a science graduate with a huge passion for science and technology particularly in the areas of physics and biology.

He is thrilled to have the opportunities to share his passion of all things STEM with all students. Mr Ghaz hopes to strengthen connections between school work and how the world around them actually works, from the smallest atoms to the largest structures on the planet. He believes creating a safe environment for students to explore, experiment, and discover, is key to effective learning.

He hopes that he can spark the same interest in STEM that he has and is excited about the possibility of helping students discover their passion.

# Forensic Science (STEM)



**Science Technology Engineering Mathematics**

## Rationale

Forensic Science is a vital component in our legal system in society. There are several types of forensic scientists all with a common goal; to use their knowledge to collect, examine and report on evidence for legal proceedings. In order to do so, they must develop analytical and problem-solving skills.

As part of the Plumpton Educational Community, the High Potential Gifted Education Forensic Science program aims to allow students to delve deeper into the career of a forensic chemist and biologist as well as explore technologies in forensics used in modern society using a STEM (Science, Technology, Engineering and Mathematics) approach. In doing so, they will acquire an understanding of scientific investigations, legal proceedings and will debunk myths portrayed in crime shows. This will allow students to perceive how a range of different forensic scientists work and how this field has developed over history as well as where it is headed for the future. They will be able to analyse the importance of the development of this field to its role in legal proceedings.

The program will allow students to explore the idea of forensics from the perspective of the four disciplines of STEM.

Looking at the range of divisions of scientists involved in forensic science will give students an understanding of how a crime is solved in the real world in real time. The knowledge that they attain will give students an understanding of a career path in these fields.

This program will offer students a high-quality Forensic Science experience with a focus on forensic chemistry, forensic biology and technologies that will prepare students for further study in Science (Years 7-10) and Chemistry & Biology (Years 11-12). The High Potential Gifted Education Forensic Science program is an exclusive program offered by Plumpton High School and will be taught by a qualified DEC Science teacher.

## Objectives

### Knowledge, understanding and skills

*Students will develop knowledge, understanding and skills of Forensic Science through:*



### **1. Forensic Chemistry**

Forensic chemistry is the application of chemistry in a legal setting.

Students will be exploring a range of techniques to analyse evidence in the context of a chemist. They will see how these techniques are used to collect specific information from evidence to aid in legal proceedings.

Students will learn about toxicology, chromatography, DNA fingerprinting, flame tests and chemical analysis of powders, paints and fuels.

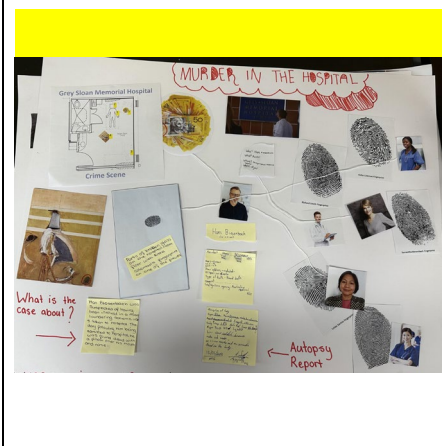


### **2. Forensic Biology**

Forensic biologists use scientific techniques in the laboratory to examine evidence such as hairs, insects, bones, bodily fluids, plant and animal remains in order to provide information of a case in a legal setting.

Students will be examining some of the evidence listed using a variety of different techniques in order to see what information can be collected and used for a case.

Students will learn about DNA analysis, examination of bones, entomology, and botany.



### **3. Analysing Data and Information**

To make breakthroughs in cases, forensic scientists need to be able to analyse a range of evidence such as testimonies, records, letters, social media messages/posts and much more.

Students will look at how different types of information about suspects, victims, and witnesses of a case, as well as the importance of this information in an investigation.

Students will learn about different data and information are collected, analysed, and used to progress in an investigation and how they are used to solve cases.

***Assessors will report to parents on the students' competencies under the above criteria.***

## ***Reporting Procedure***

The teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes, which are descriptors of what students will know and be able to do as a result of participating in the High Potential Gifted Education Forensic Science program. The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

Science, as an area of curriculum, is based on students learning about physical, chemical and biological phenomena and how they apply to the world around us. Teachers use a range of strategies to collect information on the demonstration of skills and understanding which students exhibit in a variety of contexts. It is important to make judgments about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single investigation. Similarly, a student will demonstrate that they can achieve the requirements of an outcome in a number of different activities.

Judgments about student achievement of outcomes are made on the basis of evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- Observing a student's application of techniques in several investigations
- Examining the quality of the student's reports
- Student self and peer assessment
- Collecting and analysing student investigation notes

The teacher will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

# Selection Process

Students will be selected for the program through expression of interest.

Students who show expression of interest will be required to complete a short entry form. Students will be selected based on the following criteria:

- Demonstrates a high work ethic in their academic studies
- Demonstrates exemplary behaviour and self-discipline
- High level of school attendance

## When and Where?

This class will held in the Science laboratories at Plumpton High School on Thursday afternoon from 3.00pm to 5.00pm



# What topics are taught?

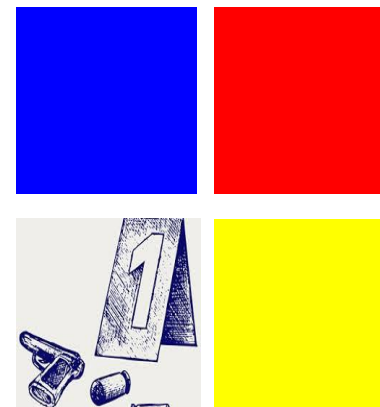
- *Toxicology*
- *Pathology*
- *Computer Forensics*
- *DNA Fingerprinting*
- *Entomology*
- *Forensic Anthropology*
- *Forgery Detection*
- *Flame Tests*
- *Fibre Analysis*
- *Fluids Analysis*
- *Blood Spatter Analysis*
- *Chromatography*
- *Organic/Inorganic Properties of Soils*
- *Decomposition of Biological Matter*
- *Fingerprint Analysis*

## Application Information

<b>Who is able to Apply?</b>	Any student in Year 5 to Year 8 in the Plumpton Educational Community, with a passion for science is able to apply.
<b>How to Apply?</b>	Students will need to submit an application to attend through Plumpton High School by the cut-off date on the form or return to their school's front office by the cut-off date. Students will be notified in regards to their application.
<b>What is required?</b>	Students will be required to participate in several forensic science investigations combined with theory related to these investigations. Some of these will be used as part of the assessment. Students will also be provided with a case study at the completion of this program to solve which will act as their final assessment.  There may be some independent work that the students will need to complete at home.
<b>What does my child wear?</b>	Normal school uniform is appropriate however it is essential that students wear leather shoes for WHS reasons in the science laboratories.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing after the application whether they were successful or not for the program.



# *Why the High Potential Gifted Education Forensic Science Program?*



This program offers the opportunity for students to engage in complex intellectual pursuits with guidance and direction.

Students will be provided the opportunity to learn new skills and these skills will focus on a variety of 'smarts' including visual, kinaesthetic and logic. This will cater for a variety of learning styles and help students to gain new experiences and skill

- Challenge yourself and explore your intellect
- Work with like-minded people
- Learn new and interesting skills
- Have fun
- Compete with fellow students

## **Meet the Teacher**

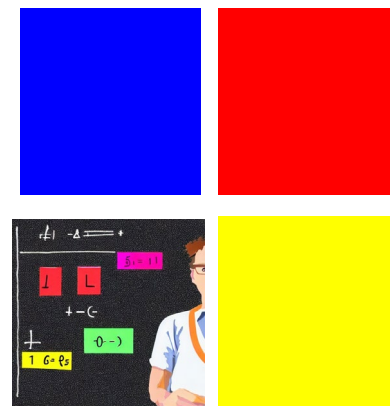
**Ms Rania Renno – Bachelor of Science / Bachelor of Education (Secondary)**

**Graduate of Macquarie University**

Ms Renno completed a science degree where she studied biology and chemistry. Throughout her schooling she has enjoyed learning about the different branches of science and wants to pass on her love of science to those around her.

Growing up in Western Sydney, Ms Renno has developed a passion for providing students with the best education possible. She works to provide a safe environment that helps her students explore complex concepts and ideas so they can extend themselves and value the knowledge they are working for.

# Mathematics Extension



## Rationale

Studying Mathematics Extension courses offers students the opportunity to enhance their problem-solving skills, develop logical thinking, and prepare for advanced academic pursuits. It not only provides a strong foundation for future studies but also widens career prospects in fields requiring strong mathematical skills.

Additionally, excelling in this course can give students a competitive edge in senior Mathematics courses, fostering personal growth and adaptability.

## Objectives

This course aims to deepen students' understanding of advanced mathematical concepts, fostering critical thinking and problem-solving abilities through challenging problems.

They emphasise mathematical rigor, precision, and clarity while preparing students for senior years of Mathematics.

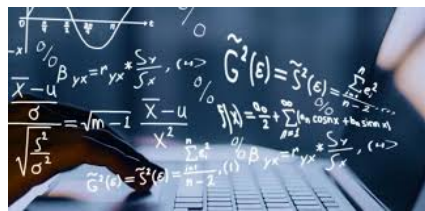
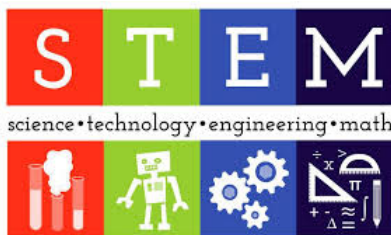
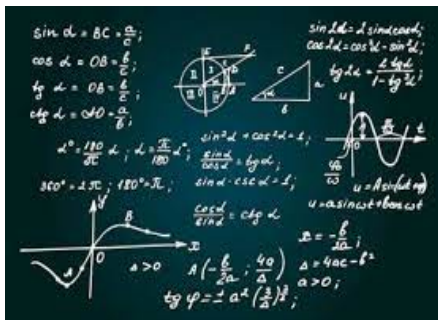
Additionally, Mathematics Extension course aims to promote adaptive learning, encouraging students to tackle unfamiliar problems with confidence and creativity.

Effective communication of complex mathematical ideas is also a goal, and students are introduced to a broader spectrum of mathematical topics.

Ultimately, this course further aims to equip students for success in standardised exams.

This program will:

- Deepen mathematical understanding: Extension courses go beyond the standard mathematics curriculum to explore more advanced topics. This can help students develop a deeper understanding of mathematical concepts and principles, which can be beneficial for a wide range of academic and professional pursuits.
- Enhance problem-solving skills: Extension courses emphasise problem-solving skills, teaching students how to approach complex mathematical problems and find creative solutions. These skills are transferable to many other areas of life, including science, engineering, business, and even everyday decision-making.
- Improve analytical thinking: Mathematics is a language of logic and reasoning, and Extension courses help students develop their analytical thinking skills. This means they can learn to break down complex problems into smaller, more manageable parts, evaluate evidence objectively, and draw sound conclusions.
- Prepares for Higher level courses in Years 11 and 12: Taking an Extension course can give students a competitive edge and prepare them for the rigors of higher-level mathematics.
- Boosts confidence and self-esteem: Succeeding in a challenging subject like Mathematics Extension can be a significant confidence booster for students. It can also help them develop a strong sense of self-belief and a positive attitude towards challenging tasks.



In addition to these general benefits, Mathematics Extension course can also be valuable for students who are interested in pursuing specific careers.

For example, students who want to become engineers, scientists, or mathematicians will likely need strong mathematical skills. Taking an Extension course can help them develop the foundation they need for success in future mathematics course.

## Reporting Procedure

The teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes.

These are descriptors of what students will know and be able to do because of studying the Mathematics Extension course.

The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

Teachers use a range of strategies to collect information on the demonstration of skills and understanding which students exhibit in a variety of contexts. It is important to make judgements about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single demonstration.

Similarly, a student will demonstrate that he or she can achieve the requirements of an outcome, in a number of different activities.

Judgements about student achievement of outcomes are made, based on evidence. A variety of strategies may be used to collect evidence on student achievement.

Some examples include:

- observing students answering questions for the class tasks.
- observing students during the process of problem solving.
- discussing with students their own work and the work of others
- analysing student performance in external competitions.
- Summative assessment.

Teachers will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

# Selection Process

Students will be selected for the program through expression of interest.

Students who show expression of interest will be required to complete a short entry form and get supporting statements from one of their teachers.

They will be required to attach one evidence of their high achievement in Mathematics. You will be selected based on the following criteria:

- Demonstrates a high work ethic in their academic studies.
- Demonstrates exemplary behaviour and self-discipline.
- High level of school attendance

When and where?

This class will be held in the Open Learning Space on Thursday from 3.00pm to 5.00pm.



# What topics are taught?

- *Problem Solving*
- *Advanced Algebra*

Students will do the following:

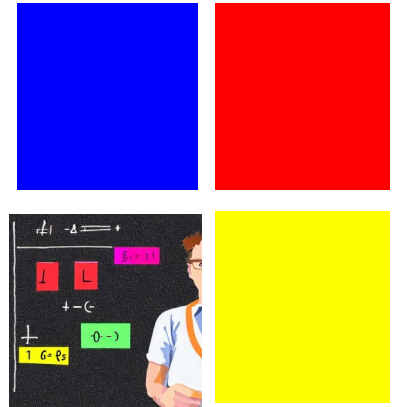
- *Complete mathematical challenges/tasks*
- *Take part in external mathematics competitions.*



## Application Information

<b>Who is able to Apply?</b>	Any student in Year 5 to Year 10 in the Plumpton Educational Community, with a passion for Maths is able to apply.
<b>How to Apply?</b>	Students will need to submit an application to attend through Plumpton High School by the cut-off date on the form or return to their school's front office by the cut-off date. Students will be notified in regards to their application.
<b>What is required?</b>	Students will be required to participate in several forensic science investigations combined with theory related to these investigations. Some of these will be used as part of the assessment. Students will also be provided with a case study at the completion of this program to solve which will act as their final assessment.  There may be some independent work that the students will need to complete at home.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing after the application whether they were successful or not for the program.

# Mathematics High Achievers 2024



**Credit:**

Bilal Faraz

Mohamed Hoque



**Australian  
Mathematics  
Competition**

**Credit:**

Bilal Faraz

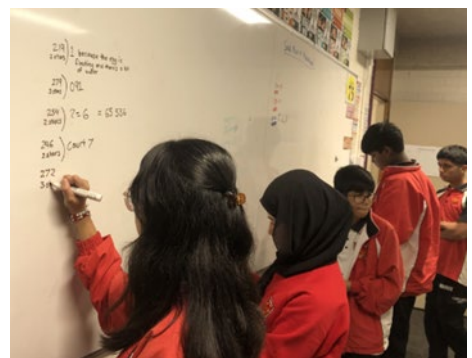
Saad Faraz



**Proficiency:**

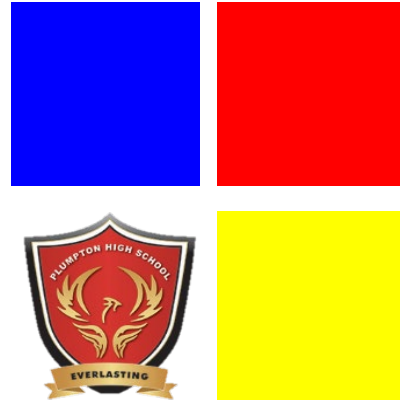
Jannalyn Barbuco

Mohammed Hoque





# Music Performance Program



## *Opportunities in the Program:*

Plumpton High School is now taking expressions of interest for ensemble/solo music lessons to start in Beginning of Term 1 2025. Lessons will be facilitated by Mrs O'Brien who is a Music teacher at Plumpton High School in the Creative and Performing Arts Faculty. Music tuition lessons are available on the following instruments:

- Guitar
- Ukulele
- Bass
- Keyboard
- Voice
- Drums

This program aims to develop and refine student performance skills in a professional environment that caters to students of all year groups, abilities and walks of life. This program takes great care to cater lessons to each student's abilities and interests, offering relevant and engaging musical knowledge and material in a variety of styles and instruments. Students will develop their practical skills while gaining confidence and developing quality performance skills. Students will participate in a range of performance opportunities ranging from performing in front of their peers, to working their way up to a live audience at a range of school and community events.

Students participating in the program are expected to:

- Turn up to all lessons (unless there is a valid reason)
- Do home practice on a regular basis
- Perform at School Events

## *Objectives*

### **Knowledge, understanding and skills**

*Students will develop knowledge, understanding and skills about music as an artform through:*

### **Performance, Composition and Listening activities**



**Performance**

as a means of self-expression, interpreting musical symbols and developing solo and/or ensemble techniques.

Students will learn how to perform music on an instrument of their choice

**Composition**

as a means of self-expression, musical creation and problem-solving.

Students will learn how to compose music in different formats

**Listening**

as a means of extending aural awareness and communicating ideas about music in social, cultural and historical contexts.

Students learn to discuss and explore music works relevant to their instrument

**Value and attitudes**

*Students will value and appreciate their engagement in the study of music as an artform.*

**Teachers will report to parents on the student's competencies in the above facets.**

***Reporting Procedure***

Mrs O'Brien will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes. These are descriptors of what students will know and be able to do as a result of studying the music tuition program. The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

Music, as an area of the curriculum, is based on students learning about performance, composition and listening, and learning to perform, compose and appreciate. Mrs O'Brien uses a range of strategies to collect information on the demonstration of skills and understanding which students exhibit in a variety of contexts. It is important to make judgements about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single demonstration. Similarly, a student will demonstrate that he or she can achieve the requirements of an outcome, in a number of different activities.

Judgements about student achievement of outcomes are made on the basis of evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- performance goal setting and reflecting
- observing students performing musical pieces solo and in front of an audience
- observing students create and arrange musical pieces
- discussing with students their own work and the work of others
- collecting and recording performance work
- peer assessment and self-assessment

Mrs O'Brien will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

## ***Tuition Available***

The Plumpton High School Music Performance program will provide students with the opportunity to develop and refine skills on any of the following instruments;

- **Guitar**
- **Ukulele**
- **Bass**
- **Voice**
- **Keyboard**
- **Drums**

We are currently offering an amazing opportunity for students to have group after school lessons to work towards their performance goals.

Lessons will commence **beginning of Term 1.**

## ***Tuition Structure***

The tuition will be arranged into instrumental / vocal solo and ensemble groups where the student's will receive tuition in areas of their interests and abilities, with a focus on developing and refining performance skills.

The tuition will be for 2 hours after school, running from 3-5pm.

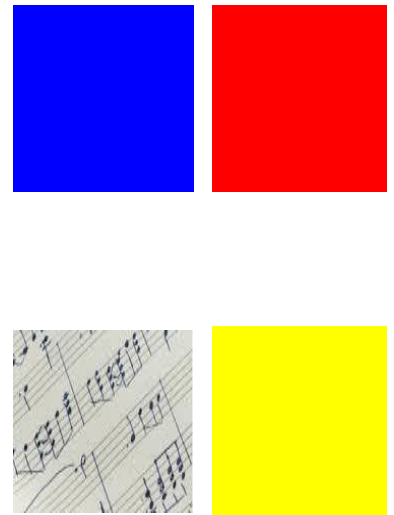
Students are able to access the music room to practice during lunchtimes and before school.

Students will have the opportunity to learn songs of their own interest throughout the year, and complete set tasks and activities based on their skill level.

## **Application Information**

<b>Who is able to Apply?</b>	Any student at Plumpton High School in years 7 – 12
<b>How to Apply?</b>	Students will need to complete the application form and submit it by the due date
<b>What is expected?</b>	Students will be required to participate in their full tuition class every week.
<b>What does my child wear and bring?</b>	Normal school uniform is appropriate and the students do not need to bring their own instruments for the classes.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing one week after the application whether they were successful or not for the program.

# *Why will HPGE Music Performance be beneficial for my Child?*



This year HPGE Music Performance program will run as a 2 hour workshop where the students will be given the opportunity to experience private solo and ensemble tuition. This will give students the opportunity to experience music in a professional and educational setting with other likeminded students.

Students will develop their skills on an instrument of their choice and learn to perform pieces suited to their ability. Students will also be given the opportunity to compose music if that is something that interests them. Students will learn to express ideas creatively as they make and perform musical pieces while analysing different pieces of music and studying performance etiquette. This program is designed to complement and enhance the student's prior knowledge of music and to work with the students towards their individual goals.

The program will provide students with; knowledge, skills and understanding about Music and the capacity for students to manage their own learning, the facility to work together with their peers towards a goal. Each lesson will be personalised to the students in the class and differentiation of the lesson content is available for student's individual learning needs. The HPGEMP staff work in a nurturing environment providing students with the highest quality of teaching available.

Your child will develop skills in:

- Music appreciation
- Problem solving skills
- Developing critical thinking skills
- Enhancing communication skills
- Working collaboratively.

The program will be developed for your child to develop their interpersonal skills and communication with others by working in consultation with others. Your child will benefit from learning how to play an instrument and refine their skills.

## Meet the Teacher

**Mrs Hayley O'Brien**

**Bachelor of Music / Bachelor of Education Graduate of Western Sydney University AMEB 8<sup>th</sup> Grade Piano**

Mrs O'Brien has 19 years experience teaching Music in the classroom and 5 years experience teaching private lessons for AMEB piano. In that time Mrs O'Brien has been developing student's skills in the area of performance and composition. Mrs O'Brien has a deep passion for Music and has experience with piano, guitar and vocals. Mrs O'Brien aims to develop student's individual skills and their technique to suit the style they wish to learn. Mrs O'Brien caters for individual solo performances and group ensemble pieces, also working on performance practice. Mrs O'Brien also hopes to cater for students wishing to compose Music to perform or record. Mrs O'Brien believes music is beneficial for student learning by developing academic skills, social skills, and boosting self-esteem and confidence.

# Performance Opportunities

**There are a variety of performance opportunities available for GAT Music students, including:**

- ♪ *Music Night @ Plumpton High*
- ♪ *Education Week at Westfields Mount Druitt*
- ♪ *Formal Assemblies*
- ♪ *MADD Night @ Plumpton High*
- ♪ *Schools Spectacular*
- ♪ *PULSE*
- ♪ *Musical Opportunities*
- ♪ *Performing Arts initiatives and events*





# *Student Executive Council*



## *Rationale*

At Plumpton High School we continue building and developing student's intellectual capacity, ensuring that they have the necessary skills and ability to solve complex problems, develop and understand concepts and to be the leaders of tomorrow in our future focused world. Plumpton believes in a Growth Mindset and for students to have a growth mindset, they understand that trying harder - and trying new strategies - not only helps them succeed at the current task but also helps them succeed in the future by strengthening their brain.

The Plumpton High School Student Executive Council, or SEC, is a team of students that strives for and leads the constant improvement and growth of our school. It consists of representatives from each Year level, as well as the Year 12 leadership team elected that year. Our supervising teachers lead these students. Plumpton High School has implemented the Student Executive Council instead of a 'Representative Council' as we believe our students should have a role in the changes and decisions made within the school and push for the improvements they desire. Our students have the capacity to do so much more than simply represent the school in public forums, as they are future leaders of Australia. Leadership capacity can be built when students are provided the necessary skills and experiences, combined with the setting of high expectations and encouragement. Additional responsibility that is placed upon students encourages them to be more courageous, learn more and achieve more. The students that become a part of this team are expected to fulfil their roles with a high level of responsibility and professionalism in a Project Management based Learning model, teaching them skills they can carry on for a lifetime.

In 2017, the SEC decided to aim to unite our school by building school spirit, fostering connections with the community and embracing diversity, among our other goals. They began various initiatives, aiming to achieve these goals and know that future junior members will be able to bring more to the table and allow us to reach these goals quickly and efficiently. SEC members are not the only ones that can bring a change to the school or suggest improvements. Part of the role of the SEC is to receive suggestions from the student body and incorporate their ideas into our agenda and our decisions. This can be done by approaching any of the SEC members and suggesting their innovative and creative ideas that begin as undiscovered solutions, with the potential to improve the school environment. As a whole, the Plumpton High School Student Executive Council is a team that empowers the students and allows them to be involved in making decisions that will affect them, their environment and their peers.

## Selection Process

- Students interested in the running of their school and in making their learning environment the best it can be should consider applying for the Student Executive Council.
- Students should consider if they have such leadership qualities as commitment, communication skills, and cooperation.
- To apply for the SEC students will need to fill in an application form that addresses their commitment to attendance, uniform and school activities.
- The next step of the process is to answer several questions about how you can be a helpful member of the SEC.
- These responses will be used to make a decision about your suitability to join the SEC.

## What will each lesson

### look like?

**SEC meetings for the Senior SEC are held once a week after school on Tuesdays from 3:00 to 4:00 PM. Years 7- 10 occur during Lunch 1 on Wednesdays and are run by the Senior SEC's Team Leadership.**

**During this time students will collaborate to plan projects for the improvement of the school and community.**

**These projects focus on the areas of inclusion, charity, community, media, and sustainability.**

## Application Information

<b>Who is able to apply?</b>	Any year 7-12 student who wishes to contribute to their school community.
<b>How to apply?</b>	Apply by filling out an application form and answer the relevant questions.
<b>What is required?</b>	A positive and outgoing personality, along with a desire to help others.
<b>How do I find out if my child was successful?</b>	Students will be notified in person whether they are a successful applicant based on their application.
<b>Where will the application process take place?</b>	Students will be required to submit their applications by a designated due date. These applications will be reviewed and a decision will be made.
<b>Are parents able to watch the application process?</b>	The application process is closed and as such parents will not be able to watch the process.

# Why will the SEC be beneficial for my Child?



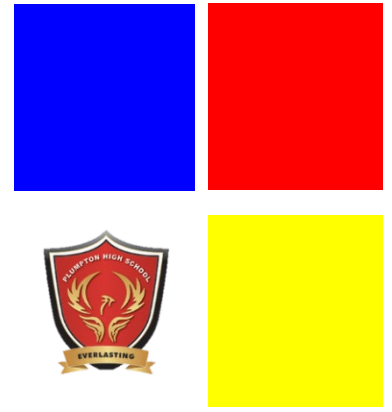
The SEC has been designed to allow students the ability to drive their own community, through a process of self-determination.

The thoughts and voices of the students are lead and managed by the students to direct future decision making towards enhancing not only the community of Plumptre High School, but also of the greater Plumptre Community. In this sense, the SEC is not just an activity for positive or outgoing students, but more a role centred upon the building of future leaders.

Leadership skills and responsibilities are an integral part of the SEC program and when combined with the philosophy of egalitarianism, provides a multitude of benefits to the development of all students involved.

<b>Meet the SEC</b>			
<b>Mr Lloyd, Mr Chandra, Ms Kohistani, and Ms Racela</b>  <u><b>Vice Captains 2024-25</b></u> Caiden Bond Rochelle Nica Cortez Faryal Tayyab  <u><b>Captains 2024-25</b></u> Lochlan Falzon Chantelle Tabone	<u><b>Year 8 2024</b></u> Haaris Anwaar Zaid Bukhari Naomi De Pedro Amani Hussein Mariam Jahangir Noreen Joyia Sadia Joyia Hari Nandhana Nyah Napoles Aryan Rama Aloah Soliva Theint Thant Lokesh Yalamanchili	<u><b>Year 11 2024-25</b></u> Melcam Aberu Noor Alanzi Zain Al-Shible Haaziq Anwaar Riba Asim Jil-Amber Avillanoza Shahzeb Aziz Thomas D'Angelo Jarmain David Noor Emaan Shiarna-Lee Holland Belinda (Luca-Grey) Hughes Hodan Ibrahim Anisha Joyia Attia Joyia Awais Joyia Isaac Lee Harsh Mal Arsh Malik Fatima Malik Leila Mirian Masooma Mohammadi Rhea Prasad Inara Quazi Ashton Quizon Ahmad Raza Maritza Alana Safir Kris Santos Nathaniel Santos Roma Rani Singh Carissa Tagra	<u><b>Year 12 2024-25</b></u> Leigh Bernardine Aba Suamata Ae' Sua Safeer Ahmad Nadira Ali Sumairaa Ali Alexandra Assuncao Jiya Barot Martin Basta Haris Bukhari Lara Cerit Logan Dartnell Katherine Komal Devi Kristine Kaval Devi Elaine Garces Sania Begum Hussain Komal Ilyas Shamanta Islam Maryam Ahmad Joyia Ahmad Kamandi Alisha Makkar Mariyam Malik Jayden Manriquez Maxene Marasigan Bailey Murray Daniel Nisa-Blake Arozo Jan Salari Made Ayu Prakna Kalyana Sarjana Faiza Shajar Jack Smith Bernina Taufeulungaki Hannah Ualesi
<u><b>Year 7 2024</b></u> Humzah Bokhari Willow Dartnell Soofiya Fathima Scarlett Fay Nimit Joshi Param Joshi Keziah Junio Olivia Mawi Kawltla Rose Lucas Chelyn Murphy Xavier Pittman Mohammed Qayomzada Turhan Iqbal Shafee Zia	<u><b>Year 9 2024</b></u> Alishba Ali Maham Ali Lamar Arabi Jannalyn Barbuco Yusuf Kabirshah Ysabela Marasigan Lanvy Nguyen Mohammed Rizvi Katie Smith Hayden Villaluz Mariah Yuvienco		
	<u><b>Year 10 2024</b></u> Students have moved up to Senior SEC		





## **Meet the Teachers:**

### **Ms Arezo Kohistani**

**Bachelor of Science (Honours), Master of Public Policy and Administration (Honours), Master of Education (Secondary)**

**Graduate of the Roger Williams University, University of Massachusetts Amherst, Alphacrucis College**

Ms. Kohistani is a dedicated educator with a specialised academic background in nonprofit management, globalisation theory, health, and education policies. Her experience spans both the public and nonprofit sectors, where she has developed a strong commitment to policies that promote student leadership and well-being. With teaching experience across primary and secondary levels, Ms. Kohistani is equipped with the insights and skills to lead initiatives that foster a positive, nurturing school climate where students are empowered to excel both academically and socially. By fostering open dialogue and celebrating diversity, Ms. Kohistani builds trust and respect and encourages students to realise their full potential and become their best selves.

A strong advocate for youth leadership development, Ms. Kohistani is passionate about guiding students to build essential skills such as teamwork, accountability, and initiative. Her work aims to make a meaningful impact on students' lives, ensuring that all students have the opportunity to thrive both academically and personally.

### **Mr Arvind Chandra**

**Bachelor of Science (Environmental Science), Certificate Secondary teacher training, Advanced Diploma in Logistic and supply chain management (other industry specific training-in supply chain and logistics)**

**Graduate of the University of South Pacific**

Mr. Chandra brings over 17 years of high school teaching experience. He has not only served as a classroom teacher but also led the Geography and Social Science Faculty. In addition to his teaching career, he has worked as a supervisor at Edwards Life science and Seiko Australia Pty Ltd. Mr. Chandra is a dedicated proponent of high-quality education, firmly believing it is crucial for every student's growth, success, and overall development.

With his experience, Mr. Chandra has successfully supported and led students in the annual athletics carnival at Khalsa College, assisted them in fundraising activities for the annual soccer carnival, and contributed to a successful Clean Up Australia Day initiative at Plumpton High School. He believes that being a member of the SEC offers students invaluable real-world experiences, helping them develop their leadership potential and fostering collaboration and teamwork. These student projects significantly enhance learning outcomes, elevate the school's profile, and positively impact the community.

With a background in both education and business, Mr. Chandra believes that the SEC plays a crucial role in preparing students for their transition from school to the work environment. By gaining experience in project management, resource allocation, time management, and leading teams, students are well-prepared to seize opportunities. Additionally, engaging with the community and practicing sustainable environmental management helps them become responsible global citizens.



**Ms Mirachael Racela**

**Bachelor of Science / Bachelor of Education (Secondary) – with Distinction  
Graduate of the University of New South Wales**

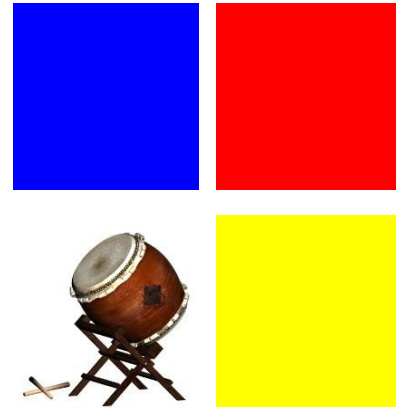
Ms Racela is a passionate secondary Science teacher with a background in biology, chemistry, and physics. She brings a wealth of expertise to her role. Whilst studying in university, she worked as a part of the Student Representative Council at the University of New South Wales, and has worked as a part of student groups such as the Womens' Collective, Ethno-Cultural Collective, and Education Society. She was provided many opportunities to run projects and events to raise awareness for key issues and also created systems and policies focused on making the university more inclusive for students and staff.

She believes in an inquiry-based approach in both her teaching and in working with the Student Executive Council. Following this approach allows students the opportunities to build their own understanding of the world around them and to use critical thinking to solve problems. It also helps to develop their capacity and independence in planning events and projects to make a difference in their community.



# Taiko 太鼓

# Drumming



## Rationale

The Plumpton High School Highly Gifted and Potential Education Taiko Drumming Program aims to provide students with a unique opportunity to explore the rich cultural heritage of Japan through the dynamic art of Taiko drumming. This program not only focuses on the development of musical abilities and performance skills but also incorporates essential Japanese cultural customs that foster personal growth and community connection.

Music, particularly in the form of Taiko drumming, holds a significant place in Japanese culture. It is deeply intertwined with various cultural customs and practices, emphasising values of discipline, mindfulness, and synergy.

**Discipline:** Taiko drumming requires rigorous practice and dedication, reflecting the Japanese principle of "shugyo," or disciplined training. Students will learn the importance of perseverance and commitment, essential traits for both personal and academic success.

**Mindfulness:** The practice of Taiko encourages mindfulness as students must focus on their movements, rhythms, and the connection to their fellow performers. This attention to the present moment not only enhances their musical performance but also promotes emotional well-being and stress relief.

**Synergy:** Taiko drumming is inherently a collaborative art form that relies on group dynamics and synchronisation. Participants will experience the power of synergy, learning to work together harmoniously to create a unified sound that transcends individual performances. This sense of community fosters social skills and empathy among students.

The study of Taiko drumming encompasses affective, cognitive, and motor skills domains, allowing students to express emotions, engage in intellectual exploration, and develop physical coordination. By integrating performing, composing, and listening, students will gain a multifaceted understanding of music within its cultural context. This holistic approach not only contributes to musical proficiency but also prepares students for lifelong learning and appreciation of the arts.

The curriculum is designed to be adaptable, catering to students with diverse interests in music—from general engagement to specialised skill development. The HGPETD provides a high-quality performing arts education that emphasises Taiko styles and techniques, led by a fully qualified DEC Music Teacher.

At Plumpton High School, all students participate in music during Year 7, with the opportunity to select music as an elective from Years 8-12. This program allows students to access musical education earlier, fostering a deeper connection to the art form and its cultural significance.

The Plumpton High School Highly Gifted and Potential Education Taiko Drumming Program not only nurtures musical talent but also instils valuable life skills rooted in Japanese cultural customs. By participating in this program, students will embark on a journey of personal and communal growth, gaining insights that extend beyond music and into their everyday lives.

## Objectives

### Knowledge, understanding and skills

*Students will develop knowledge, understanding and skills about Taiko Drumming as an artform through:*



Taiko Performing at the Education Minister's Awards

<b>1. Performing as a soloist</b> As a means of self-expression, interpreting musical symbols and developing solo techniques	<b>2. Performing as a Group</b> As a means of group music making, combining blending and ensemble techniques	<b>3. Composing</b> As a means of self-expression and collaboration between a Taiko ensemble

**Value and attitudes**  
*The aesthetic value of music and enjoyment of engaging in performing, composing and listening.*  
**Teachers will report to parents on the student's competencies in the above facets.**

## Reporting Procedure

The teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes. These are descriptors of what students will know and be able to do as a result of studying the Taiko program. The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

Music, as an area of the curriculum, is based on students learning about making, performing and appreciating, and learning to make, perform, and appreciate. Teachers use a range of strategies to collect information on the demonstration of skills and understanding which students exhibit in a variety of contexts. It is important to make judgements about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single demonstration. Similarly, a student will demonstrate that he or she can achieve the requirements of an outcome, in a number of different activities.

Judgements about student achievement of outcomes are made, based on evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- observing students performing
- observing students during the process of making music
- discussing with students their own work and the work of others
- interviewing individual students about their own performance and their involvement in making music
- peer assessment and self-assessment

Teachers will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

## Selection Process

Students will be selected into the program through expression of interest. Students who show an expression of interest will be required to complete a short entry form. They will then attend a Taiko Session to be assessed on practical suitability for the program.

Students will be selected based on the following criteria:

- Demonstrates a high work ethic in their academic studies
- Demonstrates exemplary behaviour and self-discipline
- Ability to perform or show the potential to perform music
- High level of school attendance

## What will each lesson look like?

**3:00pm – 3:15pm:**

*Set up, Warm Up and Body Conditioning*

**3:15pm – 4:00pm:**

*Drills/Skills Practice*

**4:00pm – 4:15pm:**

*Drink/Snack Break*

**4:15pm – 5:00pm:**

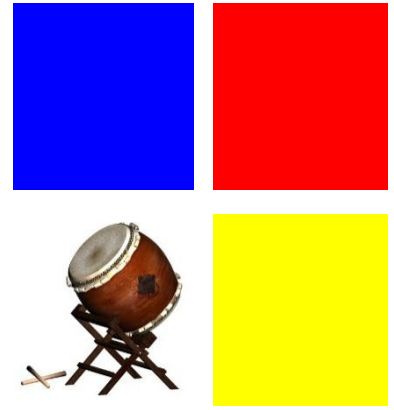
*Performance Practice*

*Students are divided into two groups (Senior and Junior) Advancing to Senior Ensemble is through Audition*

## Application Information

<b>Who is able to Apply?</b>	Any student in years 5-12 from the Plumpton Education Community, with a passion to learn Music, with a focus on Taiko Drumming, as an artform.
<b>How to Apply?</b>	Students will need to submit an application to attend through Plumpton High School by the cut-off date on the form or return to their school's front office by the cut-off dates. Students will be notified in regards to their application.
<b>What is required?</b>	Students will be required to participate in the full two-hour class.
<b>What does my child wear?</b>	Students are required to wear any clothing they are most comfortable in to be able to move around in.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing after the application as to whether they were successful or not for the program.

# Why will the HGPETD be beneficial for my Child?



The HGPETD offers students from years 5 to 12 the opportunity to experience Music, focusing on Taiko Drumming, in a professional and educational setting with other likeminded students.

The HGPETD is designed to complement and enhance student's prior knowledge of music and to work with the students towards their individual and group goals. The program will provide students with; knowledge, skills and understanding about Music and Taiko Drumming as an artform, the capacity for students to manage their own learning, the facility to work together with their peers towards a goal.

Each lesson will be personalised to the students in the class and differentiation of the lesson content will be made available for students individual learning needs.

The HGPETD staff work in a nurturing environment and provide students with the highest quality of teaching available.

## Meet the Teacher



**Mr Timothy Symes**

**Bachelor of Music (Performance)**

**Associate Bachelor of Arts (Historical and Political Thought)**

**Master of Education (Secondary)**

**Certificate III Live Production and Services**

**Certificate IV Teaching and Adult Education**

Mr Timothy Symes is a passionate educator that joined Plumpton High School in 2018 as a music teacher in the Creative and Performing Arts Faculty.

Mr Symes is an accomplished percussionist playing across a variety of musical styles including Funk, Rock, Classical, African and Jazz. He has played across the east coast of Australia in a variety of award winning ensembles and has been part of session projects for multiple musicians. He is now using his rhythmic experience to educate students about the joy of Taiko Drumming.

Mr Symes brings a wealth of experience from his classroom teaching, current industry knowledge and an in depth understanding of rhythm and movement that will encourage others to become the best musicians they can be.



# Performance Opportunities

There are a variety of performance opportunities available for the Taiko Drumming Students including:

## Plumpton High School Events:

*Multicultural Day  
Music Night  
MADD Night  
Excellence Ceremony  
Formal Assemblies*

## The Arts Unit Events:

*School Spectacular  
The Premier's Community  
BBQ  
The Education Minister's  
Awards*

## NSW DET Events:

*EPMI Conference*

## Community Events:

*Lunar New Year,  
Blacktown*



Taiko Performing at the Education Minister's Awards



Taiko Performing at the Premier's Community BBQ for His Majesty, King Charles III

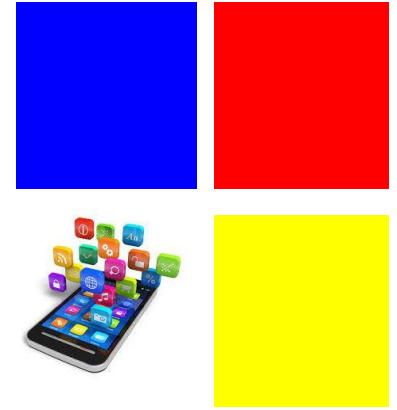


Taiko Performing as part of School's Spectacular



Taiko Performing PHS MADD Night

# Computer Science (STEM)



**Science Technology Engineering Mathematics**

## Rationale

The High Potential Gifted Education for Computer Science program that is offered at Plumpton High School has been developed by the Carnegie Mellon Institute in the United States. The Computer Science course that has been designed, aligns with the Australian Curriculum's general capabilities.

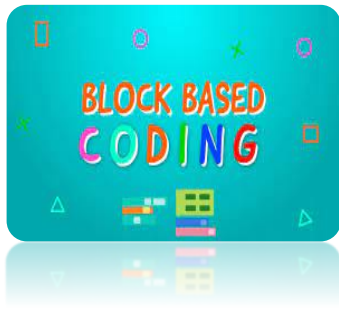
In the 21<sup>st</sup> century, scientific and technological innovations have become increasingly important as we face the benefits and challenges of globalisation and a knowledge-based economy. To succeed in this new information-based and highly specialised society, students need to develop their capabilities in STEM to levels much beyond what was considered acceptable in the past. People can expect to work and live in environments requiring highly developed computing and technological literacy levels. Current technologies are becoming obsolete rapidly, and new generations will need to be flexible to accommodate changes as they emerge. Students must learn about, choose and use appropriate information and software technology and develop an informed awareness of its capacities, scope, limitations and implications. Technological competence in the rapidly evolving information and software technology area will require lifelong learning.

Students can build the capacity to understand, reference, apply and engage themselves in 21<sup>st</sup>-century learning tools. Students should learn how to program a computer because it teaches them how to think. Through experiential and collaborative tasks, students analyse, design, produce, test, implement and evaluate software technology-based solutions. Creative, critical and mega-cognitive thinking skills are developed through students' practical involvement in projects. Students will be able to enhance their skills of developing an algorithm (a step-by-step process to solve a problem) through learning of Computer Science skills.

## Objectives

Students will grow in confidence about the Information & Technology Industry and become more aware of the global progress in this field. The aim is to develop students' knowledge, understanding, confidence and creativity in analysing, designing, developing and evaluating web-based solutions.

Computer science program development includes an organised series of activities to design, produce and evaluate web-based solutions for an identified need or problem. The content for apps focuses on problem-solving, generating ideas, modelling, managing, communicating, collaborating and assessing solutions. The benefits of this course are:



### 1. Block-based Coding

A Block-based interface will be used to teach students how to code and how to comprehend programming concepts.



### 1. Python Programming

Students will learn how to develop a software project using Python programming.

#### Value and attitudes

*Students will value and appreciate technology and how to work with it.*

**Teachers will report to parents on the student's competencies in the above facets.**

## Reporting Procedure

The teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes, which are descriptors of what students will know and be able to do as a result of participating in Computer Science Programming. The assessment aims to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

The Computer Science program is based on students learning about how web applications work, how their design process works and how to apply analysis of data to practical situations. Teachers use a range of strategies to collect information on the demonstration of skills and understanding students exhibit in various contexts. It is important to make judgments about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single project. Similarly, a student will demonstrate that he or she can achieve the requirements of an outcome in a number of different activities.

Judgments about student achievement of outcomes are made on the basis of evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- Observing a student's application of techniques in the practical work.
- Examining the quality of the student's product.
- Examining the functionality of the student's product.
- Student self and peer assessment.

The teacher will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

## Selection Process

- *Students will be selected for the program through an expression of interest process.*
- *Students who show an expression of interest will be required to complete a short entry form. Students will be selected based on the following criteria:*
  - *Demonstrated a high-work ethic in their academic studies.*
  - *Demonstrates exemplary behaviour and self-discipline.*
- *High level of school attendance.*

## What will I be learning

### in this program?

- **Software designing.**
- **Python Programming.**

## Application Information

<b>Who is able to Apply?</b>	Any student in years 5-8 from the Plumpton Education Community and any student from Plumpton High School in years 7 & 8, with a passion for learning application development for mobile devices.
<b>How to Apply?</b>	Students will need to submit an application to attend through Plumpton High School by the cut-off date on the form or return it to their schools' front office by the cut-off date. Students will be notified in regard to their application.
<b>What does my child wear?</b>	Normal school uniform is appropriate however, it is essential that students wear leather shoes for WHS reasons in the workshop.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing one week after the audition whether they were successful or not in the program.

## Opportunities from this course

There are no prerequisites for the study of Computer Science Course.

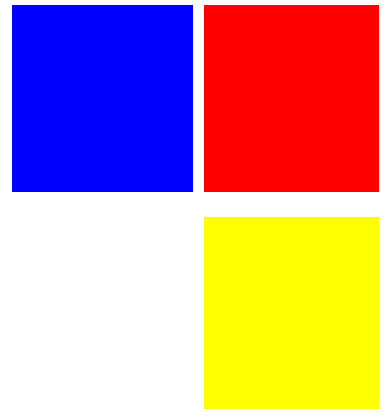
Where this course could take you?

- Stage 5 (Computing Technology)
- Foundation for Stage 6 (Software Engineering)
- Software Developer as a career
- Applications Developer as a career.





# *Why will the HPGE (Computer Science) be beneficial for my Child?*



This program offers the opportunity for students to learn about 21st-century tools of the Information and technology industry. It allows students to expand their knowledge, attitude and to gain new skills that will enable them to build relationships within the school and the wider community.

Plumpton High School encourages all students to give back to the community. This program compliments this through Computer Science HPGE program as students can utilise this skill to serve their community in a better way.

- **Develop leadership and thinking skills**
- **Enhance your software development skills**
- **challenge yourself and have an adventure**
- **Develop communication skills**
- **Make new friends**
- **Increase self-confidence and courage**
- **Make a positive difference to live**



## **Meet the Teacher**

Ms. Kayley Waldon - Bachelor of Education (Secondary) & Arts, double major in Mathematics and Studies of Religion. Graduate of the University of Notre Dame Australia.

Ms. Kayley Waldon has been teaching at Plumpton High School as a Mathematics teacher since 2022. She has recently discovered her skills as a Computer Science teacher in 2024. She has established herself as a quality teacher who is always prepared to learn something new. She believes that with hard work and lots of practise that everyone can achieve their goals, and that everyone has the ability to make a difference in the world.



# STEM with Computer Science

Fact Sheet

Years 2 - 10

**edu**STEM

# World-class, tried & tested STEM curricula

Developed by researchers from Carnegie Mellon University, one of the world's leading universities for robotics, artificial intelligence and computer science, eduSTEM's STEM curricula are research-backed, tried and tested. Used by over 16,000 schools and 1,000,000 students internationally, eduSTEM's curricula represent the gold standard in global STEM education.

## Ready-made curricula

100 hours of curriculum per year level, reinforcing learning outcomes from the Mathematics, Science and Digital Technologies National Curriculum. Programs are sequential, running from Year 3 to Year 10.



## Easy to follow lesson plans

eduSTEM's curriculum is easy to implement in the classroom with ready made lesson plans, guidance videos, and provision of student portals.



## STEM Professional Development & Certification

Designated staff members from your school go through eduSTEM's professional development program, receiving certification from Carnegie Mellon Robotics Academy. eduSTEM's PD program has already trained 11,000 educators internationally and ensures smooth and easy implementation within the school.



## Practical, hands-on & engaging

Students interact with the curriculum through hands-on exercises with robotics, simulated virtual worlds and coding challenges, making the curriculum practical and engaging.



## Student Certification

All students who successfully complete the eduSTEM program receive STEM certification from the Carnegie Mellon Robotics Academy.



## Parent Sessions

eduSTEM also conducts seminars with parents, helping them understand the importance of STEM education and building support for the program amongst the school community.

# eduSTEM



# COMPUTER SCIENCE CURRICULUM

## Course Description

### IDEAS: Iterate, Design, Engage, Apply, Synthesize

- 10 courses that progress through higher levels of complexity
- Courses available starting with grade 2 (7 year olds) through high school
- Up to 64 hours of activity and instruction per course

#### IDEAS 1: Exploring Computer Science

As an introduction to the broad range of computer science topics and skills, students learn the basics of the computer, its parts and its functions, how to use the computer's interface, how to draw, how to type using age-appropriate applications, and how the computer's local memory is organized.

#### IDEAS 2: Creativity in Computer Science

Creativity in Computer Science introduces students to new applications and also deepens the understandings and skills that were introduced in Exploring Computer Science.

#### IDEAS 3: Interactive Quizzes and Games

In Interactive Quizzes and Games, students learn to use Scratch as a tool for communication through four in-class design challenges that involve cross-disciplinary quizzes and games.

#### IDEAS Accelerator: Catch-Up Course

The Computer Science Accelerator course provides an entry point for older students to begin the IDEAS curriculum. Students begin with the basic computer skills that were taught in Exploring Computer Science and Creativity in Computer Science and are then introduced to Scratch programming and begin to make their own programs in animations.

#### IDEAS 4: Introduction to Algorithms

Introduction to Algorithms positions Scratch as a tool for computations by showing students how to use lists, functions, and algorithms to create a basic, descriptive statistical application within Scratch.

#### IDEAS 5: Thinking in Terms of Objects

Thinking in Terms of Objects introduces students to object oriented programming and Sandbloqs, a new programming language designed for students who have never programmed before, or only have experience with visual programming.

#### IDEAS 6: Designing with Objects

Students learn new applications within Sandbloqs and deepen their knowledge of object-oriented programming.

#### IDEAS 7: Creating with Java

Creating with Java introduces students to text-based programming and programming in the Android Studio as students apply object-oriented programming concepts to the Java programming language.

#### IDEAS 8: App Building

This course introduces students to new applications within Java and the Android Studio while also deepening understandings and skills introduced in Creating with Java.

#### IDEAS 9: Creating a Virtual World

Creating a Virtual World introduces students to the C# programming language, the Unity 3d editor, and many of the concepts that are used in successful game design and the game creation process.

#### IDEAS 10: Game Design

Game Design presents students with a deeper exploration of game design theory as they further explore more advanced game design principles; such as, genres, goals, mechanics, player motivation, structure and game play.

# Broad curriculum outcomes

## Big ideas

- Creativity
- Abstraction
- Data
- Algorithmic Thinking
- Programming
- The Internet
- The impact of computing

## Computational thinking practices

- Connecting computing
- Developing computational artifacts
- Using abstraction and models
- Structured Problem-Solving
- Analysing problems and artifacts
- Effective communications
- Collaboration

## Core concepts

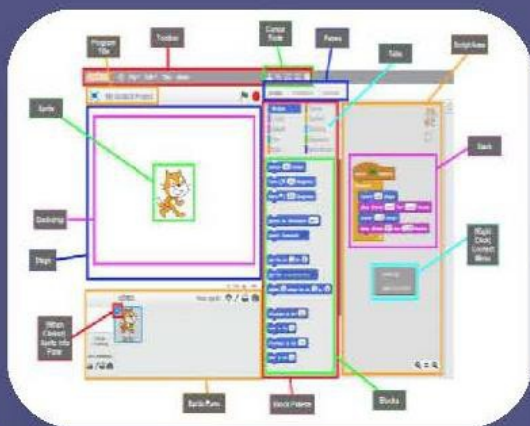
- Computer Science Knowledge and Fundamentals
- The 21st Century Skills of Teamwork
- Collaboration, project planning and problem solving
- Computational Thinking Skills and Logic
- Cybersecurity



# Student Resources

## SCRATCH Software

Students learn to code and program using SCRATCH, a visual, block programming language that allows students to drag and drop parts of a code into a stack and then quickly run their code to test its effectiveness. SCRATCH allows students to design and program games, quizzes and animations, whilst building the foundation to move to more complex programming languages



## Resolvers Computer Game

Students are provided with access to *Resolvers*, a computer game which helps students develop an understanding of the elements of computer game design and game play. *The Resolvers* also includes functionality allowing students to code their own levels within the game, providing a highly gamified environment for students to put their new coding skills to the test.



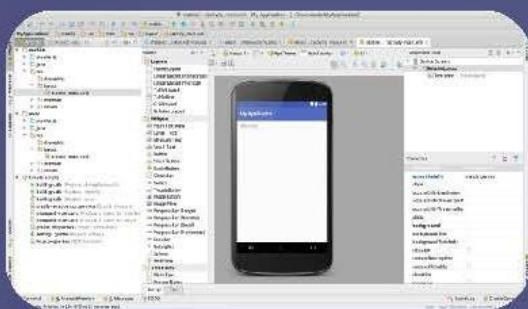
edSTEM



# Student Resources

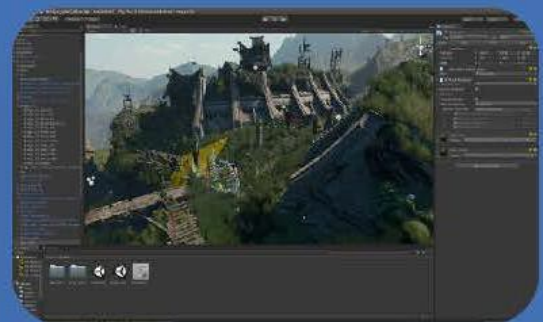
## Android Studio

Students will create an app using Android Studio that will incorporate photos and/or videos. The projects will require the students to dive further into layouts and list views while designing their apps. Students will investigate how to dynamically populate lists and also how to format those lists. After students have mastered these concepts, students will move towards learning how to incorporate games and animations into their app development.



## Unity Editor

Students are introduced to the Unity 3D Editor and many of the concepts that are used in successful game design and the game creation process. Learners will be introduced to various game genres during this unit. They will also become familiar with elements of game play and project management concepts, as related to interactive application and video game creation. Students will apply 21st century skills as they begin to apply the design process to the creation of their own interactive, three dimensional games.



**ed+STEM**

# Teacher Resources

## Lesson Plans



Each module contains step-by-step lesson plans and includes instructional videos, walking teachers through each component of the in-class exercises.

## Staff PD



Up to 4 members of your school's STEM team attend the Professional Development and STEM Training program to orient themselves with the curricula, best-practice for implementing in the classroom, and eduSTEM's hardware and software packages. Staff members successfully passing the final exam receive certification from **Carnegie Mellon's Robotics Academy** and are accredited to train other members of the school staff.

## Phone Support



Access to eduSTEM's trained staff for phone based support to trouble shooting and advice on implementation.

**eduSTEM**

# Robotics (STEM)



**Science Technology Engineering Mathematics**

## *Rationale*

The High Potential Gifted Education Robotics program that is offered at Plumpton High School has been developed to supplement the powerful Industrial Technology, Problem Solving and STEM links in the current syllabi taught across NSW. The Robotics course that has been developed aligns with the Australian Curriculum's general capabilities.

Problem solving is a widespread skill companies often look for from employees. Executions of the simplest and most basic problems in all sectors of life today can be aided with the use of designing, prototyping, and manufacturing. Different material backgrounds will act as a vehicle for humans to design and develop a rapid prototype to solve an issue and then once solved move into larger scale manufacturing. It is evident that everyone will need to learn how to design, and problem solve for a variety of problems and issues.

Our High Potential Gifted Education Robotics program aims to provide students with deep knowledge and comprehensive exposure to Mechanical, Mechatronics, new and emerging technology, and the use of computer Aided design programs. Better understanding of these key concepts will allow an individual to make better decisions, develop better judgement, logically approach problems, and hence enjoy the solution to the problem.

Students will be developing skills in assembly of mechanical parts which will be design and created by them in 3D modelling software and then constructed using real world materials. Experience in building structures will also enhance their knowledge and understanding of how physical aspects of nature influence our solutions to problems. Exposure to computer-based software and emerging technology will not only enable development to their computer skills but also direct their intellect to deduce solutions based on logic of design.

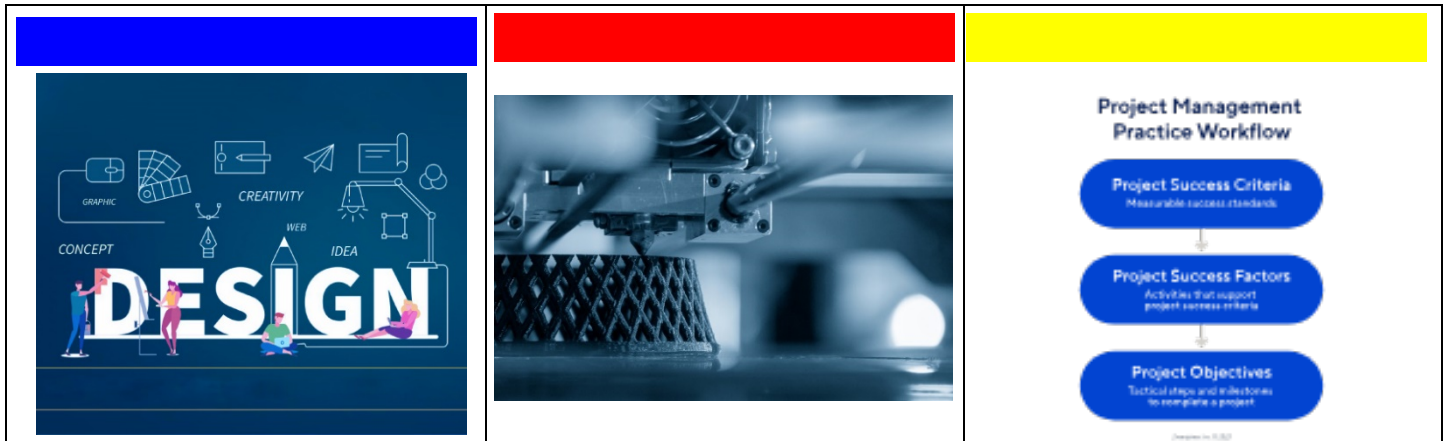
Early exposure to design skills, STEM projects and problem solving is crucial for every student. The Robotics program at Plumpton High School will allow students to explore their interest by experiencing a variety of problems where the students will have the opportunity to work together in teams or self-manage their own ideas, projects, and rapid prototypes. A wider and comprehensive understanding will lead to higher logical thinking and solid expression and creativity which will deem success inevitable.

## *Objectives*

### **Knowledge, Understanding and skills**

*Students will develop knowledge understanding in the use and role of new technology within society. A focus on emerging technology within automated field. The working scientifically outcomes are also integrated into this program, to ensure students are using a wide range of thinking and communication skills*





**1. Designing**  
 Learning to design can increase one's sense of creation and develop a more imaginative person. The High-level designing acts as a bridge for communication between real world products and not yet thought of ideas.  
 Student will primarily be using a variety of ICT software to develop different idea generations. Programs like Flash forge, ink scape, fusion 360 and google sketch up. Students will also learn how to create hand sketches and drawings sheets to showcase their designs to perspective clients.

**2. Rapid Prototyping**  
 Prototyping allows the students the freedom to start bringing their creations to life by using the emerging technology Plumpton has to offer.  
 Students will have the opportunity to use 3D printers, Laser cutters, Plasma cutters, Resin Printers and create their products and designs. These machines will develop their skills on these machines which can translate into employable skills.

**3. Evaluation and Testing**  
 Students will need to evaluate and trail their designs once a prototype has been made we can get real world humans to test them.  
 Learning how to create success criteria based off the client's needs or problem will allow students to identify themselves where they were successful and what their downfalls were.

**Topics Taught**  
*Digital Citizenship, Computer aided Manufacturing - 3D design and printing, Manufacturing to meet needs and Various coding languages*

**Reporting Procedure**

The teacher will report to parents on the achievements of students in this program through a semester report. Students will be assessed on their knowledge and skills outcomes, which are descriptors of what students will know and be able to do as a result of participating in the GATES. The purpose of the assessment is to provide information on students' achievement and progress and set the direction for ongoing teaching and learning.

Robotics and prototyping, is an area of curriculum, is based on students learning about how mechanisms and machines work, how the design process work and how to apply analysis of data to practical situations. Teachers use a range of strategies to collect information on the demonstration of skills and understanding which students exhibit in a variety of contexts. It is important to make judgments about students' achievement of outcomes, understanding that evidence relating to a number of outcomes might be embedded in a single project. Similarly, a student will demonstrate that he or she can achieve the requirements of an outcome in a number of different activities.

Judgments about student achievement of outcomes are made on the basis of evidence. A variety of strategies may be used to collect evidence on student achievement. Some examples include:

- Observing a student's application of techniques in a practical project
- Examining the quality of the student's product
- Examining the functionality of the student's product
- Student self and peer assessment
- Collecting and analysing project folios

The teacher will record student achievement for reference when providing feedback to students and others and when formally reporting to parents and caregivers.

# Selection Process

- *Students will be selected for the program through an expression of interest process.*
  - *Students who show expression of interest will be required to complete a short entry form. Students will be selected based on the following criteria:*
    - *Shows an interest in the field of STEM.*
    - *Demonstrates exemplary behaviour and self-discipline.*
- High level of school attendance.*



# What will each lesson look like?

3:00 – 3:15 pm

**Concept Explanation**

3:15 – 3:30 pm

**Demonstration**

3:30 – 4:00 pm

**Planning and organization of projects and skills building activities**

(Break 4:00-4:10)

4:10 – 5:00 pm

**Observe student practical progress, planning activity/conclusion**

## Application Information

<b>Who is able to Apply?</b>	Any student in years 5-8 from the Plumpton Education Community, with a passion to learn about Rapid prototyping and robotics.
<b>How to Apply?</b>	Students will need to submit an application to attend through Plumpton High School by the cutoff date on the form or return to their school's front office by the cutoff date. Students will be notified in regards to their application.
<b>What is required?</b>	Students will be required to participate in the full two-hour class.
<b>What does my child wear?</b>	Normal school uniform is appropriate however it is essential that students wear leather shoes for WHS reasons in the workshop.
<b>How do I find out if my child was successful?</b>	Students will be notified in writing after the application whether they were successful or not for the program.



# Why will GAT be beneficial for my Child?



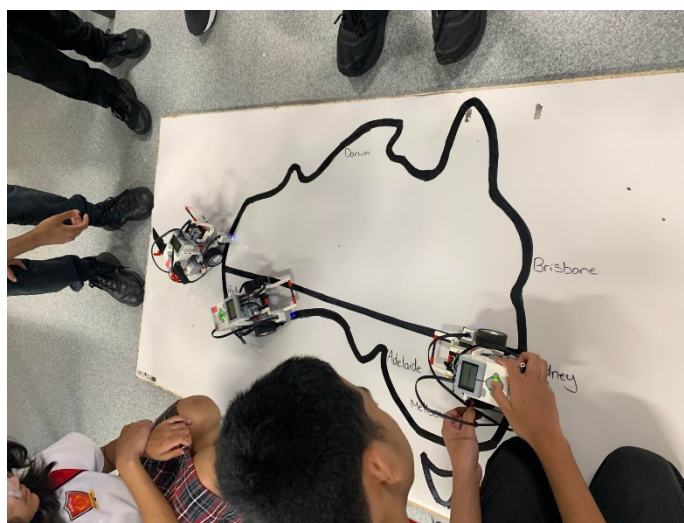
Plumpton High Potential Gifted Education Robotics program aims to provide exposure to valuable skills and knowledge which will prepare students to cope with today's challenging workforce. One of the biggest challenges for graduates, is choosing the right career path which will be both fulfilling and are in demand in current marketplace. At the same time at school they do not always get the opportunity or exposure to experiences that allows them to be wise decision makers.

The Robotics program will test student's ability in mathematics, science and technology. The program will allow the development of a physical platform for a direct application of mathematics. Students will explore engineering through levers, pulleys, gears while learning about the science and maths involved. The variety of activities and tasks will help students become logical thinkers.

Students who will complete the Robotics program will develop ability to find solutions to problems based on facts, knowledge and understanding.

These are skills are highly valued in all professions.

The High Potential Gifted Education Robotics program allows students to work in a safe and nurturing environment that can enable the exploration of their deepest curiosity involving Science and Engineering by obtaining meaningful understanding.



## Meet the Teacher

**Mr Noel Maniti – Bachelor of Science & Master of Teaching Secondary**

Mr Maniti has been working at Plumpton High School as both a Science Teacher and Information Technology Teacher. Mr Maniti has both a passion and an extensive understanding in Coding (Block and Script Code) & Robotics. Mr Maniti wishes to share his passion and knowledge in coding by guiding and assisting students. At the end of each lesson, students will further increase their critical thinking skills alongside fuelling their passion for robotics and coding. Mr Maniti is excited to share his passion with you and hopefully develop exciting projects students are proud of and can take home to showcase their newly learnt skills and knowledge.

# STEM with Robotics

Fact Sheet

Years 2 - 10

**edu**STEM

# World-class, tried & tested STEM curricula

Developed by researchers from Carnegie Mellon University, one of the world's leading universities for robotics, artificial intelligence and computer science, eduSTEM's STEM curricula are research-backed, tried and tested. Used by over 16,000 schools and 1,000,000 students internationally, eduSTEM's curricula represent the gold standard in global STEM education.

## Ready-made curricula

100 hours of curriculum per year level, reinforcing learning outcomes from the Mathematics, Science and Digital Technologies National Curriculum. Programs are sequential, running from Year 3 to Year 10.



## Easy to follow lesson plans

eduSTEM's curriculum is easy to implement in the classroom with ready made lesson plans, guidance videos, and provision of student portals.



## STEM Professional Development & Certification

Designated staff members from your school go through eduSTEM's professional development program receiving certification from Carnegie Mellon Robotics Academy. eduSTEM's PD program has already trained 11,000 educators internationally and ensures smooth and easy implementation within the school.



## Practical, hands-on & engaging

Students interact with the curriculum through hands-on exercises with robotics, simulated virtual worlds and coding challenges, making the curriculum practical and engaging.



## Student Certification

All students who successfully complete the eduSTEM program receive STEM certification from the Carnegie Mellon Robotics Academy.



## Parent Sessions

eduSTEM also conducts seminars with parents and the school community, helping them understand the importance of STEM education and building support for the program amongst the school community.



## About eduSTEM's curricula

**16,000** Schools using the curricula

**11,000** STEM certified teachers

**1,000,000** Students engaged

“With the help of [eduSTEM's] STEM curriculum my students are more active in class, participate more, are more collaborative and dare to share their ideas with others”

“With the new methodology, students are learning not only programming but also project management, research and analytical skills. Government and Industry need students with the right skills and [the] program will provide them with such that they would be able to work anywhere in the world.”

**eduSTEM**



# ROBOTICS CURRICULUM

## Course Description

### TREC: Technology, Robotics, Engineering, Coding

- 10 courses that progress through higher levels of complexity
- Courses available starting with grade 2 (7 year olds) through high school
- Up to 100 hours of activity and instruction per course

#### TREC 1: Sense, Plan, Act

Students learn about mechanical construction systems using educational building systems such as LEGO MINDSTORMS or VEX Robotics. Through age-appropriate activities, students learn how to build basic mechanical systems and complete a number of activities and exercises around computational thinking the fundamentals of robotics.

#### TREC 2: Mechanisms

Students will use their robotics kits to explore elementary math concepts, the properties of different objects, and the concept of Force.

#### TREC 3: Mobility and Sequence

Students build and program robots to complete basic dead-reckoning navigation tasks in themed worlds. Age-appropriate handling of robot-drive geometry and distance-rate problems, and physical drive design constraints round out the engineering experiences.

#### TREC 4: Sensing and Logic

Students build and program robots to complete sensor-assisted navigation tasks in themed worlds.

#### TREC 5: Experiments and Analysis

Students build and program robots in applications focused around responsive real-time autonomy through Repeated Decisions (looped conditionals).

For use with VEX IQ and LEGO EV3 hardware platforms.

Portions of this product are manufactured under license from Carnegie Mellon University.

Courses subject to change.

#### TREC On Ramp: Catch-Up Course

Students learn or review the fundamental programming concepts covered in previous years during a single-year catch-up curriculum. This curriculum component allows middle and high schools to “on-ramp” students who are transferring in from schools that did not offer robotics training.

#### TREC 6: Engineering Explorations

Students will be introduced to engineering principles as they use their previous knowledge of programming and robotic design to solve real-world problems.

#### TREC 7: Data and the World

Students undertake engineering projects that require them to model the physical world using data abstraction.

#### TREC 8: Algorithmic Thinking

Students undertake programming and engineering projects that require their robots to manipulate data abstractions of substantial complexity.

#### TREC 9: Engineering Collaborations

Using the Engineering Process, students will complete second-level engineering challenges requiring them to apply all programming, engineering, and design knowledge learned to date to develop effective designs.

#### TREC 10: Internet of Things

This capstone level course is designed to bring the concepts of industrial design, electronics, programming and connectivity together in a course focused around developing “smart” devices for everyday life.

edSTEM

1300 667 945



# 1. Student Resources

## Robot C Software

eduSTEM virtual and physical robots run off Robot C software designed by Carnegie Mellon University's Robotics Academy. This software has been designed to introduce students to programming using a simple drag and drop interface that quickly allows them master the basic language structure of programming and provides them with the basic tools to perform more complex programming over the later years.



## Physical Robots

Students apply the mathematical and computational thinking skills that they learn by programming and performing activities and games with physical robots. These robots make the program hands-on and engaging, effectively bringing the content to life. Students work in groups to perform activities and challenges such as navigating robots through mazes uses pre-programmed instructions, which provides a sense of gamification and competition to increase engagement. Robot C runs on both Vex and Lego robots.



**eduSTEM**

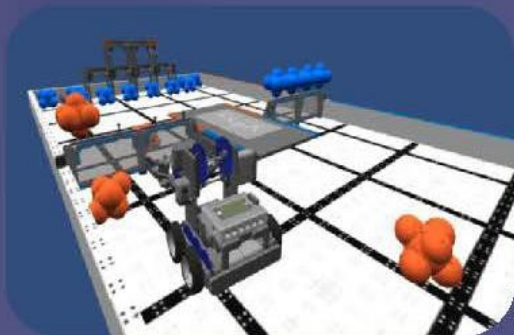


# Student Resources cont...

## Virtual World

The eduSTEM student portal contains a **3D Virtual Worlds** program in which students can test and run their programmed instructions in a simulated, computer game-like environment. This makes activities more efficient in the classroom, as students can run a greater number of tests virtually to perfect their code, before running it on a physical robot.

In addition, the ability to test programs virtual removes the risk of students failing in front of a group, increasing students' willingness to take risks and try something new. Finally, the virtual worlds provides schools with a cost effective option for introducing robotics in the classroom by decreasing the number of physical robots that a school has to purchase.



## Expedition Atlantis

All students are provided with access to **Expedition Atlantis**, a computer game in which students discover and explore the remains of the lost city of Atlantis using submersible robots. **Expedition Atlantis** combines gaming quality graphics and narrative with basic introductory robotic programming skills, maths reasoning and fraction exercises in order to help students build the basic knowledge and competency to perform the unit's later tasks.



**edSTEM**

1300 667 945

# APPLICATION FORMS

Online method is preferred.

If you do not have access to the online method, please complete a paper form on the following pages and return it to your school administration office by Wednesday 19/2/2025.





**PLUMPTON EDUCATION COMMUNITY  
GIFTED AND TALENTED PROGRAMS 2025  
APPLICATION FORM – Please fill out AND  
submit ONE PER GROUP/CLUB**



Student Name: \_\_\_\_\_ School Year: \_\_\_\_\_

Address: \_\_\_\_\_

School: \_\_\_\_\_

Parent/Carer Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_

Email Address (THIS WILL BE POINT OF CONTACT): \_\_\_\_\_

Emergency Contact name and number: \_\_\_\_\_

Medical Conditions and Medication: \_\_\_\_\_

Do you give Permission to Publish: Yes or No (Please Circle)

Which club are you applying for? (Please tick ONE ONLY per application, if on at the same time please preference with numbers)

Robotics and Coding STEM (Years 5-8) Tuesday 3pm – 5pm		Art and Design (Years 5-8) Tuesday 3pm – 5pm		Public Speaking and Debating (Years 5-8) Thursday 3pm – 5pm	
Taiko (Years 5-8) Tuesday 3pm – 5pm		Music Performance (Years 7-11) Wednesday 3pm – 5pm		Forensic Science STEM (Years 5-8) Thursday 3pm – 5pm	
Experimenting with STEM (Years 5-8) Thursday 3pm – 5pm		Dance (Years 5-8) Dance (Years 9-11) Wednesday 3pm – 5pm		Drama (Years 5-10) Thursday 3pm – 5pm	
		Computer Science STEM (Years 5-8) Wednesday 3pm – 5pm		Extension Mathematics (Years 5-10) Thursday 3pm – 5pm	

Please outline why you wish to be involved in a short statement below to support your application:

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Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please return this note to Plumpton High Schools Front Office or your Schools Front Office by Week 4 Wednesday the 19<sup>th</sup> of February 2025.

PLEASE NOTE CLUBS PROGRAMS WILL COMMENCE WEEK 6 TUESDAY THE 3<sup>rd</sup> OF MARCH 2025.





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