



Major & Minor Projects Guide 2023



LONG BAY COLLEGE
Care, create, excel

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GENERAL INFORMATION

The information in this guide is designed to help you carefully choose the projects that you will study at the end of Term four, after the junior exams. Projects are a chance to study something new or to grow a passion you already have.

WHAT ARE PROJECTS?

Projects are an opportunity for Long Bay College students to develop their learning and explore and engage with topics that go beyond the limits of the New Zealand Curriculum. Projects are not general courses but specialised and relate to specific areas of expertise and interest.

Students will select preferences, these preference a projects timetable. Timetables will be shared in Term 4 ready for the start of in the later part of Term 4 (after junior school exams have finished.)

Projects run for approximately 4 weeks and run in 2 hour blocks.

There are two types of project. A **Major** project and a **Minor** project.

Major projects happen 3 times every 5 day cycle. – A student would have 6 hours of contact with their teacher in a cycle.

Minor projects happen 2 times every 5 day cycle. – A student would have 4 hours of contact with their teacher in a cycle.

All students will choose to study 2 Major Projects and 3 Minor Projects.

For Year 9 students – One of the students Minor projects must be computational thinking based. This supports students in engaging with the New Zealand Digital Curriculum.

An example of a student's timetable when projects run is shown below:

In this example Project A and Project B are the student's Major projects. Projects C, D and E are the student's Minor Projects.

Period	Monday	Tuesday	Wednesday	Thursday	Friday
1	Project C	Project B	Project A	Project D	Project A
2	Project C	Project D	Project A	Project D	Project B
3	Project A	Project D	Atawhai	Project E	Project B
4	Project A	Project E	Project B	Project E	Project C
5	Project B	Project E	Project B	Project A	Project C

During the time that projects run; Atawhai sessions will take place on a Day 3 during period 3. This is the same as how Atawhai runs in the rest of the year.

CHOOSING A PROJECT: ADVICE

Projects are designed to be fun, engaging and supportive of students finding and growing a passion and interest. In many cases they can help prepare a student study in subsequent years but they are also designed to support students in learning for life, developing 21st century skills and embedding their ability to self-manage, think critically, relate to others, participate and contribute and use language symbols and texts.

If you would like to know more about a particular project there are lots of staff who can help you. Your Atawhai Leader, Subject Teachers, Heads of Faculty and Deans. Mrs Thomas, our Careers Counsellor, has information on a huge variety of careers and tertiary courses. She is available on 477 9009 ext 839 and is happy to talk with parents. The Long Bay College Careers Centre website has useful information, links to relevant sites and is a good place to start – [Link to Careers Centre website](#).

CHOOSING A PROJECT: SELECTION

Students will be selecting their projects for 2023 in term 2 via a Microsoft form. This will follow discussions with their Atawhai leader.

Students will need to choose:

- A Major, Minor and free choice from each of the groups in the Microsoft form shared with them by their Atawhai teacher.
- **If they are in Year 9 one of their minor projects must be computational thinking based project.** These projects are: Programable robots: Spheroes, Mathematical Minecraft, Python programming for beginners and Algorithms of marvelous MARVEL superheroes -Pseudocode adventures

Projects will then be allocated to students considering their selections and what the College can logistically timetable.

DIGITAL CURRICULUM & ATAWHAI

All schools in New Zealand are required to support students in learning and engaging with the New Zealand Digital Curriculum between Year 1 and 10.

At Long Bay College this happens in our junior courses and also in our Term 4 projects. Students are required to develop an understanding of how to Design and Develop Digital Outcomes (DDDO) and how to engage with Computationally Thinking (CT).

To support a student's development of computational thinking **all Year 9 students are required to select one Computational Thinking based project**. All of the computational thinking projects are minors.

Atawhai will continue during projects with Atawhai leaders working to support the Atawhai programme and the engagement of students in their "Major" and "Minor" projects.

STUDENTS WITH ADDITIONAL LEARNING NEEDS

Learning Support provision during projects –

The Learning Support Faculty will provide support for students with additional learning needs to enable them to participate and contribute to the best of their ability in their selected projects. This includes students in Years 11-13 who are welcome to continue to attend school and participate in projects with our students in the junior school.

Please contact Ms Kristen Evans, SENCo: kevans@lbc.school.nz for further information.

ENGLISH FOR ACADEMIC PURPOSES

Long Bay College provides cutting-edge courses for all English language learners, based on individual needs and chosen pathways. Junior EAP students (Year 9 and 10), along with Year 11 international students with less than three external NCEA exams, will be fully involved in the Junior projects.

'Life skills and survival in New Zealand' is an end of year programme to specifically cater for all senior international students (Year 12 and 13) with less than three external NCEA exams. This programme will cover a range of topics and activities relevant to students' lives in New Zealand as high school students and beyond. See Miss Yun or Mrs Jones for further information on this.

PROJECT DESCRIPTIONS

The projects are generally grouped by the learning areas that have authored them. With the exception of computational thinking projects there are no requirements for a student to take projects from a particular group. Students cannot study multiples of the same project.

The descriptions include a brief outline of the project and the name of a staff member to contact if you would like to know more about that project.

PROJECTS – GENERAL SUMMARY

Computational Thinking projects are in **bold**.

Brief descriptors of a project are in [blue](#)

Faculty	Year 9 - Major	Year 9 Minor	Year 10 - Major	Year 10 - Minor
Commerce	I'm a fashion designer – trash to fashion LBC Lego Masters			It's Infomercial Time The Great Property Challenge Business Challenge Fundraiser 2023
English	Build a world: Foundations of Fantasy	Whodunnit: create your own Murder Mystery Picture book Creator Seriously Sci-Fi	Beyond the page. Build a world: Foundations of Fantasy All the world's a stage: Shakesperean performance	Whodunnit: create your own Murder Mystery Local explorers: exploring our neighbourhood
Global Studies	Story-writing for Bi/Multicultural New Zealand Speak Chinese in Less Than Four Weeks! Ngā taonga takaro: Māori games and innovation	Chinese Calligraphy and Wall art Japanese Origami Making	Speak Chinese in Less Than Four Weeks! Land of the Rising Sun	Ngā taonga takaro: Māori games and innovation Chinese Calligraphy and Wall art Story-writing for Bi/Multicultural New Zealand
Health and PE	The Amazing Race Escape Room: Long Bay Edition	Mindfulness Top Coach!	The Amazing Race	Mindfulness Snack attack: Nutritional Health Hard Wired: Prosthetic Limb design Top Coach!
Mathematics	Number crunch Code breaker: Crypto-math	Programable robots: Spheroos Mathematical Minecraft	Number crunch (P1041) Code breaker: Crypto-math	Figures in History

<u>Performing Arts</u>	High School Musical	Director's chair: Design a performance World of Dance Rock Band Whose line is it anyway?	High School Musical Production Launchpad	World of Dance Digital Music Production Singer songwriter
<u>Science</u>	Rocket Lab Forensics: CSI Long Bay	Freaky Food: Food Chemistry Marvellous microbes	Anatomy: Dissection Doctor Earthquake Defender	Organic Beauty Born to Race - Drag car design
<u>Social Science</u>	Sea of Terror I am legend: Myth Lights, Camera, Action: Make a Film! Engage the Brain: Psychology, real world Volcanic Explosion!	Unpacking the past Journalism	World Racer! Cinematography and performance Digging the past: Archaeology	The inventors! – Lego challenge
<u>Technology</u>	Game maker - 3 in 1 mini games board Gift Hamper Resin River (P0986)	Python programming for beginners Algorithms of marvellous MARVEL superheroes - Pseudocode adventures. Sock Monkeys	Giving a gift with Aroha Laser Cut Gift Design Resin River	Fly fishing Designing Board Games
<u>Visual Arts</u>	Printmaking Skateboard Art		Skateboard Art	Digital Photography Sculpted Worlds and Creature design

All projects will be run subject to student numbers and staffing availability at the Principal's discretion

COMMERCE RELATED PROJECTS

Head of Faculty – Ms Linda Everett

Ext 862

leverett@lbc.school.nz

Y9: LBC LEGO MASTERS (MAJOR)

Calling all budding architects and master builders! Are you ready to take your LEGO skills to the next level? Get ready for an exciting project that will challenge your creativity and unleash your building prowess: LBC LEGO Masters. In this project, get ready to dive into the wonderful world of LEGO and embark on a journey of imagination and construction. Whether you're a seasoned LEGO enthusiast or just starting your building adventure, this project is sure to inspire and amaze.

Teacher in charge – Mr Kyle Naidoo

Y9: I'M A FASHION DESIGNER – TRASH TO FASHION (MAJOR)

Join us on a mission to turn ordinary trash into fabulous fashion statements. In this project, you'll become a fashion designer with a twist, using your imagination and sustainability superpowers to transform everyday waste into stylish outfits. Through a series of fun and engaging activities, we'll guide you on a journey to explore the world of upcycling and sustainable fashion.

Teacher in charge – Ms Barbara Etzinger

Y10: BUSINESS CHALLENGE – FUNDRAISER 2023 (MINOR)

Attention all young entrepreneurs and aspiring business moguls! Are you ready to unleash your inner business genius and make a real impact in your community? Get ready for an exhilarating project that will ignite your entrepreneurial spirit and empower you to create positive change: Business Challenge! In this project you'll dive headfirst into the world of entrepreneurship, fundraising, and market days. This is your chance to develop a business idea, raise funds for a meaningful cause, and showcase your products or services to the world.

Teacher in charge – Ms Linda Everett

Y10: IT'S INFOMERCIAL TIME – FILM YOUR OWN INFOMERCIAL (MINOR)

Attention all aspiring actors and persuasive speakers! Get ready to showcase your creativity and salesmanship in this exciting project. Calling all students with a flair for entertainment, this is your chance to shine in the world of infomercials. In this project, you will step into the shoes of a product pitchman or pitchwoman and create your very own infomercial. Prepare to captivate your audience with engaging demonstrations, catchy jingles, and persuasive storytelling. It's time to unleash your inner sales superstar!

Teacher in charge – Ms Barbara Etzinger

Y10: THE GREAT PROPERTY CHALLENGE (MINOR)

Calling all aspiring interior designers and creative visionaries! Are you ready to bring your design dreams to life? Get ready for an exciting project that will ignite your imagination and unleash your decorating skills: The Great Property Challenge. In this project you'll have the opportunity to design the décor of your own dream house. From selecting furniture and arranging spaces to adding personal touches, this project supports you in learning the fundamentals of interior design and allows you to become the mastermind behind a stunning and stylish home.

Teacher in charge – Ms Linda Everett

ENGLISH RELATED PROJECTS

Head of Faculty - Ms Jennie Taylor Ext 867 jtaylor@lbc.school.nz

Y9 & Y10: BUILD A WORLD: FOUNDATIONS OF FANTASY (MAJOR)

Get ready to embark on an epic adventure where you become the mastermind behind a fantastical world of your own creation. Welcome to Foundations of Fantasy! You'll unleash your creativity and imagination as you craft your very own world. Get ready for a world of heroes, quests, and magical encounters, as you bring your vision to life.

Teacher in charge – Ms Sharon Powell

Y9 & 10: WHODUNNIT: CREATE YOUR OWN MURDER MYSTERY (MINOR)

The mysterious world of murder mysteries and suspense awaits! In this project you'll embark on a thrilling journey to study the art of the mystery genre. Prepare to immerse yourself in puzzling plots, craft intriguing characters, and ultimately create your very own murder mystery narrative and game.

Teacher in charge – Ms Maria Hughes

Y9: PICTURE BOOK CREATOR (MINOR)

Are you an aspiring author or illustrator? Are you ready to embark on a delightful adventure that will ignite the imaginations of young readers? Welcome to the enchanting project: Picture Book Creator! In this project, you'll immerse yourself in the world of early readers and discover the magic of creating picture books that captivate and engage young minds. Embrace the power of illustrations and create picture books that will ignite a lifelong love for reading. Let your creativity take flight and enchant the hearts and minds of early learners with the magic of picture books!

Teacher in charge - Ms Jennie Taylor

Y9: SERIOUSLY SCI-FI (MINOR)

Are you fascinated by time travellers and cosmic explorers? Resisting this project is futile! Get ready to embark on an extraordinary journey through the captivating realm of serious science fiction. You'll delve into the fascinating history of science fiction and explore the limitless boundaries of the genre. Prepare to be transported to futuristic worlds, encounter advanced technologies, and unravel mind-boggling mysteries. Join us and you'll explore the vastness of the genre, gain insights from iconic works, and create your own extraordinary sci-fi writing piece. Prepare to boldly go where no student has gone before, and let your creative brilliance illuminate the stars!

Teacher in charge – Mr Cameron Lacey

Y10: BEYOND THE PAGE. (MAJOR)

Calling all young artists and wordsmiths! Get ready to embark on a mesmerizing journey where art and poetry intertwine to create masterpieces that stir the soul. Welcome to the captivating project: Beyond the page!

In this project you'll explore the magical connection between visual art and poetic expression. Get ready to delve into the world of emotions, imagery, and creativity as you discover the power of combining brushstrokes with verses.

Teacher in charge – Ms Anne Millar

Y10: LONG BAY LOCAL EXPLORERS: EXPLORING OUR NEIGHBOURHOOD (MINOR)

Embark on an exciting expedition through the hidden gems of your own backyard. You'll dive deep into the wonders of our local area, unearth fascinating tales from local historians, and hone your skills in the art of travel writing. Journey into Long Bay's Past- step back in time and immerse yourself in the captivating history of Long Bay.

Teacher in charge – Mrs Karen le Roux and Ms Katherine Thomas

Y10: ALL THE WORLD'S A STAGE: SHAKESPEARE (MAJOR)

Hear ye, hear ye! Calling all aspiring actors, wordsmiths, and lovers of the stage! Get ready to immerse yourself in the timeless world of William Shakespeare, the master of the theatre. In this project specially designed for young thespians, you'll embark on an exhilarating journey through the captivating plays and poetic brilliance of William Shakespeare. Prepare to delve into the depths of his works, select a scene, and bring the Bard's words to life on stage. Immerse yourself in the beauty of his language, explore the depths of his characters, and bring forth the power of performance. Prepare to captivate audiences and leave a lasting impression as you shine in the spotlight of Shakespearean theatre!

Teacher in charge - Mrs Stephanie Curtis

GLOBAL STUDIES RELATED PROJECTS

Y9: JAPANESE ORIGAMI MAKING (MINOR)

A fascinating journey into the ancient art of origami and the captivating world of paper folding awaits you. In Japanese origami making you'll dive into the rich history and artistry of origami. Get ready to unlock the secrets of this ancient craft, starting from the basics and progressing to more intricate paper models. But that's not all – you'll also explore various other forms of paper art that will ignite your creativity. Start your journey with the fundamentals of origami. Learn essential folding techniques, understand the importance of precise creases, and familiarize yourself with common origami symbols and diagrams. Begin with simple models like the classic paper crane and progress to more complex designs as you gain confidence and skill. Unleash your creativity, fold your way to mastery, and let your paper creations spark joy and wonder in the hearts of all who behold them!

Teacher in charge – Ms Victoria Yun

Y9 & Y10: CHINESE CALLIGRAPHY & WALL ART (MINOR)

Dive into the graceful strokes of the brush and unlock the profound beauty of this ancient art form. Our project unveils a mesmerizing fusion of tradition and innovation, celebrating the timeless elegance of Chinese culture. Discover the fascinating world of calligraphy as we delve into its historical significance and the mastery required to create each stroke. Immerse yourself in the intricate techniques, from the delicate balance of ink and paper to the graceful movements of the artist's hand. Witness the transformative power of characters as they come to life, conveying profound meanings and capturing the essence of the written word.

Teacher in charge – Ms Xiaoman Shao

Y9 & Y10: STORY-WRITING FOR BI/MULTICULTURAL NEW ZEALAND (MAJOR IN YEAR 9) (MINOR IN YEAR 10)

Embark on a unique project that celebrates diversity, culture, and the power of storytelling. In this project specially designed for young visionaries like you, you'll have the opportunity to create a bilingual storybook for children growing up in bicultural or multicultural environments in present-day New Zealand. Let your experiences and wisdom shine through as you write and illustrate a children's book that will inspire, educate, and entertain young readers. Unleash your creativity, weave magic with your words, and let your illustrations illuminate the path toward a more inclusive and harmonious future. Together, let's celebrate the beauty of bicultural and multicultural environments in New Zealand through the power of storytelling!

Teacher in charge – Ms Victoria Yun

Y9 & Y10: NGĀ TAONGA TAKARO: MĀORI GAMES AND INNOVATION (MAJOR IN YEAR 9) (MINOR IN YEAR 10)

Step back in time into Te Ao Māori – the traditional Māori world. Play a variety of games that Māori used to stay mentally sharp and physically fit and agile. Spend time in nature developing your bush survival skills, make your own artefacts utilising the elements of wind, water, fire, and earth, and consider how these skills and knowledge are useful today and in the future. Get ready to ignite your curiosity and creativity, deepen your connection with nature, and embrace Māori knowledge!

Teacher in charge – Whaea Olivia Schertenleib

Y9 & Y10: SPEAK CHINESE IN LESS THAN FOUR WEEKS! (MAJOR)

Embark on an extraordinary linguistic journey and unlock the captivating world of Mandarin Chinese in just four weeks. Our immersive language project is designed to empower you with the essential tools and skills needed to confidently speak and understand Chinese. Through a blend of cutting-edge technology, engaging multimedia resources, and personalized coaching, you will master the fundamentals of pronunciation, vocabulary, grammar, and essential phrases. As you advance, you'll develop a deeper understanding of the Chinese language's intricacies, unlocking the ability to express yourself fluently and naturally.

Teacher in charge – Ms Xiaoman Shao

Y10: LAND OF THE RISING SUN (MAJOR)

Are you captivated by anime, manga, delicious cuisine, or iconic Japanese brands? This is the perfect project for you! Welcome to “The land of the rising sun”. From its vibrant pop culture to its rich traditions, you'll explore various facets of Japanese culture and language. Immerse yourself in the captivating world of Japanese culture, language, and creativity. From anime and cuisine to language and traditions, let your passion guide you as you delve into the richness and diversity of Japan. Get ready to ignite your imagination, showcase your skills, and uncover the hidden treasures that make Japan such a fascinating and beloved country!

Teacher in charge – Mr Chris Oversluizen

HEALTH & PHYSICAL EDUCATION PROJECTS

Head of Faculty –Mrs Mo Gleeson Ext 813

mgleeson@lbc.school.nz

Y9 & Y10: MINDFULNESS (MINOR)

Step into the world of mindfulness and discover the incredible power it holds to nurture your mind, body, and spirit. In this project you'll have the opportunity to explore the art of mindfulness and engage in a variety of activities that promote relaxation, focus, and self-awareness. From the soothing practice of meditation to the creative expression of zen doodles and adult colouring-in, you'll discover an array of mindful techniques that can bring peace and balance to your everyday life. Get ready to nurture your mind, body, and spirit, and cultivate a lifelong practice of mindfulness that will empower you to navigate life's journey with grace and tranquillity.

Teacher in charge – Ms Lucy Doran

Y9: ESCAPE ROOM: LONG BAY EDITION (MINOR)

Sharpen your interpersonal skills and unleash your problem-solving prowess in this thrilling project! Calling all budding masterminds and solution-seekers! Are you ready to tackle exciting challenges and put your problem-solving abilities to the test? Join us on an exhilarating journey where you'll encounter a range of stimulating activities designed to enhance your critical thinking, assertiveness, communication, and other essential interpersonal skills. Immerse yourself in thrilling challenges, harness your problem-solving skills, and nurture essential interpersonal qualities. Get ready to think critically, communicate effectively, collaborate with others, and emerge as a confident and resourceful problem solver. The future belongs to those who can navigate obstacles with ingenuity and grace, so gear up and embark on this exhilarating journey of discovery and growth!

Teacher in charge – Mr Mark Carroll

Y9 & 10: TOP COACH! (MINOR)

Get ready to step into the world of sports leadership and ignite your potential as a game-changer! Are you passionate about sports and interested in discovering what it takes to be a great leader in the sporting arena? In this dynamic project, you'll dive into the captivating realm of sports leadership, learning from experts who have excelled in their fields. You'll have the unique opportunity to hear first-hand experiences, gain valuable insights, and develop your own leadership skills to make a lasting impact. Develop the confidence to lead by example and inspire others to greatness. Embrace the opportunity to lead a Community of Learning Primary school event, where you'll inspire and empower younger students. Unleash your potential, ignite your passion, and step into the world of sports leadership, where greatness awaits!

Teacher in charge – Mr Paul O'Leary

Y9 & Y10: THE AMAZING RACE (MAJOR)

Get ready for an action-packed adventure that will push your limits, ignite your teamwork skills, and unleash your full potential! Welcome to the amazing race! Are you up for the ultimate test of physical and mental prowess? Join us in a series of exhilarating activities that will challenge you in ways you've never imagined. In this project, you'll work collaboratively with your peers, facing obstacles, conquering goals, and developing essential interpersonal skills along the way. You'll embark on a thrilling adventure of physical and mental challenges, teamwork triumphs, and personal growth. Prepare to push your limits, overcome obstacles, and develop invaluable interpersonal skills along the way. Get ready to unleash your potential, embrace the power of teamwork, and emerge as a true champion in the face of challenge!

Teacher in charge – Mr Kevin Parslow

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Y10: HARD WIRED: PROSTHETIC LIMB DESIGN (MINOR)

Are you fascinated by the power of design and eager to make a positive impact on people's lives? In this groundbreaking project, you'll dive into the world of prosthetic limbs, combining scientific knowledge with your creative problem-solving skills. Together, we'll embark on a mission to develop functional and innovative prosthetic limbs that have the potential to change lives. Step into the realm of prosthetic limbs and delve into the fascinating science behind their design. Learn about the intricate structure of the human body, including bones, joints, and basic muscles. Understand the challenges faced by individuals in need of prosthetic limbs and the importance of creating solutions that go beyond the basic functionalities. Get ready to unlock your creativity and engage in the design process!

Teacher in charge – Mrs Mo Gleeson

Y10: SNACK ATTACK: NUTRITIONAL HEALTH (MINOR)

Are you curious about what makes a healthy diet and how the food we consume fuels our bodies? In this project, you'll delve into the world of nutrition, uncovering the secrets behind those protein shakes and muesli bars. Get ready to become a savvy snack connoisseur as you learn, create, and share your own nutritious snack creations! You'll unlock the secrets of a healthy diet, explore the world of nutrition, and create your very own nutritious snack masterpieces. Get ready to savour the joy of delicious and nourishing foods, while empowering yourself and others to make informed and healthy choices. Let's snack smart and fuel our bodies for a lifetime of vitality and well-being!

Teacher in charge – Mrs Lisa Lehan

MATHEMATICS RELATED PROJECTS

Head of Faculty –Mr Tim Spratt

Ext 873

tspratt@lbc.school.nz

Y9 & Y10: CODE BREAKER: CRYPTO-MATH (MAJOR)

Do you have a knack for solving mysteries and cracking codes? Are you fascinated by the art of secrecy and the power of encryption? In this project, you'll become a skilled cryptologist, delving into the intriguing realm of codes and ciphers. Prepare to sharpen your problem-solving skills and explore the fascinating connections between mathematics and cryptography! Get ready to embark on an exhilarating journey filled with problem-solving challenges, mind-bending puzzles, and the thrill of cracking cryptic messages. Unlock the secrets of code together and become a masterful Code Breaker!

Teacher in charge –Mr Tim Spratt

Y9 & Y10: NUMBER CRUNCH (MAJOR)

The ultimate math adventure that will push your skills to the limit awaits you! Welcome to the exhilarating project: Number crunch! embrace the excitement of advanced algebra. This project is full of mind-bending puzzles, collaborative problem-solving, and the thrill of unlocking mathematical secrets. Become a master of mathematical excellence!

Teacher in charge – Mrs Elizabeth van Greuning

Y9: MATHEMATICAL MINECRAFT (MINOR, COMPUTATIONAL THINKING)

Are you a fan of the virtual world of Minecraft? Are you ready to explore the limitless possibilities of math within this immersive digital realm? In this project, you'll dive into the world of Minecraft, utilizing its unique features as a powerful tool to understand and solve fascinating mathematical concepts. Prepare to witness the incredible synergy between mathematics and the virtual world of Minecraft. Discover how mathematical principles, such as geometry, spatial reasoning, and problem-solving, play a crucial role in building and navigating Minecraft's vast landscapes. Immerse yourself in a world where creativity meets mathematical exploration! Witness the beauty of math come to life, solve interactive puzzles, collaborate with like-minded peers, and showcase your creative and mathematical genius. Unleash the power of math within Minecraft and embark on an extraordinary journey of discovery and exploration!

Teacher in charge – Mr Marius Sandu

Y9: PROGRAMABLE ROBOTS: SPHEREOS (MINOR, COMPUTATIONAL THINKING)

Get ready to embark on an exciting coding adventure like no other! Are you fascinated by robots and love the thrill of problem-solving? In this project, you'll take on the exhilarating challenge of programming Sphero, the dynamic robotic sphere, to test bridges, go on rescue missions, create shapes and play Pictionary. You will navigate an original maze of your own creation. Get ready to gather data, analyse routes, and build a program that will guide Sphero through a world of mathematical mayhem!

Teacher in charge – Mr Marius Sandu

Y10: FIGURES IN HISTORY (MINOR)

A captivating journey through time awaits you! Witness the astonishing role of mathematics in shaping human history! Have you ever wondered how mathematics has influenced the course of civilization? In this project, you'll delve into the fascinating intersections of math and history, uncovering the audacious and sometimes devastating impact of mathematical concepts throughout the ages. Consider engineering marvels, explore the Renaissance of mathematical thought, and uncover the strategic role of mathematics in warfare. In this project you will unveil the untold stories of mathematics in human history!

Teacher in charge – Mr Tim Spratt

PERFORMING ARTS RELATED PROJECTS

Head of Faculty –Ms Dannielle Savage

Ext 894

dsavage@lbc.school.nz

Y9: DIRECTOR'S CHAIR: DESIGN A PERFORMANCE (MINOR)

Have you ever wanted to create your own play? Calling all aspiring playwrights and storytellers! Get ready to unleash your creativity and bring your imaginative ideas to life. Grab your pen, ignite your imagination, and let your creativity take centre stage. Together, we will embark on a thrilling adventure, creating a play that will leave a lasting impression on both you and your audience. Get ready to unleash your storytelling prowess and shine as a playwright in "Directors Chair: Design a performance".

Teacher in charge –Ms Dannielle Savage

Y9: ROCK BAND (MINOR)

Calling all aspiring rock stars! Get ready to ignite the stage and rock out with your very own band in the electrifying project: Rock Band! Do you have a passion for music? Are you ready to unleash your inner rockstar? In this practical course, you'll have the incredible opportunity to join a small rock band, where you'll dive into the art of performing as an ensemble and develop your skills on your chosen instrument. Feel the adrenaline rush as you step onto the stage, captivating the audience with your incredible musical prowess. Showcase your band's unique style, energy, and chemistry, leaving the crowd begging for an encore. Witness the incredible synergy that emerges when talents unite. Rock the stage and leave the world awestruck with your electrifying performances!

Teacher in charge – Mr Jackson Kyle

Y10: PRODUCTION LAUNCHPAD (MAJOR)

Are you fascinated by the behind-the-scenes magic that brings a theatrical production to life? Do you dream of taking charge, making creative decisions, and orchestrating the perfect ensemble of elements? In this innovative project, you'll dive deep into the art of producing, replacing the traditional devising unit with a hands-on experience like no other. Discover the multifaceted role of a producer and the crucial responsibilities they hold in bringing a theatrical production to fruition. Learn about the creative vision, budgeting, scheduling, marketing, and logistical aspects that make a production successful. Immerse yourself in the world of theatre management and gain a comprehensive understanding of what it takes to produce a show from start to finish.

Teacher in charge –Ms Dannielle Savage

Y10: SINGER/ SONGWRITER (MINOR)

Find your musical voice in this captivating project, begin a Songwriting and Performance Journey! Do you have a passion for music and a desire to express yourself through original songs? Are you ready to take center stage and share your heartfelt melodies with the world? In this unique project, you'll dive into a mixture of practical and theoretical components, where you'll be encouraged to write and perform your very own songs.

Throughout the project, you'll have the chance to showcase your original songs in performances. Share your unique voice and let your compositions resonate with others. Experience the joy of connecting with an audience through your heartfelt lyrics and melodies. Get ready to leave a lasting musical imprint and inspire others with your unique voice. Write, perform, and create unforgettable musical moments together!

Teacher in charge –Ms Rhianna Maker

Y9 & Y10: WORLD OF DANCE (MINOR)

Calling all budding dancers and enthusiasts of movement! Get ready to embark on an exhilarating journey of rhythm, culture, and self-expression with our captivating project: "World of Dance: Unleash Your Groove"! Are you passionate about the art of dance? Do you dream of stepping into different cultures and exploring the vibrant rhythms and movements they have to offer? In this captivating project, you will have the extraordinary opportunity to immerse yourself in a variety of dance styles from around the world, while discovering the power of collaboration and unleashing your own creative potential. Join us on this mesmerizing journey as we traverse continents, rhythms, and cultures through the universal language of movement. Get ready to discover the joy, self-expression, and camaraderie that dance brings to our lives.

Teacher in charge – Ms Kiaya Lupi

Y10: DIGITAL MUSIC PRODUCTION (MINOR)

Are you an aspiring music producer? A digital maestro in the making? Get ready to dive into the exciting world of music creation and production with our electrifying project: "Digital Music Production. Are you passionate about music and fascinated by the endless possibilities of the digital realm? Do you dream of composing your own tracks, experimenting with different sounds, and sharing your musical creations with the world? In this captivating project, you will harness the power of technology and embark on a thrilling journey of musical exploration and production using the popular digital platform, BandLab. Please note that this project requires access to a computer and headphones to fully engage in the digital music production process.

Teacher in charge – Mr Jackson Kyle

Y 9 & 10: HIGH SCHOOL “MINI” MUSICAL (MAJOR)

Do you like performing, singing, acting or want to learn how to? Do you like working with other people to create high level performances? Would you like to be part of a “Mini Musical” show which involves some singing, acting and dancing? Become part of our “Mini Musical.” This will be created and rehearsed during project time – solo, duo and chorus singing will be explored and this mini musical will be put together and be ready for performance.

Teacher in charge – Ms Rhianna Maker

Y9: WHOSE LINE IS IT ANYWAY? (MINOR)

Step into the exhilarating world of improvisation with "Whose Line Is It Anyway?" Discover the art of thinking on your feet, unleashing your creativity, and embracing the joy of spontaneous performance. This immersive journey will ignite your imagination and sharpen your wit. Through a series of dynamic workshops and engaging exercises, you'll learn the fundamental principles of improvisation, honing skills such as active listening, quick thinking, and collaborative storytelling. Through group activities and games, you'll build trust, foster teamwork, and develop the confidence to take risks. Discover the incredible power of "yes, and" as you learn to build upon ideas, create compelling characters, and craft hilarious scenes.

Teacher in charge – Ms Dannielle Savage

SCIENCE RELATED PROJECTS

Head of Faculty – Mrs Samantha Lewis

Ext 871

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Y9: MARVELLOUS MICROBES (MINOR)

Why are we using so many antibiotics when there are natural sources of antimicrobial products right in our back yard! In this project, you will investigate what bacteria, fungi and viruses need to grow. You will then find out how antimicrobial chemicals work and research plant extracts to make your own scientifically tested and proven antimicrobial balm to use at home.

Teacher in charge – Ms Micaela Baard and Dr Hayley Hardy

Y9: FREAKY FOOD: FOOD CHEMISTRY (MINOR)

How well do you really know what you are putting into your body? Why do foods taste and smell the way they do? Can we trick the brain into thinking we are eating one thing when we are eating something completely different? In this project you will produce a recipe book full of amazing foods that really fool your brain.

Teacher in charge – Mr Brad Simmons

Y9: FORENSICS: CSI LONG BAY (MAJOR)

Want to become a forensic detective? Find out about the scientific techniques used to catch a murderer by analysing the evidence found at a cold case crime scene and presenting your findings to solve the case.

Teacher in charge – Ms Alicia Chan and Ms Gina O’Sullivan

Y9: ROCKET LAB (MAJOR)

Want to be a flight engineer? Take up the challenge and use physical principals of aero and fluid dynamics to design and build a water rocket that stays in the air for the longest time.

Teacher in charge – Dr Shreyoshi Ghosh

Y10: ANATOMY: DISSECTION DOCTOR (MAJOR)

Want to go into the medical field? In this project, you will learn dissection skills to dissect a range of by dissecting different animal organs. During your dissections, you will add to and produce a detailed digital portfolio to show your learning about how the organs work and what can go wrong with them. This is not for the squeamish!

Teacher in charge – Dr Hayley Hardy and Mrs Samantha Lewis

Y10: BORN TO RACE: DRAG CAR DESIGN (MINOR)

Build the ultimate gas powered drag car using your design and engineering skills. You will design your car by learning about the physics behind the design. You will then build and scientifically test your design to produce the fastest car in Year 10!

Teacher in charge – Mr Andrew Illman

Y10: EARTHQUAKE DEFENDER (MAJOR)

Shake, rattle and roll! Test your design skills against one of natures greatest forces. Build a shake table and test your ultimate house designs to withstand different seismic wobbles. Scientifically test different base isolators and evaluate which materials defend your house against the biggest quakes.

Teacher in charge: Ms Rebecca Pringle and Mrs Gina O’Sullivan

Y10: ORGANIC BEAUTY (MINOR)

How does science relate to the beauty industry and health? In this workshop, you will learn about the chemical properties of oils, waxes and essential plant oils. You will then learn how to use everyday chemicals to make aromatherapy products such as lip balms, bath bombs and room scents to meet the well being needs of a person of your choice

Teacher in charge – Mrs Ashley Davies

SOCIAL SCIENCES RELATED PROJECTS

Head of Faculty – Miss Lauren Wing

Ext 863

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Y9: UNPACKING THE PAST (MINOR)

What are the major events that have shaped our world? How have these events changed our futures? This project showcases some of the big events of history, and the gives students a chance to dig into an event of their choosing through further research and learning. Students then work to build a diorama of their event – showing the important and interesting details visually and creatively.

Teacher in charge – Mr Terry Chee

Y9: SEA OF TERROR (MAJOR)

Embark on a thrilling adventure as we delve into the world of shipwrecks! In this project, we will explore the fascinating stories of famous shipwrecks from around the globe, uncover the mysteries of lost treasures, and discover what happens to them underwater. We'll explore the dangers that sailors and passengers faced on the high seas, including storms, piracy, and other unexpected perils as well as the wrecks of major shipping disasters.

Teacher in charge – Miss Lauren Wing

Y9: I AM LEGEND: MYTH (MAJOR)

Enter the world of the ancients! Learn about mythological beasts and monsters. Get to know Hercules, Zeus, Persephone, Freya, and more! Gods, goddesses, Demigods, heroes, heroines and monsters from a range of cultures will feature in this project as you learn more about how cultures integrated different characters and character types into their mythologies. Unpack creation, nature and charter myths and design your own mythology stories and characters.

Teacher in charge – Mr Dean Thompson

Y9: JOURNALISM (MINOR)

Telling the stories of our time and telling the stories we need to know! Educating your peers about the big issues affecting them! This project is focused on the art form of journalism. You will plan, design, and produce a class magazine, taking on roles such as editor, writer and photographer while also considering advertising, design and layout.

Teacher in charge – Mr Dean Thompson

Y9: LIGHTS, CAMERA, ACTION! (MAJOR)

Students will make a film as a class taking on roles from writing, camerawork, editing, special fx, costume, set design, prop making, sound design, to performance. They will learn the basics of acting and directing for film. They will collaborate as a large production team taking on specific roles and creating a write, shoot, edit and produce their own short film.

Teacher in charge – Miss Adrienne Bishop, Miss Sharon Powell

Y9: ENGAGE THE BRAIN: PSYCHOLOGY (MAJOR)

What's in your head? How much do you know about the brain? This project is an introduction to the domain of Psychology. You will get the chance to learn more about what psychology actually is, know more about the brain and the role it plays, learn about major research and case studies from the past and today. We will learn about and attempt some simple experiments and practical studies as a class.

Teacher in charge – Mr Eric Wheeler

Y9: VOLCANIC EXPLOSION! (MAJOR)

This project explores the deadly nature of volcanoes and their eruptions. With Auckland precariously sitting on a volcanic field, we will look at our local volcanoes and explore the implications of an eruption in our area, as well as further afield. We will also look at the cultural significance of volcanoes and consider the role they have played in the lives of people and groups.

Teacher in charge – Miss Victoria Brown, Miss Jess Munt

Y10: THE INVENTORS – LEGO CHALLENGE (MINOR)

What are the major inventions of our time? How do they work and how have they shaped human history? And, can we build them out of Lego? This project combines History and Lego, as we seek to look at a series of major inventions, learning about their origins, their form and function and their significance, before competing to build functional models of the inventions out of Lego.

Teacher in charge – Miss Lauren Wing

Y10: WORLD RACER (MAJOR)

Travel the world with this project and discover where tourists go and why. Join us as we explore new and exciting fields of Tourism development such as Dark Tourism, Space Tourism, Foodie tourism and many more, serving as inspiration for you creating your own leg of The Amazing Race.

Teacher in charge – Mrs Justine McIntosh, Miss Jess Munt

Y10: CINEMATOGRAPHY AND PERFORMANCE (MAJOR)

This project is for teaching students about the basics of cinematography leading to the production of an independent mini film. Students will learn both basic and intermediate camera skills, the basics of composition, and lighting for meaning. They will learn to act and direct a group of actors. Then apply those skills in developing their own individual mini-film.

Teacher in charge – Miss Adrienne Bishop, Miss Sharon Powell

Y10: DIGGING THE PAST (MAJOR)

What is archaeology? What can it tell us about the past, and how can we use it in the future? This project explores archaeology, looking at methods and significant finds. We will also look at archaeology in our local area, with the opportunity to practice what we have learnt in various simulations and test experiences.

Teacher in charge – Mr Martyn Longstaff

TECHNOLOGY RELATED PROJECTS

Head of Faculty – Ms Jana Durdevic

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Y9: SOCK MONKEYS – (MINOR)

Embark on a heart-warming journey of creativity and compassion in our unique project, "Sock monkeys." Join us as we guide students through the art of deconstructing a humble pair of socks, transforming them into adorable sock monkey toys. With each stitch and snip, these socks come alive, becoming cherished companions for children at Starship Hospital.

Teacher in charge – Ms Jana Durdevic and Ms Chloe McIsaac

Y9: GIFT HAMPER (MAJOR)

A delicious culinary adventure awaits you in this with our project, "Preserve and Share." Join us as we guide students through the art of preserving seasonal fruits and vegetables, crafting flavourful chutneys and delectable jams. With each jar filled and labelled, we not only create tasty treats but also spread joy and warmth to both our local rest home and our own families. Together, we can create lasting memories and nourish both the body and soul through the art of preserving and sharing.

Teacher in charge – Ms Debra Scragg

Y9/10: RESIN RIVER (MAJOR)

Students will engage in research into natural forms and shapes to produce a creative wooden product that includes coloured resin layers. Ignite your creativity and explore the art of woodworking in this exciting project. Join us as we guide students through a journey of learning, skill development, and safety in the world of woodworking, culminating in the creation of stunning projects infused with vibrant colored resin. Unlock your potential as a woodworking artist. Develop your knowledge, skills, and safety in woodworking, and witness the magical transformation that occurs when wood and resin unite. Let your creativity soar as you create masterpieces that are sure to leave a lasting impression.

Teacher in charge – Mr Jeff Evans

Y9: ALGORITHMS OF MARVELOUS MARVEL SUPERHEROES -PSEUDOCODE ADVENTURES -CREATE AND LEARN CODE -MICRO:BIT: (MINOR, COMPUTATIONAL THINKING)

This immersive experience is designed for students eager to explore the world of algorithms while delving into the realm of their favourite Marvel superheroes. Through hands-on activities, students will create and learn code using the powerful Micro:bit platform. In "Algorithms of Marvellous Marvel Superheroes," students will discover the fascinating world of pseudocode. Pseudocode serves as a blueprint for coding, allowing students to plan and visualize the steps required to bring their superhero adventures to life. Through engaging challenges and interactive lessons, students will learn to think algorithmically, breaking down complex tasks into manageable sequences of instructions.

Teacher in charge –Mr Fazul Khan

Y9: PYTHON PROGRAMMING FOR BEGINNERS (MINOR, COMPUTATIONAL THINKING)

In "Python Programming for beginners," students will take their first steps into the realm of coding. Led by our knowledgeable teachers, they will learn the fundamentals of Python, including its syntax and structure. Through interactive lessons and hands-on exercises, students will gain a solid foundation in programming concepts, enabling them to develop their own programs from scratch. Students will utilize various programming tools. Notepad++ will serve as their coding environment, providing a user-friendly platform for writing and editing Python code. Python Turtle will add a visual and interactive dimension to their programs, allowing them to create captivating graphics and animations. Additionally, Code Combat will immerse students in a gamified learning experience, reinforcing their programming skills through engaging challenges and quests.

Teacher in charge – Mr Fazul Khan and Mr Tony Bailey

Y9: 3 IN 1 MINI BOARD GAME (MAJOR)

Get ready for exhilarating journey of creativity and craftsmanship with our innovative project, "Mini Games Board: Crafting Adventures." Join us as students learn the art of using a variety of tools and machinery to bring together an array of materials, including brass, aluminium, timber, and acrylic. Through their skilful hands, each individual outcome seamlessly merges to construct a remarkable 3-in-1 mini games board, designed for portable entertainment. Let your creativity shine as you craft a mini games board that brings joy and entertainment wherever it goes. Get ready to embark on an unforgettable journey of skill, imagination, and endless fun.

Teacher in charge – Mr Matt Overington

Y10: GIVING A GIFT WITH AROHA (MAJOR)

Indulge your sweet tooth and ignite your culinary creativity in our delightful project, "Sugar Cookery and Gingerbread Adventures." Designed for students eager to explore the world of confectionery, this project will guide them through the art of fudge making using different techniques and the mastery of baking skills to create scrumptious gingerbread cookies. With a dash of imagination, students will also design unique labels for their delectable creations. Students will embark on a journey into the realm of sweet treats. They will learn the secrets of fudge making, experimenting with various techniques such as stove or microwave cooking to achieve perfect consistency and flavour. Under the guidance of experienced instructors, students will discover the alchemy of sugar, butter, and other ingredients, transforming them into mouth watering fudge delights.

Teacher in charge – Ms Anthea Flusk

Y10: LASER CUT GIFT DESIGN (MAJOR)

This project is designed to empower students with the skills and knowledge to bring their design ideas to life using Computer-Aided Design (CAD) and laser cutter technology. Students will learn the fundamentals of CAD software, exploring its tools and features to generate innovative design ideas. Students will hone their design skills, incorporating elements of functionality, aesthetics, and problem-solving into their creations. Through hands-on experiences, students will explore different materials and techniques, discovering the precise settings required for successful laser cutting. Get ready to become a master of innovation, craftsmanship, and the exciting world of design and laser manufacturing.

Teacher in charge – Ms Jana Durdevic and Ms Chloe McIsaac

Y10: DESIGNING BOARD GAMES – (MINOR)

This project is specially designed for students to explore the realm of game modification, fostering teamwork and creativity as they develop their own unique board game. To add a touch of authenticity, the final games will be reviewed and critiqued by an industry professional, providing valuable insights and feedback. Students will dive into the world of game mechanics and design. Through a series of evolving steps, they will experiment with modifying existing dice-based games, exploring new rules, challenges, and twists to enhance gameplay. Students will work in teams, collaborating and brainstorming ideas to transform these games into something truly extraordinary. Get ready to embark on an unforgettable journey of creativity, teamwork, and critical thinking. A game-changing adventure awaits!

Teacher in charge – Mr Nick Booth

Y10: FLY FISHING – (MINOR)

Prepare for an immersive journey into the world of fly fishing. This project is designed for students eager to explore the art of fly casting, understand the intricacies of different fly lines and techniques, and delve into the fascinating world of trout and freshwater ecology. Join us as we dive into the techniques, knowledge, and conservation efforts surrounding this beloved sport. Get ready to cast your line, reel in knowledge, and embark on a journey that will shape your appreciation for fly fishing and the preservation of our natural heritage.

Teacher in charge – Mr Allan French

VISUAL ARTS RELATED PROJECTS

Head of Faculty – Mrs Liese Strong

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Y9 & Y10: SKATEBOARD ART (MAJOR)

Students will design and paint a skateboard deck. They will look at the work of 'popular culture' artists: Shane Hansen, Ruben Patterson, Kelsey Taratoa and Jean-Michel Basquiat to inspire these skateboard artworks.

Teacher in charge – Ms Hope Noblio

Y9: PRINTMAKING (MAJOR)

Students will design and construct a collagraph printing plate based on a chosen theme. They will then learn printmaking methods using different papers and coloured inks to produce a series of beautiful art prints.

Teacher in charge – Ms Hope Noblio

Y10: DIGITAL PHOTOGRAPHY (MINOR)

Students will learn how to get creative with Digital Photography techniques. They will learn photography techniques using DSLR cameras, photo studio basics and techniques for smartphone photography. They will also learn how to edit and manipulate their images in Photoshop.

Teacher in charge – Mx Brigitte Chan

Y10: SCULPTED WORLDS (MINOR)

Students will learn the illustrative skills of character development and world creation by exploring the work of Shaun Tan and Tim Burton and creating a sculpted 3D altered book featuring their creature in its natural habitat.

Teacher in charge – Ms Kelly Hooker and Mrs Lerina Steenkamp

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