

IGNITE

SANTA MARIA COLLEGE

IGNITE is the name of our gifted and talented program.

We aspire to ignite a passion for learning. To this end we have designed an exciting and unique curriculum for our academically gifted students. Each IGNITE unit is made up of a variety of opportunities for creative, high-order, lateral-thinking and problem-solving activities, where each student has the flexibility to develop her particular strengths.

These exciting courses provide opportunities in the areas of STEM (Science, Technology, Engineering and Mathematics) and Creative Arts. All units challenge students beyond their comfort zone in a supportive environment.

*‘When kids look up to great
scientists,
the way they do to great
musicians and actors, civilization
will jump to the next level.’*

Brian Greene, American theoretical physicist, string theorist and professor at Columbia University

IGNITE – YEAR 5

Students participate in the course from Terms 2-4. They are withdrawn for two periods a week from a Core Subject.

Course Description

Term 2: Brain Teasers and Synapse Snappers

An introduction to the IGNITE program where students will participate in a number of problem-solving and creative thinking activities. This is a fun and engaging course that encourages students to think outside the box and take risks.

Terms 3 and 4: Night of the Notables

In order for the students to understand their own potential, it is important to understand the terms that are often linked to potential such a 'giftedness', 'talent', 'intelligence' and 'creativity'. One way to do this is to study the life of an eminent person and how they used their own giftedness, talent, intelligence and creativity. In this program students will be researching the life of an eminent woman - using and creating a range of resources about their notable. To fully appreciate the impact these women had on our lives, students will step into their shoes and become them for the Night of the Notables.

Term 4: STEMtastic

In the remaining weeks of the year we'll have some STEMtastic fun - creating, building and preparing for Christmas.

IGNITE – YEAR 6

Students participate in the course from Terms 1-4. They are withdrawn for two periods a week from a Core Subject.

Course Description

Term 1: Robotics

From exploring the volcanoes on Mars to vacuuming our floors – robots are part of life in the 21st Century. In this unit of study students investigate the world of robotics, build their own robots and program them to complete tasks. An exciting and innovative program, Robotics truly integrates STEM and the Creative Arts.

Term 2: Kings Court

Students begin the term with a study of the courts of Ancient Egypt and Medieval Europe. They research the grandeur of the palaces and the social and political roles that people played within them. Using this as a basis they create their own Kings Court with a diorama and play. Imaginations run wild – where will their Courts be set: In the land of the fairies? Under the ocean? In the kitchen? It is always exciting to see where their imagination takes them.

Term 3: Rube Goldberg

Rube Goldberg spent 55 years drawing cartoons of machine and contraptions. His cartoons depicted simple household items, connected in funny but logical ways to perform a simple task.

Rube Goldberg believed that most people preferred doing things the hard way instead of using a more simple and direct path to accomplish a goal. In the words of the inventor, the machines were a 'symbol of man's capacity of exerting maximum effort to achieve minimal results'. His drawings became so well known that the Webster's Dictionary defined the term rube goldberg as 'accomplishing by extremely complex, roundabout means what seemingly could be done simply'. Inspired by cartoonist Rube Goldberg, students design a machine that uses a complex process to complete a simple task.

Term 4: Human Rights

Inspiring future justice warriors. This term we investigate the UN Declaration of Human Rights. We review how people, particularly children, are treated around the world. Students research a right that is of special interest to them and produce an infographic the aim of which is inform others of human rights abuses around the world.

IGNITE – Year 7

Students participate in the course from Terms 1-4. They are withdrawn for two periods a week from a Core Subject.

Course Description

Term 1: Growth Mindset, Resilience & Goal Setting

Growth Mindset is an idea developed by world-renowned Stanford University psychologist Carol Dweck.

Brain and talent are just a starting point. People with a Growth Mindset believe that their most basic abilities can be developed through dedication and hard work. This view creates a love of learning and a resilience that is essential for great accomplishment. All great people have had these qualities.

Teaching a growth mindset creates motivation and productivity at the same time as enhancing relationships. This engaging course, which focuses on cooperative learning, will guide students through Growth Mindset principles in a fun and engaging way.

Term 2: Brain Teasers and Synapse Snappers

An introduction to the IGNITE program where students will participate in a number of problem-solving and creative thinking activities. This is a fun and engaging course that encourages students to think outside the box and take risks.

Term 3: STEM Renaissance Style

A fun and creative way to study the important period of the Renaissance. We will research this important historical period through a study of "Renaissance Men and Women" and their creations. Students will create a prototype of da Vinci's parachute man, create a crane and study their own modern day Mona Lisa. In this class students are urged to be thinkers not repeaters; creators and artists instead of manufacturers.

Term 4: Fantasy Fanatics

From Bilbo Baggins to Harry Potter; from Gandalf to Dumbledore; the world of fantasy fiction ignites the imagination of young and old alike. This unit plays to that high interest and allows students to analyse the genre of fantasy and use their research to create their own fantasy world.

IGNITE Elective Year 8

IGNITE is offered as a semester based elective. Students participate in the program for five periods a cycle. Students may choose to participate in one or both semesters.

Course Description

SEMESTER 1

Term 1: Robotics

From exploring the volcanoes on Mars to vacuuming our floors – robots are part of life in the 21st Century. In this unit of study students investigate the world of robotics, build their own robots and program them to complete tasks. An exciting and innovative program, Robotics truly integrates STEM and the Creative Arts.

Term 2: Neuroscience

The wondrous workings of the brain are discovered in this neuroscience unit. We begin by investigating the different parts and functions of the brain. Students continue this work by researching an area of the brain that interests them. Students present their findings to the class by creating an experiential lesson for their classmates.

SEMESTER 2

Term 3: Silent Movies

The world of silent movies of both the past and present are explored in this engaging unit. We discover the stars of yesteryear and investigate their continuing impact on modern movie making. Once the students imaginations are sparked their task is to create their own silent movie.

Term 4: Socratic Seminar: Poetry

The Socratic method is based on Socrates' belief that students should engage in higher level thinking through disciplined conversation. In our Socratic Seminar, students will work together to gain a deeper understanding of the complex ideas presented in the chosen poem.

Assessment Structure

Each course requires the student to complete a project based on the theme of the unit. Projects are given teacher and peer feedback. This course is not graded.

A note on student selection Years 5-7:

An application process is required to gain entry into the IGNITE program. Selection will be based on the written application, school based testing, NAPLAN results, teacher recommendation and participation in previous GATE programs.

Students who have completed the IGNITE program in Year 5 may be invited to join the IGNITE program in Year 6. Parents wishing to enrol their daughter in the IGNITE program in Year 6, for the first time, will be required to complete an application.

All students entering Year 7 are required to complete a new application for IGNITE, regardless of their previous enrolment in the course in Years 5 and 6.

For those wishing to participate in the Year 8 IGNITE Elective:

Students who completed IGNITE in Year 7 are automatically invited into the Year 8 program - they do not have to complete an application.

For those who have not participated in IGNITE in Year 7

An invitation asking students to participate in the program will be sent to selected students based on their school based testing, NAPLAN results, teacher recommendation and participation in previous GATE programs. For other students wishing to participate in the program an application form is available on the school website.

*** Please note that all courses are subject to change.**
