

Western Springs College

Ngā Puna O Waiōrea

**Year 10 Course Book for
2017 Compulsory Courses**



**WESTERN
SPRINGS
COLLEGE**

NGĀ PUNA O WAIŌREA

WHAIA TE MĀTAURANGA

Year 10 Compulsory Subjects In the English Medium Part of WSC

Compulsory Subjects

English (4 hours a week for the year)

Health Education (1 hour a week for the year)

Mathematics* (4 hours a week for the year)

Physical Education (2 hours a week for the year)

Science (4 hours a week for the year)

Social Studies (3 hours a week for the year)

Optional Subjects

The remaining 6 hours of the Year 10 timetable are made up option subjects.

Students take *either*:

4 option subjects, with each option running half a year and involving 3 hours of lesson time a week;

or,

1 whole year language option involving 3 hours of lessons a week over the full four terms, and 2 half-year options running half a year and involving 3 hours of lesson time a week

Details of Option Courses can be found in the *WSC Year 10 Options Course Book*.

How to use the Subject Charts

The Course or Subject Name

The Timetable Provision for the Subject

(E.g. Compulsory Subject, All Year, 1 Lesson a Week)

A Brief Overview of the Course

A Note on How the Subject Continues on throughout the school.

(E.g. "At WSC English is offered up to Level 3 NCEA and Scholarship.")

Course Content/ Course Structure

(A brief outline of the main sections of the course.)

Learning Outcomes (LOs) for the Course

(With the Learning Dispositions (LDs) relating to conduct, effort and organisation, these will be used to generate the termly Learning Reports. Students will be given an Excellence, Merit, Achieved or Not Achieved for each of the LOs they have worked on during the term.)

Assessment

(The variety of assessment methods that are used in the course. Note, not all assessment will be linked to LOs.)

NCEA Standards

The numbers, names and details of any NCEA AS that students will take in this course. Some compulsory and option subjects include Ass in their Year 10 courses, others do not.

Equipment Required

(If students will need to bring any specialist equipment for the course it will be noted here.)

No Course Fees

(If there are any course fees they will be noted here.)

English

(Compulsory Core Subject, All Year, 4 Lessons a Week)

Our vision is to introduce and develop in our students the attitudes, skills and knowledge required to become confident, articulate and thoughtful members of New Zealand society. Success in English is fundamental to success across the curriculum, as all learning areas require students to receive, process and present ideas using English as a medium. By understanding how language works, young people can learn to make appropriate language choices and apply them in a range of contexts. Through studying and enjoying a diverse range of texts, students can develop a stronger sense of their own identity in the world, and an appreciation of their rich multicultural heritage. Note that the Year 10 course is part of a two-year programme at WSC arranged to cover the English Curriculum in depth.

At WSC English is offered up to Level 3 NCEA and Scholarship.

Course Content/ Course Structure

Our course is designed to develop students' skills in the following areas:

- Listening
- Reading
- Viewing
- Speaking
- Writing
- Presenting

Learning Outcomes for the Course

Each term, English teachers will choose a unifying theme or topic on which to base their programme and will teach and assess two of the following Learning Outcomes:

- Develop formal writing skills
- Respond to written text(s)
- Respond to visual text(s)
- Close reading of written text(s)
- Close viewing of visual text(s)
- Present ideas in a visual form

- Complete 2 logs for **AS 90854*** (in each of Terms 1, 2 and 3)
- Construct and deliver a speech to an audience for **AS 90857*** (Term 4)

(*Details of the two Level 1 standards are given below)

Assessment

Students are assessed through class tests, oral presentations, visual presentations, essays, group tasks and assignments.

NCEA Standards

In year 10, students will attempt two Level 1 Achievement Standards:

AS90857 V1 Construct and deliver an oral text – which will involve writing and delivering a 3 minute speech in term four.

AS90854 V1 Form personal responses to independently read texts – which will involve writing two brief logs on books and films in each of the first three terms. (6 in total)

Equipment Required

1B5 exercise book, pens & pencils.

No Course Fees

Health Education

(Compulsory Core Subject, All Year, 1 Lesson a Week)

The aim of this course is to develop students understanding health issues and the underlying concepts of health (hauora, the socio-ecological perspective, health curriculum 'attitudes and values', and health promotion). Students will build their resilience through further developing their self-management skills and by engaging in processes for responsible decision-making. They learn to evaluate the impacts that social and cultural factors have on relationships and they develop the skills to identify and access community agencies.

At WSC Health is offered up to Level 3 NCEA.

Course Content/ Course Structure

- Group processes – effective groups and being an effective group member.
- Resiliency Building – listening skills, risk identification and management, sexual harassment, cyber safety.
- Alcohol – reflect on current influences on alcohol issues, choices and behaviours; investigate contributing factors and the impact on self, others and society; develop strategies to keep self and others safe.
- Drugs –work effectively in a large group when planning and implementing a debate on marijuana legislation, examine NZ law in relation to other drugs and the effects on well-being.
- Sexuality – relationship and sexuality safety and risk management (including rights and responsibilities), adolescent reproductive development, contraception, STI's, support and helping agencies.
- Stress management.

Learning Outcomes for the Course

Note: Teachers will select 3 Learning Outcomes for each term.

TERM 1

- Demonstrate understanding of procedures and strategies to manage cyber safety.
- Demonstrate knowledge of a range of skills and processes to make safe choices for themselves and other people.
- Demonstrate knowledge of school and community services to support well-being.
- Describe options to achieve positive outcomes in interactions with others.
- Demonstrate effective self-management strategies in group situations.

TERM 2

- Investigate and evaluates adolescent attitudes and behaviours that affect alcohol choices and drinking patterns.
- Demonstrate skills to collate and accurately interpret data.
- Use effective self-management to meet deadlines.
- Demonstrate a range of effective interpersonal skills when working with-in a group.
- Ask question and challenge assumptions and perceptions of alcohol issues.

TERM 3

- Develop a creative presentation that informs others on possible influences on the drinking patterns of adolescents.
- Actively participate in a presentation informing others on potential health issues or risk management in situations involving alcohol.
- Use enquiry skills to research valid and reliable information for the marijuana debate.
- Demonstrate skills for delegating, prioritising, task completion and organisation.
- Actively contribute to small and large group tasks.

TERM 4

- Demonstrate understanding of rights and responsibilities for achieving positive outcomes in relationships
- Describe effective strategies for managing risk situations
- Demonstrate understanding of possible impacts of health issues on the well-being of self and others.
- Demonstrate effective and appropriate interpersonal skills within a range of contexts
- Demonstrate effective self-management strategies.

Assessment

Throughout the year we use a range of assessment methods. Formative assessment is ongoing throughout the year, it includes participation in class and group discussions and activities.

- There are three summative assessments during the year:
- Cyber safety – create a ‘webpage’ on cyber safety
- Alcohol Presentation – collating class responses and reporting back on current alcohol related issues. Teacher assessment of collation and evaluation; peer assessment of presentation.-Group Processes Demonstrate skills for being an effective group member.

NCEA Standards

None

Equipment Required

WA4 Exercise book

No Course Fees

Mathematics and Statistics

(One Route within a Compulsory Subject, All Year, 4 Lessons a Week)

The course consists of 3 strands; Number and Algebra, Geometry and Measure, and Statistics and Probability based on the New Zealand Mathematics Curriculum.

The aim of this course is to extend students Mathematical knowledge while at the same time developing their creative, critical, strategic and logical thinking skills.

Students will also be introduced to NCEA internal standards as well as the layout of the external standards.

This course prepares students to take a full NCEA Level 1 Mathematics course in Y11.

At WSC Calculus, Statistics and General Mathematics is offered up to Level 3 NCEA, and both Calculus and Statistics at Scholarship.

Course Content/ Course Structure

The 3 strands are divided into 6 units for teaching and assessment purposes.

Term 1

- **Number:** number properties and operations, BEDMAS, fractions, decimals, percentages, ratios and problem solving.
- **Probability:** working with probabilities, estimating outcomes, using the PPDAC cycle to investigate probability.

Term 2

- **Algebraic Manipulation:** simplify algebraic expressions, expanding and factorising, solving equations and substitution into formulae.
- **Sequences and Graphs:** algebraic formulae of a sequence, plotting graphs, gradient of a line, y-intercept, and equation of a line.

Term 3

- **Geometry and Measures:** angle construction, angle theory and geometric reasoning, Pythagoras and trigonometry
- **Revision:** how to revise for Mathematics external exams, use of past papers, finding resources and identifying areas in need of work.

Term 4

- **Statistics;** PPDAC cycle and bivariate (2 variables) data

Learning Outcomes for the Course

Term 1

- Apply numeric reasoning in solving problems.
- Investigate and apply various methods in situations involving probability.

Term 2

- Apply algebraic procedures in solving problems.
- Investigate relationships between tables, equations and graphs.

Term 3

- Conduct an investigation into a problem using geometry and measurement.
- Act on feedback and use revision to progress their learning and achievement.

Term 4

- Investigate numerical data using the statistical enquiry cycle.
- Develop independent study skills through completion of homework and revision.

Assessment

This course is assessed using a mixture of end of topic tests, investigational projects, exams in Term 3 and 4, ongoing teacher in class assessment and two Level 1 NCEA achievement standards.

NCEA Standards

Term 1

1.1 (AS91026 v3) Apply numeric reasoning in solving problems. (4 Credits.)

Term 4

1.11 (AS91036 v3) Investigate bivariate numerical data using the statistical enquiry cycle. (3 credits)

Where necessary students will have the opportunity to retake and improve their results in these standards in Year 11.

Equipment Required

Scientific Calculator; Ruler and Protractor.
Internet access at home or through homework centres at school.

Course Fees

\$30.00 - Covers registration for Maths buddy the online homework system that we subscribe to and other resources.

Accelerated Mathematics and Statistics

One Route within a Compulsory Subject, All Year, 4 Lessons a Week)

The course consists of 3 strands; Number and Algebra, Geometry and Measure, and Statistics and Probability based on the New Zealand Mathematics Curriculum.

The aim of this course is to extend students Mathematical knowledge while at the same time developing their creative, critical, strategic and logical thinking skills.

This is a full NCEA Level 1 Mathematics course which includes 4 external standards and prepares students to take NCEA level 2 Advanced Mathematics in year 11.

At WSC Calculus, Statistics and General Mathematics are offered up to Level 3 NCEA, and both Calculus and Statistics at Scholarship.

Course Content/ Course Structure

Term 1

- **Sequences and Graphs:** algebraic formulae of a sequence, plotting graphs, equations of linear and graphs.
- **Algebraic Manipulation:** simplify algebraic expressions, expanding and factorising, solving equations, Inequalities and substitution into formulae.

Term 2

- **Multivariate Statistics:** PPDAC cycle and Multivariate data

Term 3

- **Number:** number operations, fractions, decimals, percentages, ratios and problem solving.
- **Geometry and Measures:** Pythagoras, trigonometry including 3-dimensional problems and geometric reasoning.

Term 4

- **Revision:** how to revise for Mathematics external exams, use of past papers, finding resources and identifying areas in need of work.
- **Statistics and Probability:** interpreting graphs and data and understanding probability.

Learning Outcomes for the Course

Term 1

- Apply algebraic procedures in solving problems.
- Investigate relationships between tables, equations and graphs.

Term 2

- Investigate a given multivariate data set using the statistical enquiry cycle.
- Use appropriate technologies in solving problems.

Term 3

- Apply numeric reasoning in solving problems.
- Apply geometry reasoning in solving problems.

Term 4

- Demonstrate understanding of chance and data.
- Investigate bivariate numerical data using the statistical enquiry cycle.

Assessment

This course is assessed using a mixture of end of topic tests, investigational projects teacher in class assessment and NCEA achievement standards.

The NCEA achievement standards consist of 3 internal assessment, an external exam in September, and 3 NCEA external exams in November.

NCEA Standards

Term 1

1.2 External (AS91027 v4) Apply algebraic procedures in solving problems. (4 credits)

1.6 External (AS91031 v3) Apply geometric reasoning in solving problems. (4 credits)

Term 2

1.3 Internal (AS91029 v3) Apply linear algebra in solving problems. (3 credits)

1.10 Internal (AS91035 v3) Investigate a given multivariate data set using statistical enquiry cycle. (4 credits)

Term 3:

1.1 Internal (AS91026 v3) Apply numeric reasoning in solving problems. (4 credits)

1.12 External (AS91037 v2) Demonstrate understanding of chance and data. (4 credits)

Term 4

1.11 Internal (AS91036 v2) Investigate bivariate numerical data using the statistical enquiry cycle. (3 credits)

Equipment Required

Scientific Calculator.
Ruler and Protractor.

Course Fees

\$30.00 - Covers the NCEA level 1 Nulake homework book and other revision resources.
\$ 76.60 - NZQA entry fee (2014 cost)

Physical Education

(Compulsory Core Subject, All Year, 2 Lessons a Week)

In year 10 Physical Education we build from the previous year's knowledge. We explore different activities with the aim that students will become more aware of leading a physically active lifestyle. Our aim is to prepare students for level 1 NCEA Physical Education.

At WSC Physical Education is offered up to Level 3 NCEA and Scholarship.

Course Content/ Course Structure

- Omnikin and Social Responsibility.
- Transform Your Life (exploring lifestyle and how to become more active) Te Ao Kori (investigating traditional Maori games).
- It's In The Game (creating and running a unique game).
- Aussie Rules (looking at skills through Australian rules football).
- Touch (using the sports education model - student lead sessions).
- Anatomy and the human body.

Learning Outcomes for the Course

Term 1

- Demonstrates interpersonal skills when participating in a team games.
- Demonstrate effort and involvement by learning traditional Maori Games.

Term 2

- Demonstrate a range of interpersonal skills when working in small groups to create a unique game.
- Plan, organise and run a unique game that can be played by all members of the class.

Term 3

- Demonstrate understanding of basic functional anatomy including naming bones, muscles and anatomical movements.
- Arrive fully prepared to take part in PE, with uniform, and equipment, and preparatory tasks completed.

Term 4

- Demonstrates understanding of the roles and responsibilities of team management and apply this to a Touch context.
- Demonstrates a variety of leadership skills that contribute to the success of their team whilst playing and training for Touch.

Assessment

Throughout the year we use a range of assessment methods. The majority of our assessment is formative (on-going through participation and demonstrating skills such as interpersonal skills). We do have 1 summative assessment that draws on students' knowledge of the body (anatomical movement). There are also 2 skill-based assessments. In one assessment students complete a timed cross-country run. In the second students are graded on their performance of Australian rules football.

NCEA Standards

None

Equipment Required

Physical Education Uniform. To be purchased from the front office

- Shorts - \$30
- T-Shirt - \$40

No Course Fees

Science

(Compulsory Core Subject, All Year, 4 Lessons a Week)

This is a full year course is taken by all Year 10 students. The aim of the course is to develop Science literacy and investigative skills at level 5 of the New Zealand Curriculum. The units of work are based on Learning Outcomes from the 4 different content strands of Science with an overarching focus on the Nature of Science.

At WSC Science is offered through the various science subject areas of Biology, Chemistry and Physics, up to Level 3 NCEA and Scholarship. Science also leads to General Science into Environmental Sustainability courses, which are offered at WSC in Levels 2 and 3.

Course Content / Course Structure

Tinana / Our Healthy Bodies

Nutrition, health & diseases as a result of poor lifestyle choices. The human digestive system, and associated impacts on the respiratory and circulatory systems of poor diet choices. Research will be into a current health issue related to diet.

Waiora / Our Precious Water

Water is used as a context to examine issues of water supply or contamination. The context requires understanding of the chemistry of atoms, molecules, elements and compounds, including electron behaviour in ionisation.

Hikohiko / Electricity in our Homes

Research into the generation of electricity and/or energy conservation in NZ. Introduction to simple electrical circuits, and investigating how electrical resistance changes in circuits as more things are plugged into the same socket.

Waikawa/ Ocean Acidification

Human effect on balanced ecological processes, ocean acidification and Global warming. The effects of burning fossil fuels, investigations into photosynthesis and combustion. Testing of substances to determine which are acids or bases. Making and using an indicator. Chemical reactions of acids – especially with carbonates.

Taikaha / Balloons and Rockets

Working scientifically, designing and carrying out investigations into moving things to understand the action of forces.

Papatuanuku / Forces that Shape our Land

Geological history of NZ and plate tectonics. The formation of NZ's volcanoes, particularly the Auckland Volcanic Field. A local field trip.

Learning Outcomes for the Course

Each term, science teachers will choose two or three of the following learning outcomes to report to parents. The report will indicate the progress each student is making.

- Gather and interprets scientific data
- Use scientific evidence
- Critique scientific evidence
- Design and carry out a scientific investigation
- Explore an environmental issue relating to water and make recommendations for action.
- Use models to communicate a scientific understanding of local landforms & processes.
- Shows understanding that scientific knowledge changes over time.
- Communicate scientific ideas clearly
- Identify key structural features of the digestive system and relate these to their function.
- Apply their understanding of science to evaluate both popular and scientific texts.
- Link the properties of substances to the way they are used in society or found in nature
- Identify and describe features of simple electrical circuits.
- Gather scientific information to make evidence-based recommendations for environmentally sustainable electric energy generation.
- Describe the basic processes by which genetic information is passed from one generation to the next.
- Gather scientific information to make evidence-based recommendations about genetic issues or uses in society.
- Investigate the everyday uses and properties of acids and bases.
- Research a socio-scientific issue and make recommendations for action.
- Identify and describe patterns associated with forces found in simple everyday situations.

Assessment

Assignments
Presentations
Practical Assessments
End of Unit Assessments

NCEA Standards

None

Equipment Required

Normal stationery requirements in order to maintain a complete and ordered record of work from which to revise for tests.

No Course Fees

\$15 - Day trip around features of the Auckland Volcanic Zone.

Social Studies

(Compulsory Core Subject, All Year, 3 Lessons a Week)

Social Studies is about how societies work and how people can participate as critical, active, informed, and responsible citizens. Contexts are drawn from the past, present, and future and from places within and beyond New Zealand.

This subject is a full-year course, with three lessons a week. It covers Achievement Objective Level 5 from the NZ curriculum.

At WSC Social Studies is offered in the various subject areas in the senior school up to Level 3 NCEA and Scholarship (i.e. via Classical Studies, Economics, Geography and History).

Course Content

- Nazi Germany
- Human Rights
- New Zealand History
- Development – Unequal world

Learning Outcomes for the Course

Term 1

- Demonstrate understanding of the Social Studies research process.
- Use a variety of skills to show understanding of the Nazi Germany topic.

Term 2

- Carry out an investigation of a current human rights issue.
- Demonstrate understanding of a current human rights issue.

Term 3

- Demonstrate understanding of the planning process.
- Demonstrate understanding of significant NZ events/people.

Term 4

- Demonstrate understanding of developed and developing countries.
- Demonstrate understanding of key Social Studies knowledge and skills.

Assessment

In Social Studies students in Year 10 will complete a range of different assessments, which include: paragraph and essay writing, topic tests, recognising different perspectives and social inquiry research.

NCEA Standards

None

Equipment Required

For students to succeed in Social Studies they should have the following:
A4 exercise book, pens, pencils, eraser, ruler, scissors, coloured pencils and a glue stick.

No Course Fees