SOUTH GRAFTON HIGH SCHOOL

Gifted and Talented Extension Opportunities

Part 2

Peter Johnstone and Ray Pobjoy 2016



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Enterprise

Title: One of the essential ingredients in running a business successfully is enterprise: the ability to take and make opportunities. Many people have tried to identify the personal characteristics of an entrepreneur, suggesting they are: Self-motivated; Self-disciplined; Moderate risk taker; Logical decision maker; Good communicator; Sets goals; Accepts responsibility; Takes advice; Willing to learn; Deals with failure; Gets on well with people; Leadership qualities; Good health; Desire to succeed

Choose ONE famous male and female entrepreneur. Research their life and business dealings to see how they compare against these criteria. Turn your findings into a PowerPoint presentation to share with the school over Moodle.

Some entrepreneurs you may study: Richard Branson; Bill Gates; Oprah Winfrey; Vera Wang; Donald Trump; Steven Spielberg; Ray Croc; Rupert Murdoch; Jan Cameron; Ita Buttrose; Dick Smith *or someone of your own interest.*

Audience: This presentation will be reviewed by your supervisor and then made accessible to all students at SGHS using Moodle.

Method of delivery: Your completed work should presented electronically.

Supervisor: Mr Johnston

Assessment: Your task will be assessed against the following criteria:

- Evidence of research
- Effectiveness of the communication
- Understanding of enterprising characteristics



Everest

Title: Everest is the highest mountain in the world and was first climbed in 1953. Since then thousands have climbed Everest. You are tasked with investigating the climbing of Everest and the impact on the local environment and economy.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



The First Fleet

Title: On 13th May 1787, eleven ships left the United Kingdom to start a colony in Australia. Investigate the First Fleet.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.

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Formula 1 car design

Title: Formula 1 started in 1950. Over the years there have been major changes in the design of the cars. Investigate the design of Formula 1 since 1950.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.

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Fossil Fuels

Title: At present 86% of electricity in Australia is produced using fossil fuels. Many scientists believe that the carbon dioxide that is produced when burning fossil fuels is damaging the environment. Investigate electricity supply and usage in Australia.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.

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The School Gardens

Title: The school's gardens are in constant need of renewal. Their construction creates work health and safety issues, teaching opportunities, maintenance concerns and aesthetic problems. Your task is to choose one of the school's gardens and develop a planting plan for it. Provide justifications for your choices and present your conclusions as a presentation for the school principal and the general assistant. You should include a diagram of the garden following industry practice.

Your garden can be themed if you choose, for example:

- Ornamental
- Native
- Xeriscaping
- Sensory
- Bush tucker
- Asian
- Rainforest

Audience: This presentation will be reviewed by your supervisor as a digital map and presentation. You may work as an individual, in pairs or as a group.

Method of delivery: Your completed work should presented electronically.

Supervisor: Mr Johnstone

Assessment: Your task will be assessed against the following criteria:

- Evidence of research
- Effectiveness of the communication
- Justification of chosen species
- Consideration of maintenance, WHS, aesthetic & educational issues



Genghis Khan

Title: At the end of the 12th Century, Genghis Khan united nomadic tribes in Asia to create the Mongol empire. Investigate Genghis Khan and his impact on history.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.

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Genocide

Title: Genocide is the deliberate attempt to destroy a people group and has been an unfortunate feature of human civilisation. The international definition identifies a number of elements that covers actions such as Hitler's death camps during WW2, Russia's famine in the Ukraine over the 1930s and government policies that removed children from their families in Australia, Canada and the USA. Investigate the events surrounding an ancient, medieval or modern genocide. Do they meet the international criteria? What has been the consequence for the people involved in the genocide? How is the genocide seen today? Present your findings in any one of the following ways:

- a digital multimedia presentation
- a word processed report with relevant images maps and charts
- a music and dance item interpreting the events and their consequences
- a series of artworks incorporating the key ideas of your research
- a short drama performance with a number of scenes

Audience: This presentation will be reviewed by your supervisor and published or presented in the school at a time relevant for commemorating the genocide. It can be completed as an individual, pair or group task.

Method of delivery: Your completed work should presented electronically where possible and appropriate. This may involve filming a performance.

Supervisor: Mr Johnstone

Assessment: Your task will be assessed against the following criteria:

- Evidence of research
- Effectiveness of the communication
- Understanding of the definition of genocide and its application



Glaciers

Title: Glaciers are rivers of ice and are the largest moving objects on earth. Investigate glaciers.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



Global Warming Refugees

Title: While scientists and politicians debate the existence and effects of global warming, there are countries whose very existence is threatened by rising sea levels. The island nations of Kiribati (pronounced Kiribas) and Tuvalu are neighbours in the Pacific Ocean. They are mainly isolated coral atolls stretched over thousands of kilometres. The leaders of these countries are already seeking new countries to live in. Investigate the science behind what is occurring in either of these nations and the nature of life there. From this research develop a recommendation for the leaders of these countries for the best course of action. Your opinion should be expressed in a word processed letter which includes the reasons for your view, maps, images and other appropriate evidence to support your reasons.

Audience: This presentation will be reviewed by your supervisor and used a stimulus for discussion in the junior Geography course.

Method of delivery: Your completed work should presented electronically.

Supervisor: Mr Johnstone

Assessment: Your task will be assessed against the following criteria:

Evidence of research

- Effectiveness of the communication

Strength of your reasoning and recommendation



Gumbaynggirr

<u>Title:</u> The Gumbaynggirr community are looking to encourage the use of the Gumbaynggirr language in our region. You are tasked to learn key phrases in Gumbaynggirr and contribute to understanding of the language in South Grafton.

Audience: You may choose to present your learning to Mr Skinner, members of the Gumbaynggirr people, other students, teachers or the wider community.

Method of delivery: You may choose to present your learning in a report, a presentation, a drama, through dance or in any other appropriate method. Methods that would enhance the learning of others would be given additional credit.

Supervisor: Mr Skinner

Assessment: This is an open ended and self – directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



History All Around Us

Title: in this task you have been asked to survey the local heritage of the area you live in to create a digital local history museum. Conduct your own fieldwork, photographing and noting the details of examples of history around you. This may include:

- War memorials
- Historic houses
- Sites where events occurred
- Cemeteries
- Plaques commemorating events
- Honour roles
- Local schools

Organise your work under key themes that capture the main ideas in your chosen community's story.

Audience: Your answers will be reviewed by your supervisor as a multimedia presentation. This task can be completed individually, in pairs or as small groups.

Method of delivery: Your completed work should presented electronically.

Supervisor: Mr Johnstone

Assessment: Your task will be assessed against the following criteria:

- Comprehensiveness of your fieldwork
- Effectiveness of the communication
- Identification of useful themes

If you are interested in finding out about this or any other Gifted and Talented Extension Opportunity please see Mr Johnstone.

GATEO Part 2



How rich am I?

Title: How rich are you in comparison to the rest of the people in the world? Investigate poverty using websites such as www.globalrichlist.com

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



The Hubble space telescope

Title: The Hubble space telescope was launched on 24th April 1990. You are tasked with investigating the Hubble space telescope and what it has achieved.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



I Object!

Title: in presenting a legal argument, lawyers call in witnesses to provide first hand evidence relevant to the case. However the witness cannot say whatever they like. As their testimony is being given it is up to the opposing lawyer to identify any statements which break the rules. *In this project you will investigate the grounds for objection and then practice it using a mock trial script.*

Part A Answer the following questions:

- What is a leading statement?
- Explain what is meant by hearsay? Why is it against the rules of evidence?
- What makes a statement irrelevant?
- What is a double question? Provide an example.
- Can you raise issues about a witnesses bad character in evidence?
- What is the rule in Brown vs Dunn?
- Is a lawyer allowed to harass a witness like you see on television?

To complete this part of the task use internet sources such as the NSW Law Society and their mock trial materials.

Part B Read the attached script. Using a colour code you develop, identify any parts of the testimony you could object to and explain why.

Audience: This presentation will be reviewed by your supervisor as a word processed document. It can be completed as an individual, pair or small group task.

Method of delivery: Your completed work should presented electronically.

Supervisor: Mr Johnstone

Assessment: Your task will be assessed against the following criteria:

- Accuracy and thoroughness of your responses
- Identification of all grounds to object from the script

If you are interested in finding out about this or any other Gifted and Talented Extension Opportunity please see Mr Johnstone.

CLAUDE/CLAUDIA DAMPIER of 2/45 Wombat Lane, Calm Beach, Unemployed states:

1. 1 am the defendant.



- 2. 1 have always been interested in local government and I decided to run for election to the Calm Beach Council following the death of one of the councillors. I was out of work at the time and it seemed a good way to help the community.
- 3. At that time that there was a great deal of community concern over the decision of the council to licence a local manufacturer to use the power poles to dry its spaghetti.
- 4. I didn't have much funding for my campaign so lonely held one rally which was at the Calm Beach Community Hall. It was on the 26th July, 2001.
- 5. 1 remember that some people turned up with a banner which said "Down with Spaghetti". They must have hung it up near the stage. I didn't say anything but it certainly wasn't my banner.
- 6. 1 do not have a copy of the speech I made but I recall that it was very well received. I do remember saying "I stand for open, honest local government. The present council is destroying the town." I firmly believed this to be true. I also said "The council have sold advertising space on council garbage bins and they have sold our power poles to the Sapristi Spaghetti Company. Where will it end?" I said the bit about the spaghetti company because I remembered the people there with their banner saying "Down with Spaghetti" and I thought they would like that.
- 7. Somebody in the audience, I couldn't see who, called out; "What are you going to do about it?" I said "If I am elected my policy is to see if the use of council poles for drying spaghetti can be stopped when the current contract ends next April. You have my word that I will do it, if it is financially responsible."
- 8. There was a good bit of clapping and cheering when I said this and the last bit may have been drowned out a bit.
- 9. When the meeting was over my campaign manager and I discussed the meeting. My campaign manager asked me how I was going to stop the spaghetti roll out and I said that it was difficult because I knew that it made a lot of money for the council. I remember that I said something like "Nobody would expect me to promise that. Everyone knows I'll do my best if I get elected. The rest of them won't want to lose their lovely \$20,000 a year allowance so it won't be easy."
- 10. My campaign manager said to me "What if you have to increase rates? It's not going to look too good when you come up for reelection." I said "If we have to raise rates I'll just have to explain that it was economically responsible. Especially if we lose the revenue from the Spaghetti people."
- 11 I got elected by a pretty narrow margin although I suspect there was some dirty business about the vote counting.



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- 12. The question of the renewal of the Sapristi contract came up at a meeting on the 7th April this year. I asked the Town Clerk "What will happen if we don't renew the contract?" The Town Clerk said "We'll have to cut down on expenditure and we'll have to increase rates." I did not think that this was economically responsible and I voted for the proposal to extend the contract for a further year.
- 13. 1 did not make any unconditional promise to vote against the extension of the contract. Even if I did I do not think that people take this sort of thing seriously. They know that you have to say a lot of things which are necessarily conditional when you don't know precisely what the economic situation is.
- 14. At no time was I motivated by the thought of the \$20,000 councillor's allowance although I admit it would have come in handy.

Source: NSW Law Society

 $\underline{https://www.lawsociety.com.au/cs/groups/public/documents/internetcontent/675863.pdf}$



Development of the jet engine

Title: Just before the Second World War German and British scientists worked to develop the jet engine. You are tasked with investigating the design and development of the jet engine from then until now.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



Keeping to Type

Title: Whether a film, song, novel or short story, all texts in English fit a particular genre or category. Each genre has its own rules for how they are composed, and responders expect them to fit the pattern. A great example is the action genre: daredevil characters taking incredible risks to their safety to achieve some overall greater purpose. Other genres include romance, comedy, horror, mystery, true crime, westerns and Australiana. Choose any TWO texts to read, view or listen to. They must be from the same genre. Then complete a comparison using the following points:

- What is the same about the texts?
- What is different?
- How do they deal with their characters?
- Does the setting matter?
- Quote some examples where a crucial aspect of your chosen genre is well presented and explain how language is used in them
- Was there anything unexpected in these texts?
- Are they effective texts of their genre?

Audience: Your answers will be reviewed by your supervisor as a word processed document. This is an individual task.

Method of delivery: Your completed work should presented electronically.

Supervisor: Mr Johnstone

Assessment: Your task will be assessed against the following criteria:

- Ability to engage with the issue in the question
- Effectiveness of the communication
- Recognition of language and its role in creating genres



Killer Bees

Title: In 1957 several swarms of African Honey Bees accidentally escaped quarantine in Brazil and started to breed with local bees. Although they are believed to be better at pollination and honey making they are also more defensive than the native bees. You are tasked with investigating the spread of killer bees in South and North America and decide whether the title killer bees is justified.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



Language of French Youth

Title: You are tasked to compile a series of expressions and phrases that are used by young French people in their everyday speech.

Audience: You may choose to present your work to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Mrs Lancaster

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



Latitude and Longitude

Title: Positions on earth are often given by latitude and longitude. Investigate methods of determining latitude and longitude.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



What is my life expectancy?

Title: The country we live in, our genetics and the decisions we take make a big difference to how long we can expect to live. Use websites such as http://www.poodwaddle.com/health/lifeclock/ to investigate the factors that influence life expectancy.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.

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Our Local Environment

Title: Think globally, act locally! All around the Clarence Valley there are real geographical issues that need to be addressed. How healthy is your local creek? What chemicals are present in your soil? What flora and fauna exist in your area – and are they under threat? These are just a few questing you might choose to investigate for this task. Follow these steps:

- Develop ONE question about the interactions between the hydrosphere, biosphere, lithosphere and atmosphere in your area.
- Gather real world data to help answer the question using maps, graphs, statistics, photographs, GIS and field techniques.
- Write up your findings as a report, including a section suggesting appropriate responses for the future.

Audience: On completion, you will be asked to present your work to your supervisor. You may work on this individually, in a pair or as a team.

Method of delivery: Your completed work should presented electronically. Include your primary data as an appendix to your report.

Supervisor: Mr Johnstone

Assessment: For this task you will be assessed using the following criteria:

- Suitability of the research question
- Evidence of research
- Evidence of a range of stakeholder perspectives
- Sustainability, equity & social justice implications of your suggested actions
- Presentation of your findings using appropriate communication
- Use of appropriate technologies to complete the project



Malaria

Title: Malaria is a nasty disease caused by a parasite carried by mosquitos. According to the World Health Organisation there were 198 000 000 cases of malaria in 2013 and up to 855000 people died from malaria. You are tasked with investigating malaria.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



Many Worlds

Title: While we all live in the one world, every human experiences it in three different ways. The first is the microworld of individuals and families. The second is the mesoworld of local communities and their organisations. The third is the macroworld operating at a national or global scale. To further develop your understanding of this idea, write three journal entries or create three video blogs that investigate your own experience of these levels. Consider the following examples as a guide:

- Sport: backyard games with family, local teams, the Olympics
- Popular culture: what you enjoy in music; the latest fad or craze going through school; the globalised production of fashion
- Beliefs: your own personal beliefs; being part of a local congregation; interfaith conflict
- Work: your own volunteer work; part time employment outside of school; trade unions
- Change: growing up; opening new housing estates; global warming

Now that you get the idea you can choose your own part of culture to analyse or use one of the examples.

Audience: Your work should be submitted electronically for teacher review. It is an individual task.

Method of delivery: Your completed work should presented in a MS Word document.

Supervisor: A teacher of a choice.

Assessment: Your task will be assessed against the following criteria:

- Understanding of the three levels of culture
- Identification of appropriate personal examples
- Effectiveness of your communication



Help develop the Mathematics Website

Title: Many students find mathematical words hard to understand. The Mathematics department at South Grafton High School would like to offer a glossary of mathematical terms on each of the topic pages. You are asked to create definitions for mathematical terms that will be suitable for other students who struggle to understand mathematics because of the words.

Audience: You will present your written glossary to Mrs Fisher or Mr Johnstone, but the audience for the completed glossary will be fellow students. You may choose to work on this task individually or in a small group.

Method of delivery: When completed your glossary will be loaded onto the SGHS Mathematics website.

Supervisor: Mrs Fisher or Mr Johnstone

Assessment: Mrs Fisher or Mr Johnstone will evaluate completed glossaries and those that are of a high standard will be uploaded on the school website. If you choose, your name will be put on the glossary as the creator. There may be a reward, but your glossary will be of use to students and teachers for years to come.



Matrices taught module

Title: Matrices are an incredibly useful way to transform shapes and solve simultaneous equations with many unknowns. In NSW matrices are not taught in the Mathematics curriculum. If you would like to study Mathematics that you would not normally study in class then if there is sufficient interest from other students you could choose to study Matrices with Mr Johnstone before school.

Method: This is a taught GATEO that will be delivered by Mr Johnstone to year 9 - 12 students in ten before school lessons if there is sufficient interest.

Supervisor: Mr Johnstone

Assessment: This task will be assessed by Mr Johnstone by means of a test. Your score will determine your grade.



Measurement throughout history

Title: Ancient units of measurement such as the cubit relied on the length of parts of the body. More modern measurements rely on standard measures such as the metre. Investigate units of measurement throughout history.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.



Open Task

Title: You can choose to investigate almost anything you want in almost any way you want. Is there something you always wanted to learn?

Audience: Your work will be assessed by your supervisor. You may choose to work individually or in a group.

Method of delivery: You may present your work in any way agreed with your supervisor.

Supervisor: A teacher of your choice.

Assessment: Your work will be assessed by your supervisor and audience if appropriate.



Outbreak!

Title: Create a "how to" guide for an epidemic or pandemic affecting our world today. Your guide should include:

- What is the disease?
- Where is it currently located and what are its reservoirs?
- What are its vectors?
- What are its symptoms?
- How is it treated?
- What can be done to educate people about the risk?

Audience: Your work should be summarised down to a double sided A4 tripanelled pamphlet and submitted electronically. It should include relevant images. This will then be used as a resource in our PDHPE and Science courses for use with students.

Method of delivery: Your completed work should presented electronically.

Supervisor: Mr Johnstone

Assessment: Your task will be assessed against the following criteria:

- Accuracy of your research
- Appropriateness of your public health promotion ideas
- Effectiveness of your communication



Penicillin

Title: In 1928 a Scottish man called Alexander Flemming accidentally discovered penicillin, which became the first antibiotic medicine. Investigate penicillin and other antibiotics.

Audience: You may choose to present your report to other students, teachers, parents or members of the public. You may choose to work on this task individually, but are encouraged to work as a small group or team.

Method of delivery: You may choose to present your report in any way you deem appropriate to your audience. For example, it could be written, via a public speech or presentation, it could be musical or be delivered in a drama or dance.

Supervisor: Depending on your chosen method of presentation and content this could be any member of staff of your choice.

Assessment: This is an open ended and self-directed task. Only you will know when your task has been accomplished to your satisfaction. Your supervisor will evaluate your performance with the audience (if appropriate). If this task is accomplished well it will lead to awards within the school rewards system. Exceptional pieces of work may lead to recognition outside South Grafton High School.

