



WHANGĀREI BOYS' HIGH SCHOOL

DEVELOPING BOYS INTO FINE MEN

CURRICULUM GUIDE

YEAR 10



2021

wbhs.school.nz

KEY DATES

2020

Wed	29	July	Subject Selection Evening 5:30pm - 7:30pm For students in Years 9 - 12 selecting 2021 subjects Senior staff, Head of Faculty staff, and Deans will be available to discuss subject selection with students and parents/cargivers
Thurs	30	July	Year 8 Open Evening 4:30pm - 7:00pm For students and parents/cargivers Tours will commence at 4:30pm, and the formal presentation will be from 6:00pm - 7:00pm Subject displays will be in the School Hall
Wed	5	Aug	Final day for online subject selection via parent portal - for Years 9 - 12 students selecting 2021 subjects
Wed - Thurs	19 - 20	Aug	Year 8 Enrolment Interviews in the School Hall - bookings are made through the School Office

2021

Tue - Thurs	19 - 21	Jan	Years 9 – 13 Deans available for subject consultation for all returning students and new enrolments
Tue	26	Jan	Years 9 & 13 students attend school Powhiri at 9.00am Years 10 – 13 Deans available at 11.00am for course changes
Mon	1	Feb	All students attend school

USEFUL WEBSITES

Career Central – www.careercentral.school.nz

Vocational Pathways – www.youthguarantee.net.nz

Careers New Zealand – www.careers.govt.nz

Occupation Outlook app – www.occupationoutlook.mbie.govt.nz

Just the Job – www.justthejob.co.nz

Student loans and allowances – www.studylink.govt.nz

Fees Free, Tertiary Education Committee – www.feesfree.govt.nz



YEAR 10 DEANS' LETTER



Year 10 students study the compulsory subjects of English, Mathematics, Science, Social Studies, Health, and Physical Education.

There will be one Supported Learning class with smaller numbers and consistent teaching across the compulsory subjects.

Compulsory Subjects

English
Mathematics
Science
Social Studies
Health
Physical Education

OPTION SUBJECTS - Choose THREE

Agriculture/Horticulture
Art
Classical Studies
Design & Visual Communication
Digital Technology
Drama
Electronics
Japanese
Junior Māori Arts
Languages via FarNet (e.g. Spanish)
Materials Technology
Money Wise
Music
Outdoor Education
Product Design
Sports Specific Training
Te Reo Rangatira
The World of Business

In normal circumstances all options must be followed for the full year course; changing option classes is not practical and is discouraged. Students are encouraged to take a broad range of subjects.

During subject selection guidance is available from Whanau Teachers, Deans, subject teachers, and Careers staff at Whangarei Boys' High School.

YEAR 10 DEANS



ACADEMIC COURSES 2021

FACULTY	YEAR 9		YEAR 10		YEAR 11 - LEVEL 1		YEAR 12 - LEVEL 2		YEAR 13 - LEVEL 3	
		* Art * Drama * Music	* Art * Drama * Music	* Art * Drama * Music	* Art * Drama * Music	Art Digital Art Drama Music	Art Design Art Painting Photography Drama Music	Art Design + Art Painting + Photography + Drama + Music +	Health + Physical Education + Physical Well-being Outdoor Education Personal & Social Development	Health + Physical Education + Physical Well-being Outdoor Education Personal & Social Development
Health & Physical Education	✓ Health ✓ Physical Education * Outdoor Education * Sports Specific Training	✓ Health ✓ Physical Education * Outdoor Education * Sports Specific Training	✓ Health ✓ Physical Education * Outdoor Education * Sports Specific Training	✓ Health ✓ Physical Education * Outdoor Education * Sports Specific Training	Health Physical Education Physical Well-being Outdoor Education Personal & Social Development	Health Physical Education Physical Well-being Outdoor Education Personal & Social Development	Health + Physical Education + Physical Well-being Outdoor Education Personal & Social Development	English + English Language & Communication	English + English Language & Communication	English + English Language & Communication
Languages	✓ English * Japanese * Languages via FarNet ✓ Te Reo Māori * Junior Maori Arts * Te Reo Rangatira ESOL	✓ English * Japanese * Languages via FarNet ✓ Te Reo Māori * Junior Maori Arts * Te Reo Rangatira ESOL	✓ English * Japanese * Languages via FarNet ✓ Te Reo Māori * Junior Maori Arts * Te Reo Rangatira ESOL	✓ English * Japanese * Languages via FarNet ✓ Te Reo Māori * Junior Maori Arts * Te Reo Rangatira ESOL	✓ English English Literacy Japanese Languages via FarNet Senior Māori Arts Te Reo Rangatira ESOL	✓ English English Language & Communication Japanese Languages via FarNet Senior Māori Arts Te Reo Rangatira ESOL	English + English Language & Communication Japanese + Languages via FarNet Senior Māori Arts Te Reo Rangatira + ESOL	English + English Language & Communication	English + English Language & Communication	English + English Language & Communication
Mathematics	✓ Mathematics	✓ Mathematics	✓ Mathematics	✓ Mathematics	✓ Mathematics with Externals Mathematics with Internals Mathematics Numeracy	✓ Mathematics with Externals Mathematics with Internals Mathematics Numeracy	Calculus + Mathematics with Internals + Statistics +	Mathematics with Externals Mathematics with Internals	Mathematics with Externals Mathematics with Internals	Calculus + Mathematics with Internals + Statistics +
Sciences	* Agriculture/Horticulture ✓ Science	* Agriculture/Horticulture ✓ Science	* Agriculture/Horticulture ✓ Science	* Agriculture/Horticulture ✓ Science	Agriculture/Horticulture Science Science	Agriculture/Horticulture Science Science	Agriculture/Horticulture (FarNet) + Science + Biology + Chemistry + Physics + Forestry	Agriculture/Horticulture Science Biology Chemistry Physics Science Bridging Forestry Primary Industries	Agriculture/Horticulture Science Biology Chemistry Physics Science Bridging Forestry Primary Industries	Agriculture/Horticulture (FarNet) + Science + Biology + Chemistry + Physics + Forestry
Social Sciences	* Start Your Own Business * The World of Money	* Start Your Own Business * The World of Money	* Start Your Own Business * The World of Money	* The World of Business * Money Wise	Accounting Business Studies Economics	Accounting Business Studies Economics	Accounting + Business Studies + Economics + Personal Financial Management Sales & Customer Service	Accounting Business Studies Economics Personal Financial Management Sales & Customer Service	Accounting + Business Studies + Economics + Personal Financial Management Sales & Customer Service	Accounting + Business Studies + Economics + Personal Financial Management Sales & Customer Service
Technology	* Design & Visual Communication * Digital Technology ✓ Materials Technology	* Design & Visual Communication * Digital Technology ✓ Materials Technology	* Design & Visual Communication * Digital Technology ✓ Materials Technology	* Design & Visual Communication * Digital Technology * Electronics * Product Design * Materials Technology	Design & Visual Communication Digital Technology Digital Literacy Electronic Products Product Design Advanced Engineering Woodwork Engineering Trade Academy	Design & Visual Communication Digital Technology Digital Literacy Electronic Products Product Design Advanced Engineering Woodwork Engineering Trade Academy	Design & Visual Communication + Digital Technology + Electronic Products Product Design Pre-trade Engineering & Automotive Pre-trade Woodwork	Design & Visual Communication Digital Technology Electronic Products Product Design Pre-trade Engineering & Automotive Pre-trade Woodwork	Design & Visual Communication + Digital Technology + Electronic Products Product Design Pre-trade Engineering & Automotive Pre-trade Woodwork	Design & Visual Communication + Digital Technology + Electronic Products Product Design Pre-trade Engineering & Automotive Pre-trade Woodwork

POINTS TO NOTE

YEAR 9

Students study English, Science, Social Studies, Mathematics, Physical Education, Health and Materials Technology for the full year. Te Reo Māori and a choice of either Art, Drama or Music, are studied for half a year.

Students also select two option subjects* which are studied for half a year.

YEAR 10

Students study six compulsory subjects and three option subjects*. Please select a spare subject.

YEAR 11

Mathematics and English are compulsory. Students study six subjects all year. Please select a spare subject.

YEAR 12

Students select six subjects and a spare subject. It is important to identify subjects that lead to the trades and those that prepare students for University Entrance. It is possible to repeat Level 1.

YEAR 13

Students select five subjects and a spare. They may also select from Years 11 and 12 subjects.

SUPPORTED LEARNING

Extra learning support in a safe environment for those who do not cope with the structure of secondary school.

These subjects are compulsory * Option subjects + Approved subjects for University Entrance
FarNet is learning via the internet and ZOOM. It is similar to Correspondence but with more tutor and class interaction. Students also receive one-on-one assistance from a trained teacher.



ADDITIONAL PATHWAYS OF LEARNING

FARNET

FarNet is available to domestic and international students. Students study via a mix of the internet and Google Hangout lessons with a distance tutor. FarNet is available where students have a clash of two timetabled subjects and both compliment their learning pathway. FarNet may also be available where Whangarei Boys' High School is not offering a subject that interests the student eg a Language.

Once a week the boys converse online with their tutor and students in other schools. Other learning activities are accessed online during the rest of the timetabled classes.

TE KURA (THE CORRESPONDENCE SCHOOL)

This is offered to students online who have New Zealand Citizenship and are wanting a subject where Whangarei Boys' High School does not have a class. Boys work in a supervised classroom and have access to one-on-one teacher assistance.

Te Kura and **FarNet** students need to meet pre-requisites and must be self-directed.

Contact persons: Mrs Miller & Deans

GATEWAY

This is structured workplace learning, mostly for students in Years 12 and 13. They experience an unpaid placement in a work place which interests them for one day each week for six to ten weeks. The work placement may occur during the school holidays. Boys should express their interest in a Gateway placement when they select their subjects.

Examples are:

- Trades Engineering
- Retail
- Electrical
- Plumbing
- Sport & Recreation
- Building
- Computing
- Automotive

Contact persons: Mrs Draper & Deans

TRADE ACADEMIES

Whangarei Boys' High School has opportunities in the Trades Academies available in Engineering, Cookery, Automotive, Civil Construction, Design, and Primary Industries.

The fulltime L1 or L2 Engineering Trade Academy (ENAC) is delivered onsite at Whangarei Boys' High School. Boys are enrolled in English and Mathematics with the remainder of the time designing and building Engineering and Automotive projects.

The other academies are one or two days delivered at NorthTec, The Design School or Wilson Trade Academy (new for 2021).

To be considered for a place in a Trades Academy boys need to have a conversation with one of their Deans or a Trades Academy Coordinator and select Pre-trade Engineering & Automotive, and Business Studies or Personal Financial Management and Mathematics, English and Science.

Students accepted into the **Primary Industries Trade Academy** study aspects of the industry as a whole in class but also have many opportunities for active learning in areas such as Pest Control, Fencing, Chainsaw Use & Safety, Work Safe & First Aid, Riparian Planting, and Pollution Control. To be considered for a place in the Primary Industries Academy boys must select the Primary Industry subject and show a genuine interest in this industry.

Contact persons: Mrs P. O'Leary, Miss D. Thompson, & Deans

VOCATIONAL PATHWAYS

Creative, Cultural & Recreational Industries

- Actor
- Advertising Executive
- Animator
- Artist
- Copywriter
- Fashion Designer
- Graphic Designer
- Musician
- Photographer
- Publisher
- Stage/Set Designer
- Web Designer

Health, Community & Social Industries

- Ambulance Officer
- Chiropractor
- Counsellor
- Dentist
- Doctor
- Educator
- Nurse
- Osteopath
- Pharmacist
- Physiotherapist
- Surgeon
- Social Worker

Services Industries

- Aviation
- Bar Manager
- Baker
- Chef
- Customs Officer
- Firefighter
- Hairdresser
- Hospitality Worker
- Cleaner
- Police Officer
- Retail Salesperson
- Hotel/Restaurant Manager
- Travel Agent

Primary Industries

- Animal Attendant
- Beekeeping
- Dairy Farmer
- Ecologist
- Forestry
- Fishery Officer
- Horticultural Worker
- Landscape Gardener
- Marine Biologist
- Microbiologist
- Winemaker
- Veterinarian

Construction & Infrastructure Industries

- Architect
- Builder
- Carpenter
- Driller
- Electrician
- Glazier
- Mining
- Planner
- Plumber
- Roading
- Roofing
- Surveyor

Manufacturing, Engineering, Logistics & Technology Industries

- Automotive
- Boat Builder
- CAD Operator
- Designer
- Truck Driver
- Engineer
- Fabrication
- Machine Operator
- Photographer
- Fork-lift Operator
- Programmer
- Technician
- Telecommunications
- Website Developer



Note: English and Mathematics are compulsory until NCEA Level 1.
It is important to include English, Mathematics and Science for most career options.

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|-------------------------|-----------------|----------------------|----------------------------|
| • Drama | • Media Studies | • DVC | • Maths |
| • Dance | • Art Design | • Science | • Biology |
| • Māori Performing Arts | • Art | • Digital Technology | • Outdoor Education |
| • Music | • Photography | • Physical Education | • Sales & Customer Service |

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|-------------|-------------|------------------|--------------|
| • Science | • Physics | • Social Studies | • Psychology |
| • Health | • Biology | • History | • Statistics |
| • Chemistry | • Language | • Psychology | |
| • Maths | • Geography | • Economics | |

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|----------------------------|--------------|----------------------|---------------|
| • Business Studies | • Accounting | • Languages | • Hospitality |
| • Economics | • Geography | • Digital Technology | • Psychology |
| • Sales & Customer Service | • Tourism | • Science | |

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|--------------------------------|--------------|----------------------|
| • Agriculture/
Horticulture | • Chemistry | • Primary Industries |
| • Economics | • Accounting | • Biology |
| • Science | • Forestry | • Business Studies |

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|-------------|--------------|----------------------------|-------------------------|
| • Woodwork | • Automotive | • Geography | • Language Rich Subject |
| • DVC | • Science | • Sales & Customer Service | • Calculus |
| • Metalwork | • Physics | • Digital Technology | |
| • Maths | • Chemistry | | |

- | | | | |
|-------------|----------------------|-------------------------|---------------|
| • Maths | • Physics | • Language Rich Subject | • Woodwork |
| • Sciences | • Chemistry | • Geography | • Calculus |
| • Metalwork | • Digital Technology | • Automotive | • Electronics |



ARTS FACULTY

ART (10ART)

This course is designed to extend students in the area of visual arts, giving a strong foundation in drawing, painting, printmaking and design. A range of exercises will encourage students to explore personal creativity and develop a wide range of skills.

Duration: Full year

Entry requirement: Year 9 Art or HoD discretion

Cost: Take home component \$10

Contact person: Mrs V. Luders

DRAMA (10DRA)

This course continues working on student's co-operative learning skills through group tasks. Students will become familiar with drama techniques, elements and conventions. They will be given the opportunity to show their understanding of these drama aspects through performance assessments. Students will perform scenes from plays, learn about a variety of theatre styles and have the opportunity to devise their own drama within a group.

Duration: Full year

Entry requirement: Willingness to perform in front of peers. Successful participation in year 9 Drama is preferred.

Cost: There will be further charges necessary to help pay for viewing live performances throughout the year

Contact person: Ms F. Churcher

MUSIC (10MUS)

This is an option subject that develops practical and theory components of music making. The course is based around mastery of instrumental skills on guitar, drums and/or keyboard. Students are strongly encouraged to take advantage of the free itinerant music teaching programme to learn instruments such as trumpet, saxophone, keyboard, guitar, drums, flute and clarinet. Students who show advanced performance skills will be encouraged to attempt Level 1 performance achievement standards 91090 and 91091. This course leads to NCEA Level 1 Music.

Duration: Full year

Cost: A contribution towards field trips may be required

Contact person: Ms V. Hill

HEALTH & PHYSICAL EDUCATION FACULTY

HEALTH (10HLT)

This course assists students:

- Develop the knowledge, understandings, skills and attitudes needed to maintain and enhance personal health and physical development
- Develop understandings, skills and attitudes that enhance interactions and relationships with other people
- Participate in creating healthy communities and environments by taking responsible and critical action

Duration: Full year

Contact person: Mrs D. Cooper

OUTDOOR EDUCATION (10OED)

This course involves a variety of outdoor pursuits, with an emphasis on developing personal growth and technical skills.

Topics covered may include:

- Adventure based learning
- Teamwork
- Problem solving
- Navigation
- Rock climbing
- Risk management
- Orienteering
- First aid

Duration: Full year

Contact persons: Mr S. Huurnink & Mr J. Thomas

PHYSICAL EDUCATION (10PE)

This course builds on the learning experiences of the Year 9 course with continued emphasis on participation in a range of physical activities aimed at Level V of the Health and Physical Education curriculum.

Duration: Full year

Contact person: Mr J. Thomas

SPORTS SPECIFIC TRAINING (10SPT)

This course looks to develop young sportsmen by having a better understanding of how to be fitter, faster and stronger.

This course will cover:

- Fitness testing
- Speed training
- Introduction to weight training
- Analysis with ipad apps
- Sport coaching
- Sports nutrition
- Sports psychology
- Principles of training

Duration: Full year

Contact persons: Mr J. Thomas

LANGUAGES FACULTY

ENGLISH (10ENG)

The English curriculum is based on the three language strands - oral language (listening and speaking), written language (reading and writing) and visual language (viewing and presenting). These strands are interwoven into the units studied.

At Year 10 level, units may focus more heavily on one strand than others. Trial assessments are carried out in preparation for Year 11.

Duration: Full year

Contact persons: Mrs K. Trimmer & Mr M. Nogher

ESOL (10ESL)

This is a basic English language course which covers reading, writing, listening, speaking and grammar skills. This course is designed to give students English communication skills and to increase their confidence in using English in everyday situations as well as in the classroom setting to access the New Zealand curriculum.

Duration: Full year

Entry requirement: Pre-entry test

Contact person: Mr R. Atkinson

JAPANESE (10JAP)

This course gives the student an opportunity to increase their language skills and learn more about the culture of Japan.

Topics covered are:

- Mastery of the Katakana syllabary and further development of the Kanji script
- Classroom language
- Family and occupations
- Spare time activities
- Weather and seasons
- Descriptions

Duration: Full year

Contact person: Mrs D. Williamson

JUNIOR MAORI ARTS (10JMA)

This course provides a cross curricular theme of Maori Drama, Performance, Visual Arts and Tikanga and serves as a strong starting point for NCEA achievement. Junior Maori Arts also creates a pathway to senior Maori Visual and Performing Arts and complements Te Reo Rangatira.

Duration: Half year

Contact persons: Mr W. Cooper & Mr K. Manuel



LANGUAGES via FarNet (10LANf)

These courses cater for students who wish to study languages that are not currently available in WBHS, or who wish to gain qualifications in their first or second language. Dependent on their ability students may study an introductory programme or complete internal and external NCEA assessments. FarNet offers a range of courses in French, German, Korean, Mandarin, Samoan, Spanish and Tongan. Please contact me if you require information about other languages you might wish to study.

Boys study in a supervised class with access to the required learning resources.

Duration: Full year

Cost: \$30 to be paid at the start of term 1 for access to Education Perfect as an online language resource used by FarNet tutors.

Contact person: Mrs D. Miller

TE REO RANGATIRA (10TRR)

This course is for students with prior language learning. It builds and extends on existing skills.

Topics covered include:

- Ngā mihi (Speeches)
- Nga pūrongo (Reports)
- Nga kai Māori (Māori food)
- Nga kēmu pai ki ahau (Sports I like)
- Tāngata rongonui (A well-known personality)
- Tōku ao (My world)

Duration: Full year

Entry requirement: Year 9 Māori or HoD approval

Contact person: Mr W. Cooper

MATHEMATICS FACULTY

MATHEMATICS (10MAT)

Year 10 Mathematics explores and develops the ideas and content from Levels 4, 5 and 6 of the New Zealand Mathematics Curriculum. Learning will occur within a variety of meaningful contexts to help develop the ability and inclination to use mathematics and statistics to solve problems. Results from this course will help to determine class placement in Year 11.

The topics taught in Year 10 are:

- Number
- Angle Geometry
- Pythagoras and Trigonometry
- Algebra
- Statistics
- Probability
- Tables, Patterns and Graphs
- Measurement

Duration: Full year

Equipment recommended: Casio 9750 Graphic calculator or an FX82 Calculator

Contact person: Mr A. Kitson

SCIENCE FACULTY

AGRICULTURE/ HORTICULTURE (10AHS)

Research and recording skills will be developed through project work and recording the results of practical work. An agricultural unit has been included in the course to stimulate interest in farming and other land-based industries.

The course structure will be:

- Garden planning
- Plant husbandry
- Types & uses of plants
- Soils - plant propagation
- Plant structure
- Agriculture
- Environment
- Pests and diseases

Duration: Full year

Entry requirement: Open entry

Contact person: Mr D. Jennings

SCIENCE (10SCI)

This course continues to develop the skills and processes that have been introduced at Year 9 through topics from the following strands:

- The Living World
- The Material World
- The Physical World
- Planet Earth and Beyond

Duration: Full year

Cost: Kiwi Science Competition approx. \$15 (optional). There may be a cost for resources.

Contact person: Mr S. Kumar

SOCIAL SCIENCE FACULTY

CLASSICAL STUDIES (10CLS)

Why take Classical Studies? It introduces so much of what we have inherited from the Greeks and Romans, such as law, philosophy, language, literature, history, drama, sports, politics, art, oratory, medicine, architecture, sciences, and astronomy.

Some of the following topics will be covered:

- Minoan Society
- The Spartans
- The Olympics
- Mycenaean Society
- The Roman Army
- The Trojan War
- Roman Social Life
- Athens
- Technology
- Aegean Geography
- Religion
- The Aegean World
- Jason and the Argonauts
- Pompeii

Duration: Full year

Entry requirement: Year 9 Classics or HoD discretion

Contact person: Mr R. Burrows

MONEY WISE (10MNY)

This course establishes essential financial capability skills and will help plot a smooth financial path in life ahead.

In this subject students will cover:

- The history of money
- Generating income and paying taxes
- Savings and investment
- Credit and debt

Duration: Full year

Contact person: Ms K. Price

SOCIAL STUDIES (10SOS)

Social Studies helps students understand their world and gives them the skills and knowledge to play their part in society as active, socially conscious citizens. Skills will be developed through inquiry, values exploration and decision-making activities. Current events are monitored throughout the year.

Five major units of learning are covered:

- Sustainability
- Game changers
- Battlefields
- Human Rights and social action
- Ti Tiriti o Waitangi - Responses

Includes a field trip to Waitangi Treaty Grounds.

Duration: Full year

Contact person: Mr J. Warren

THE WORLD OF BUSINESS (10BUS)

This course promises to be an exciting year where students learn how the economy works and critical decisions firms make in production. Students set up their own businesses and develop their own entrepreneurial capability.

Some key content areas are:

- The circular flow model
- Producers and production processes
- Enterprise studies
- Innovation and entrepreneurship

Duration: Full year

Contact person: Ms K. Price



SUPPORTED LEARNING FACULTY

SUPPORTED LEARNING

A Supported Learning class operates in Year 10 for boys who have learning challenges or who do not cope well with the structure of secondary school learning.

This class gives students who need extra help to cope with the secondary school curriculum, the maximum opportunity to find success.

Students receive extra learning support and develop positive relationships with their teacher in a stable, secure learning environment.

Contact person: Ms H. Ferguson

TECHNOLOGY FACULTY

DESIGN & VISUAL COMMUNICATION (10DVC)

This course of study equips students to use a design process to create a unique solution. The Year 10 programme builds on the core skills learned in Year 9 and provides the essential skills and learning for success at Year 11. DVC seeks to enable students to communicate ideas clearly and precisely through:

- Freehand drawing and rendering techniques
- Develop in students an aesthetic awareness

At Year 10 the programme centres on:

- How to develop and refine design ideas to a final outcome
- Multi-view drawing and sectioning
- Modelling
- Perspective illustration
- CAD programmes; Google Sketchup and 2D Design

Duration: Full year

Equipment required: Set squares, compasses, pencils etc, for use at home and school, and an A4 visual diary

Contact person: Mr P. Yeoman

DIGITAL TECHNOLOGY (10DGT)

In this course the emphasis is on developing a broad range of skills in communicating information and ideas, and in accessing, planning, managing, and processing information. Successful completion of the course is a pre-requisite for entry into Level 1 Digital Technology in Year 11. All other applicants will be tested for entry to Year 11.

- Word processing - letters, reports and articles - Word
- Spreadsheets - budgeting and graphical presentation of data - Excel, formula
- Desktop publishing - posters, flyers, newsletter design - Publisher
- Graphics - photo editing, visual effects – Adobe Photoshop, GIMP
- Game programming - Scratch
- Web design - basic web page design – Adobe Dreamweaver, Notepad ++
- Presentations - digital presentations – PowerPoint
- Planning and creating a computer program - Python programming

Duration: Full year

Contact person: Mr J. Clark

ELECTRONICS (10ELE)

This is an introductory course for students interested in Electronics and Design.

The course is based around the study of the component theory, the investigation of circuit designs, and the building of practical electronic products.

Students will be taught:

- Soldering techniques
- PCB production techniques
- Component recognition
- The theory of electronics
- PCB Design (including the use of CAD)
- Circuit testing and fault finding

Duration: Full year

Entry requirement: At HoD discretion

Equipment required: 2 Ltr container, A4 folder, file dividers, lined pad, and a USB flash drive

Cost: Take home component \$45 (approx.)

Contact person: Mr J. Anderson

MATERIALS TECHNOLOGY (10TMT)

Students will develop skills and safety practices, using both hand, and machine tools. Practical projects will be produced with each design project.

This semester based course is designed to give students the opportunity of working a semester each on wood and metal. It provides students with the experience needed to make an informed choice of which material suits them best for senior level study.

Duration: Full year

Entry requirement: At HoD or TIC discretion

Cost: Take home component \$40 (approx.)

Contact person: Mr P. Yeoman

PRODUCT DESIGN (10PRD)

This course is designed to complement the Year 10 Electronics and DVC courses and build skills that will lead on to Year 11 Product Design.

The course will centre around three design and make projects, looking at a variety of materials and different design processes.

Students will learn to combine art, science and technology to design and create their products, utilising computer aided design and manufacture.

Product design will teach students to:

- Effectively communicate design ideas through freehand drawing and rendering techniques
- Develop these ideas through to a viable outcome
- Refine and communicate their final design ideas through the use of 2D and 3D computer software
- Recognise the properties and limitations of different types of resistant materials
- Construct their finished design to a high standard

Duration: Full year

Entry requirement: At HoD discretion

Equipment required: An A4 sketch pad, USB flash drive, pencils, coloured pencils, eraser, etc

Cost: Take home component \$40 (approx.)

Contact person: Mr P. Yeoman







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