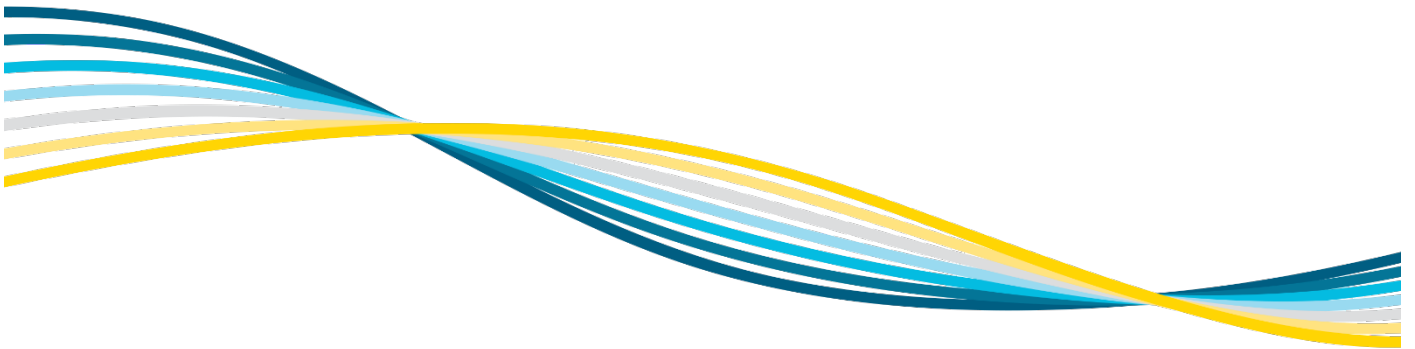


# Major & Minor Projects Guide 2022



**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 choose from dozens of project options to create a new Timetable for themselves 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.

For Year 9 and Year 10 students five different projects must be chosen. It is not possible to choose to do the same project twice.

At the end of the project block (The last week of Term 4) students will showcase their project work to the school community as part of the Colleges **Project Showcase Day**.

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 21<sup>st</sup> 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 2022 in term 2 via the web portal. This will follow discussions with their Atawhai leader.

Students will need to select projects as ranked preferences. Projects will then be allocated to students based on their ranked preference and what the College can logistically timetable.

Students will need to choose:

- 2 Majors and 3 Minors that are their first choice.
- Students are also asked to indicate 10 alternate projects including Majors and Minor in their alternate choices.

**If they are in Year 9 one of their minor projects must be computational thinking based project.** These projects are: Programable robots: Sphero (P0942), Mathematical Minecraft (P0948), Python programming for beginners (P0984) and Create and Learn code -Micro:bit (P0985).

## 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](mailto: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 Curwood 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**.

Projects codes for Year 9 begin 09

Project codes for Year 10 begin 10

Faculty	Year 9 - Major	Year 9 Minor	Year 10 - Major	Year 10 - Minor
<a href="#"><u>Business</u></a>	Sustainable Creative Design (P0901)	City Builder: Auckland 2040 (P0902)	Business Challenge (P1001)	World of Wall Street: Board game design (P1002)  Innovation Challenge (P1003)
<a href="#"><u>English</u></a>	Build a world: Foundations of Fantasy (P0911)	Right to Write: Write for you! (P0912)  Picture book Creator (P0913)  Seriously Sci-Fi (P0914)	Build a world: Foundations of Fantasy (P1011)  Beyond the page (P1012)	Right to Write: Write for you! (P1013)  Shakespeare (P1014)  Long Bay: Rough Guide to Travel (P1015)
<a href="#"><u>Global Studies</u></a>	Korean culture & K-pop (P0935)	Ngā taonga takaro: māori games and innovation (P0931)  Chinese Calligraphy and Wall Art (P0932)  Latin American Grooves (P0933)  Asian Cuisine (P0934)	Korean culture & K-pop (P1034)	Ngā taonga takaro: māori games and innovation (P1031)  Chinese Calligraphy and Wall Art (P1032)  Latin American Grooves (P1033)
<a href="#"><u>Health and PE</u></a>	The Amazing Race (P0921)	Mindfulness (P0923)  Escape Room: Long Bay Edition (P0925)  Top Coach! (P0926)	The Amazing Race (P1021)	Mindfulness (P1023)  Snack attack: Nutritional Health (P1024)  Hard Wired: Prosthetic Limb design (P1026)  Escape Room: Long Bay Edition (P1027)  Top Coach! (P1028)
<a href="#"><u>Mathematics</u></a>	Number crunch (P0941)  Code breaker: Crypto-math (P0947)	<b>Programable robots: Sphereos</b> (P0942)  <b>Mathematical Minecraft</b> (P0948)	Number crunch (P1041)  Code breaker: Crypto-math (P1046)	Theme park: Rollercoaster design (P1044)  Figures in History (P1045)

<a href="#"><u>Performing Arts</u></a>	High School “Mini” Musical (P0951)  School of Sound (P0952)	Director’s chair: Design a performance (P0953)  World of Dance (P0954)	High School “Mini” Musical (P1051)  School of Sound (P1052)	Director’s chair: Design a performance (P1053)  World of Dance (P1054)  Whose line is it anyway? (P1055)
<a href="#"><u>Science</u></a>	Rocket Lab (P0961)  Forensics: CSI Long Bay (P0962)	Freaky Food: Food Chemistry (P0964)  Eco Warrior: Superbugs (P0965)	Anatomy: Dissection Doctor (P1061)  Born to Race - Drag car design (P1065)	Earthquake Defender (P1066)  Organic Beauty (P1067)
<a href="#"><u>Social Science</u></a>	I Am Legend: Myth (P0971)  Lights, Camera, Action! (P0972)  Changemaker: Be the difference (P0975)  World racer (P0976)  Psychology (P0977)	Archaeology: Historical mystery (P0973)  Journalism (P0974)	World racer (P1071)  Lights, Camera, Action! Director’s Cut. (P1072)  Difficult memories: Art, Race and Identity in Aotearoa (1074)	Make a change: Sustainability (P1073)  The Inventors - Hall of Fame (P1076)
<a href="#"><u>Technology</u></a>	Sheet metal car (P0981)  Resin River (P0986)	<b>Python programming for beginners</b> (P0984)  <b>Create and Learn Code - Micro:bit</b> (P0985)  Culture of Innovation (P0982)	Resin River (P1084)  Digital Gift Design (P1081)	Culture of Innovation (P1082)
<a href="#"><u>Visual Arts</u></a>	Printmaking (0996)  Skateboard Art (P0997)		Skateboard Art (P1098)	Digital Photography (1093)  Photoshop (P1099)

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

# BUSINESS RELATED PROJECTS

Head of Faculty – Ms Sonia Collins

Ext 862

[scollins@lbc.school.nz](mailto:scollins@lbc.school.nz)

## Y9: CITY BUILDER: AUCKLAND 2040 (MINOR)

*20 years into the future (2040 – yes you are old now!)... Auckland's urban population has increased and spread to rural Auckland (known as urban sprawl). Auckland has been renamed and now has a population in excess of 10 million (megacity). You are a city planner. You have been asked to design a plan of your 'megacity' and present it to the mayor.*

**Teacher in charge – Ms Sonia Collins**

## Y9: SUSTAINABLE CREATIVE DESIGN (MAJOR)

*Sustainability: A renewable source of creating a living accommodation. Climate changes are coming – can you make a difference? The aim of this project is to discuss and research how “the new world” we are living in now will affect generations to follow. Students will understand what sustainability means and how they can apply it to creating a living accommodation.*

**Teacher in charge - Mrs Caren Leyland**

## Y10: BUSINESS CHALLENGE (MAJOR)

*Who wants to become an entrepreneur? Are you enterprising? Do you enjoy working with others? Students will be provided with opportunities to discover that enterprise and entrepreneurship exist in many forms in their own community. Students will design a product, create a business plan and take their product to market at a school market day/showcase day.*

**Teacher in charge – Ms Sonia Collins**

## Y10: INNOVATION CHALLENGE (MINOR)

*Are you interested in Science, Business or Technology? Are you keen to solve problems facing industry? This challenge uses a team project approach and students are presented with an industry challenge. It requires students to use investigative research and practical knowledge of science, technology and business to design and prototype a solution to the challenge.*

**Teacher in charge – Ms Dorinda Grobler**

## Y10: WORLD OF WALL STREET: BOARD GAME DESIGN (MINOR)

*Students will create a board game to teach people how to achieve financial sustainability. The board game will show the players that they will be rewarded for good deeds and that there will be consequences for making immoral or illegal decisions.*

**Teacher in charge – Ms Sonia Collins**



# ENGLISH RELATED PROJECTS

Head of Faculty - Ms Jennie Taylor Ext 867 [jtaylor@lbc.school.nz](mailto:jtaylor@lbc.school.nz)

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

*Students will make all or part of a role playing scenario with characters, maps and visual aids, descriptions of places, and an overall narrative arc. They will also develop the maps, settings (draw or build model), etc. to help bring their adventure story to life.*

**Teacher in charge – Mr Martin Brennan and Ms Elena Williams**

## Y9 & 10: RIGHT TO WRITE: WRITE FOR YOU! (MINOR)

*Students will create a variety of creative writing including slam poetry and a short drama script. These will be based on topics relevant to teenagers.*

**Teacher in charge – Ms Jennie Taylor and Ms Maria Hughes**

## Y9: PICTURE BOOK CREATOR (MINOR)

*Students will create a picture book aimed at early primary students. Students will learn aspects of educational theory, and develop an understanding of what types of words, concepts early readers are familiar with. This will inform their planning as they aim the text at a targeted audience.*

**Teacher in charge - Ms Jennie Taylor**

## Y9: SERIOUSLY SCI-FI (MINOR)

*Students will learn about the history of science fiction and look at a variety of texts (stories, films) within the sci-fi genre before creating their own writing piece in this style.*

**Teacher in charge – Mr Cameron Lacey**

## Y10: BEYOND THE PAGE. (MAJOR)

*Students will engage with a range of writing styles before writing their own poem or creative piece. Students will then develop their writing into another art form such as painting, dance, spoken word, or song.*

**Teacher in charge – Mrs Charmayne Armstrong**

## Y10: LONG BAY: ROUGH GUIDE TO TRAVEL (MINOR)

*Students will learn more about their local area with the intention of writing a travel piece suitable for online publication. Students will explore local sites, learn from local historians, and study the genre of travel writing.*

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

## Y10: SHAKESPEARE (MINOR)

*Students will closely study a selection of plays and scenes from Shakespeare's plays. Students will select a scene to be performed, either alone or in groups. Students can present their scene/soliloquy individually, or they can work in groups.*

**Teacher in charge - Mrs Stephanie Curtis and Ms Maria Hughes**

# GLOBAL STUDIES RELATED PROJECTS

Head of Department – Ms Laura Curwood Ext 879

[lcurwood@lbc.school.nz](mailto:lcurwood@lbc.school.nz)

## Y9: ASIAN CUISINE (MINOR)

*Come and learn to prepare a variety of scrumptious Asian dishes e.g. sushi, dumplings, and learn the language associated with the foods. Increase your language and cultural competencies, by learning to cook authentic dishes with teachers who have the knowledge and experience. Community members will also be invited in to share their knowledge and skills.*

**Teacher in charge – Ms Yao Lu**

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

*Come and enjoy the learn the art of Chinese calligraphy! You will design your own posters, signs, billboards and wall art for display around the school.*

**Teacher in charge – Mrs Xiaoman Shao**

## Y9 & Y10: KOREAN CULTURE & K-POP (MAJOR)

*Students will learn Korean language skills alongside learning about a variety of Korean cultural aspects including basic history, Korean modern life, and social issues in Korea*

*This project will also include a focus on K-pop (Korean pop music) with students learning a K-pop dance, having an opportunity to choreograph parts of it themselves (leadership opportunities to teach others) and studying popular Korean pop groups and their influence on society.*

**Teacher in charge – Ms Laura Curwood and Ms Victoria Yun**

## Y9 & Y10: LATIN AMERICAN GROOVES (MINOR)

*Students will be investigate the rich and diverse world of Latin American music and dance. Groups will learn and perform traditional Latin American songs/dances and create videos about Latin American musical culture.*

**Teacher in charge –Ms Nikita Van Niekerk**

## Y9 & Y10: NGĀ TAONGA TAKARO: MĀORI GAMES AND INNOVATION (MINOR)

*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, and consider how these skills and knowledge are useful today.*

**Teacher in charge – Whaea Olivia Schertenleib**

# HEALTH & PHYSICAL EDUCATION PROJECTS

Head of Faculty –Mrs Mo Gleeson Ext 813

[mgleeson@lbc.school.nz](mailto:mgleeson@lbc.school.nz)

## Y9 & Y10: MINDFULNESS (MINOR)

*This projects will teach students the art of mindfulness and allow students to take part in different mindfulness activities e.g zen doodles, adult colouring-in, meditation, yoga, and mindful games.*

**Teacher in charge – Ms Lucy Doran**

## Y9 & Y10: ESCAPE ROOM: LONG BAY EDITION (MINOR)

*Students will be given a range of problem solving activities and challenges they must try and solve. Students will need to demonstrate problem solving skills, assertiveness, communication and other interpersonal skills.*

**Teacher in charge – Mr Mark Carroll and Ms Emma Watson**

## Y9 & 10: TOP COACH! (MINOR)

*Ever thought about a career in events management or sport? In this project students will learn about what leadership looks like in the sporting arena, and they will have the opportunity to hear from experts in their field and learn from their experiences. They will be given the opportunity to develop their own skills and then lead a Community of Learning Primary school event with each of the five schools bringing up to 200 students if all Primary schools can attend. We will invite sports leaders from the wider community to attend and assist the students.*

**Teacher in charge – Mr Paul Field and Mr Paul O’Leary**

## Y9 & Y10: THE AMAZING RACE (MAJOR)

*Students will participate in a range of physically and mentally challenging activities. They will work in teams to accept challenges, achieve goals, overcome problems and develop their interpersonal skills.*

**Teacher in charge – Mrs Lisa Lehan and Mr Kevin Parslow**

## Y10: HARD WIRED: PROSTHETIC LIMB DESIGN (MINOR)

*Have you ever looked at a para athlete and wondered how their artificial limb works? Students will develop their thinking skills to work through a design process to produce their own prosthetic limb. The aim being that students will understand the requirements of the limb (Bones, joints and basic muscles), but will also include moving parts that allow the limb to move and function at a basic level.*

**Teacher in charge – Mrs Mo Gleeson**

## Y10: SNACK ATTACK: NUTRITIONAL HEALTH (MINOR)

*Have you ever wondered what is in the protein shake you have tried or in the muesli bar that supposedly ticks all the healthy boxes? This project gives students the opportunity to learn more about what is a ‘healthy’ diet and what does our body need to fuel it properly. By the end the project students will have researched, designed and created their own snack that shows what they have learnt about nutrition.*

**Teacher in charge – Mr Kevin Parslow and Mrs Lisa Lehan**

# MATHEMATICS RELATED PROJECTS

Head of Faculty –Mr Matt Gleeson

Ext 873

[mcgleeson@lbc.school.nz](mailto:mcgleeson@lbc.school.nz)

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

*Become a cryptologist, and learn the secrets of codes and ciphers. Learn methods of problem solving. Explore geometry, algebra and trigonometry through guided discovery. Make your own unbreakable code.*

**Teacher in charge –Mr Tim Spratt**

## Y9 & Y10: NUMBER CRUNCH (MAJOR)

*Extreme Maths and Extreme Maths challenges. Push your Math to its limits. Are you ready for advanced algebra?*

**Teacher in charge – Mr Matt Gleeson**

## Y9: MATHEMATICAL MINECRAFT (MINOR, COMPUTATIONAL THINKING)

*Students will immerse themselves in mathematical concepts utilising Minecraft as a tool to understand and problem solve.*

**Teacher in charge – Mr Matt Gleeson**

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

*Students will begin with mini projects to teach essential programming skills. Mini projects will include rescue missions, bridge tester, creating shapes, Pictionary etc and Students can also choose the activities they do. Students will program Sphero to navigate an original maze built by them. This challenge will require students to gather data about the best route through the maze and figure out how to build a program so that Sphero can successfully navigate through the mayhem. All activities will involve testing.*

**Teacher in charge – Mr Marius Sandu**

## Y10: FIGURES IN HISTORY (MINOR)

*From the bones of early man to the farms of ancient Greece, the pyramids of Egypt to the Knights of Persia. The role of maths in human history is as audacious as it is devastating. Come and see!*

**Teacher in charge – Mr Matt Gleeson**

## Y10: THEME PARK: ROLLERCOASTER DESIGN (MINOR)

*Explore mathematical concepts through design and construction of a paper rollercoaster.*

**Teacher in charge – Ms Sarah Meyer**

# PERFORMING ARTS RELATED PROJECTS

Head of Faculty –Ms Dannielle Savage

Ext 894

[dsavage@lbc.school.nz](mailto:dsavage@lbc.school.nz)

## Y9 & Y10: DIRECTOR’S CHAIR: DESIGN A PERFORMANCE (MINOR)

*Have you ever wanted to create your own play? Sometimes we feel we have so much to express and that our ideas aren’t being valued. Here is your chance to combine your fantastic ideas with those of other equally amazing students to come up with a story that has not been told before. It is unique.*

**Teacher in charge – Ms Dannielle Savage**

## Y9 & Y10: 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 & Y10: SCHOOL OF SOUND (MAJOR)

*Taking part in this project will give you the opportunity to learn, rehearse, and perform music in a large ensemble. You don’t need to be able to play an instrument to be a part of this project, but you do need to be willing to try something new and put in the practise time to be successful. A range of exciting, fun, (and sometimes loud), percussion instruments is available for those with no instrumental experience. The pieces we choose to play will contain parts with a range of difficulty levels to ensure each student taking part will get the most out of the experience.*

**Teacher in charge – Ms Rhianna Maker**

## Y10: WHOSE LINE IS IT ANYWAY? (MINOR)

*Do you like performing, or want to learn how to? Do you like working with other people to Make Stuff Up? Have you ever seen “Whose line is it anyway?” Did you wonder how they were able to make those scenes up so quickly? Come along and learn how to play many simple improvisational games, as well as lots of exercises and activities to get your creativity flowing!*

**Teacher in charge –Ms Dannielle Savage**

## Y9 & Y10: WORLD OF DANCE (MINOR)

*Do you like performing, or want to learn how to? Do you like working with other people? Do you want to see what the world has to offer in terms of dance? Come along and learn a variety of dances from around the world, as well as lots of exercises and activities to get your creativity flowing!*

**Teacher in charge – Ms Kiaya Lupi**

# SCIENCE RELATED PROJECTS

Head of Faculty – Mrs Samantha Lewis

Ext 871

[slewis@lbc.school.nz](mailto:slewis@lbc.school.nz)

## Y9: ECO WARRIOR: SUPERBUGS (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 surface spray to use at home.*

**Teacher in charge – Mrs Samantha Lewis**

## 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 – Mrs Ashley Davies**

## 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**

## 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 – Mrs Samantha Lewis**

## Y10: ANATOMY: DISSECTION DOCTOR (MAJOR)

*Leonardo da Vinci was an extraordinary artist but did you know he was also a scientist? He spent much of his time studying the workings of the body, carrying out dissections and drawing the organs. In this project, you will learn dissections skills to dissect a range of animal organs. During your dissections, you will add to and produce a detailed digital / sketch book of your dissection work and find out about how the organs work and what can go wrong with them.*

**Teacher in charge – Mrs Samantha Lewis**

## Y10: BORN TO RACE: DRAG CAR DESIGN (MAJOR)

*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 – Dr Shreyoshi Ghosh**

## Y10: EARTHQUAKE DEFENDER (MINOR)

*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.*

**Teacher in charge: 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

[lwing@lbc.school.nz](mailto:lwing@lbc.school.nz)

### Y9: ARCHAEOLOGY: HISTORICAL MYSTERY (MINOR)

*Students will study early civilisations and basic archaeological study and practice. They will examine unsolved mysteries from humanities past and present their findings through curated artefacts.*

**Teacher in charge – Mr Terry Chee**

### Y9: CHANGEMAKER: BE THE DIFFERENCE (MAJOR)

*What do you care about? Where can you make change in the world? This project is about learning how to effectively make a difference to social issues through social action. Students will have the chance to select an issue they are passionate about and plan and carry out an action to directly help that issue.*

**Teacher in charge – Miss Lauren Wing**

### Y9: I AM LEGEND: MYTH (MAJOR)

*Students will be introduced to the study of myth. Gods and goddesses, Demigods, heroes, heroines and monsters. They will study creation, nature and charter myths.*

**Teacher in charge – Mr Dean Thompson**

### Y9: JOURNALISM (MINOR)

*Students will plan, design and produce a class magazine. Producing both an online version and a hard copy version. They will take on the role of editor, writer, photographer, 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: PSYCHOLOGY (MAJOR)

*The project will consist of students learning what Psychology is all about and getting the opportunity to design and conduct an experiment and investigation over the course of 4 weeks.*

**Teacher in charge – Mr Eric Wheeler**



## Y9/10: 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 you own leg of The Amazing Race.*

**Teacher in charge – Mrs Justine McIntosh**

## Y10: DIFFICULT MEMORIES – ART, RACE AND IDENTITY IN AOTEAROA’ - ART HISTORY PROJECT (MAJOR)

*Students will examine through the lens of art, how attitudes in NZ around race and identity have changed over time.*

**Teacher in charge – Miss Tian Zhang**

## Y10: LIGHTS, CAMERA, ACTION!: DIRECTOR’S CUT (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: MAKE A CHANGE: SUSTAINABILITY (MINOR)

*Students will choose a sustainable goal, research it, connect globally with others and then produce a campaign in support of Global Change.*

**Teacher in charge – Mr Martyn Longstaff**

## Y10: THE INVENTORS - HALL OF FAME (MINOR)

*Students will explore the most significant, ground breaking and important human inventions of all time. We will span all of human history from sharp rocks all the way through to the internet and beyond.*

**Teacher in charge – Ms Claire Moorhead**

# TECHNOLOGY RELATED PROJECTS

Head of Faculty – Ms Jana Durdevic

Ext 829

[jdurdevic@lbc.school.nz](mailto:jdurdevic@lbc.school.nz)

## Y9/10: CULTURE OF INNOVATION – (MINOR)

*Students will investigate New Zealand's history and culture around innovation. Simple manufacturing processes will be tested and reviewed.*

**Teacher in charge – Mr Allen French and 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.*

**Teacher in charge – Mr Jeff Evans and Mrs Robyn Hunn**

## Y9: CREATE AND LEARN CODE -MICRO:BIT: (MINOR, COMPUTATIONAL THINKING)

*Students will learn the basics of programming - algorithms, variables, inputs, outputs, conditionals and iteration by completing various mini projects, e.g. simple projects to learn about the importance of being active to help prevent heart disease or building a smart garden.*

**Teacher in charge – Mrs Michelle Gallagher and Mr Tony Bailey**

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

*A project designed for students who have never completed any programming based courses before. They will learn basic syntax of Python and they will plan, develop, test and debug programs for a specific task.*

**Teacher in charge – Mrs Michelle Gallagher and Mr Tony Bailey**

## Y9: SHEET METAL CAR (MAJOR)

*This project that involves using basic engineering techniques to create a model sheet metal car. These techniques can be used in later life for car maintenance. Students will work with sheet metal to learn cutting, folding, and joining processes to construct a 3D vehicle. Elements are designed and customised.*

**Teacher in charge – Mr Matt Overington and Mr Nicholas Booth**

## Y10: DIGITAL GIFT DESIGN (MAJOR)

*Students will learn Computer Aided Design to generate a design idea. Students will then use laser cutter technology to manufacture this product.*

**Teacher in charge – Ms Jana Durdevic and Ms Chloe McIsaac**

# VISUAL ARTS RELATED PROJECTS

Head of Faculty – Mrs Liese Strong

Ext 893

[lstrong@lbc.school.nz](mailto:lstrong@lbc.school.nz)

## 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 Nobio**

## 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 – Mrs Liese Strong**

## 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: PHOTOSHOP (MINOR)

*Students will learn Photoshop basics and how to use Photoshop to recreate famous artworks. They will reimagine these by fusing historic artworks with modern every-day objects to create fun and amusing artworks and animated gifs.*

**Teacher in charge – Mrs Nancy Xie**

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