Social Science

Lower Secondary

Teacher Guide

Papua New Guinea
Department of Education

Issued free to schools by the Department of Education

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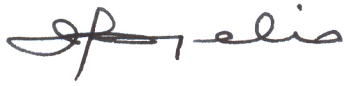
Secretary's message

This teacher guide is to be used by teachers when implementing the Lower Secondary Social Science Syllabus (Grade 9 and 10) throughout Papua New Guinea. This teacher guide takes teachers through an outcomes approach planning process. Teachers should read the guide thoroughly to become familiar with its contents before planning for the year.

The Lower Secondary Social Science Syllabus (Grade 9 and 10) identifies the learning outcomes and assessment requirements. This teacher guide contains ideas and suggestions to help teachers implement the lower secondary Social Science syllabus.

A variety of teaching and learning strategies provide teachers with ideas to make learning interesting and enjoyable. Teachers should relate learning in Social Science classrooms to real people, issues and the local environment. Social Science integrates learning across several subjects and therefore teachers are encouraged to relate concepts and skills to Mathematics, English and Personal Development teaching.

I commend and approve this lower secondary Social Science teacher guide for use in all schools with Grades 9 and 10 students throughout Papua New Guinea.



DR. JOSEPH PAGELIO
Secretary for Education

Introduction

The purpose of this teacher guide is to help you implement the Social Science syllabus. It is designed to stimulate you to create exciting and meaningful teaching programs and lessons by enabling you to choose relevant and purposeful activities and teaching strategies. It will encourage you to research and look for new and challenging ways of facilitating students' learning.

*The teacher guide and the syllabus must be used side by side***.** The syllabus states the learning outcomes for the subject and each unit, and outlines the content and skills that students will learn, and the assessment requirements.

The teacher guide provides direction for you in using the outcomes approach in your classroom using a step by step approach. Although the syllabus provides the assessment tasks at the end of each unit, the outcomes approach requires you to consider the assessment requirements early in your planning. This is reflected in the teacher guide.

This teacher guide provides examples of teaching and learning strategies for Social Science, sample programs for each unit, elaboration of suggested activities and content, detailed information on how to mark assessment tasks and the resources needed to teach Social Science. The section on recording and reporting shows you how to record students' marks and how to report against the broad learning outcomes.

Teaching and learning

How students learn

What I hear I forget.

What I hear and see I remember a little.

What I hear, see and discuss I begin to understand.

What I hear, see, discuss and do, I acquire knowledge and skill.

What I teach to another, I master.

(*Active Learning Credo* statement by Silberman, 1996)

In support of this are the findings that we remember:

- 20% of what we hear
- 40% of what we see
- 90% of what we see, hear, say and do or what we discover for ourselves.

A student-centred approach to learning

Different students learn in different ways. Some students learn best by writing, others by talking and discussing, others by reading and others by listening. Most students learn by using a combination of these. All students learn skills through practicing and repetition. You need to use a variety of teaching strategies to cater for the different ways your students learn.

Teaching and learning strategies

To assist and encourage students to learn, you perform certain tasks. These are referred to as teaching strategies. You need to engage students directly in learning but there are times when you have to take charge of the learning in the class and teach particular concepts or ideas.

Teaching strategies include:

- group and individual work
- role play/drama
- skills practice
- research/inquiry
- class discussions/debates
- problem-solving activities
- teacher talk, instructions, explanations, lectures or reading aloud
- directed question and answer sessions
- audio-visual presentations
- text books or worksheets
- directed assignments
- demonstration and modelling

- guest speakers
- field work
- classroom displays.

Using groups as a teaching and learning strategy

Using groups is an important strategy as students learn from each other and not just from the teacher and it encourages students to participate in achieving a shared goal. Group work encourages cooperative learning. In deciding whether to use groups or not, you need to consider:

- your intended outcomes
- the extent to which the outcomes can be achieved by a groups
- the lesson content
- the time allocated for the completion of the task
- the classroom setting
- available materials and resources
- the structure of the group based on gender, ability, cultural background and student preferences.

Groups work well when:

- the group decides upon their goal, timelines and tasks
- students realise that success depends on the achievement of the whole group, not individuals
- the task is broken into subtasks which must be finished to successfully complete the overall task
- the whole class is involved in the activity
- everyone has a role to play, e.g. chair, reporter, recorder
- membership of small groups is changed regularly to provide a variety of learning experiences for all students.

Strategies for organising and managing groups:

- mixed-ability groups – the more able learners in the group can help the others to master the work so that you need not teach some parts
- same-ability groups – you can leave the groups of faster learners to get on with the work on their own. You can give extra help to individual learners in the slower groups.
- using group leaders – you may appoint faster, more able learners as group leaders who can help slower learners.

Developing skills

Principles and procedures

Students need to develop skills to help them learn. Skills development should happen as a part of a student's learning experience and the practicing of skills needs to occur in the context of the units being taught.

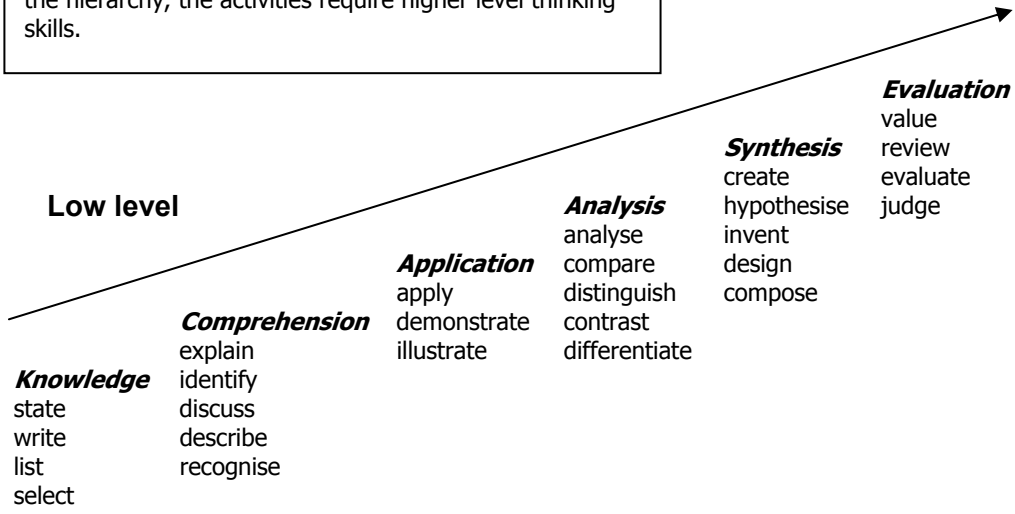
Skills learning tends to be most effective when:

- students go from the known to the unknown
- students understand why it is necessary to gain mastery of specific skills
- develop skills sequentially at increasing levels of difficulty
- students identify the components of the skill
- the whole skill and the components of the skills are demonstrated
- there are frequent opportunities for practice and immediate feedback
- the skills being taught are varied in terms of amount and type, according to the needs of students
- the skill is used in a range of contexts.

To teach skills effectively you need to include learning activities that span the range from teacher-directed to student-centred learning; use groups of different sizes ranging from the whole class to small groups and use a range of teaching strategies which use higher order skills as your students progress.

Bloom's taxonomy of skills

Bloom's Taxonomy is a way to classify skills, activities or questions as they progress in difficulty. The lower levels require less in the way of thinking skills. As you move up the hierarchy, the activities require higher level thinking skills.



Language skills for Social Science

Students need to learn how to speak and listen, read and write, view and observe. Students can learn language skills through, for example:

- discussions
- debates
- oral and written reports
- interviewing opportunities
- role-playing.

Providing opportunities for students to listen is very important. Guest speakers, CDs, tapes, radio and television are listening resources. When students come to expect a listening experience as a regular part of their classroom routine, their ability to attend to details in what they hear is quite likely to improve. Your class can go beyond just listening, and to do such things as compare and contrast two oral accounts, or evaluate written and/or oral sources in terms of various criteria you and they propose.

Place of vernacular in Lower Secondary

Maintenance of the student's language is something that continues at Lower Secondary as stated in the Department of Education's Language policy in all schools. At times it will be appropriate to use vernacular, Motu or Tok Pisin to explain concepts or ideas. Vernacular can be used to describe and illustrate those things that do not have English translations. There will also be opportunities to use exercises which target vernacular development such as from English to the vernacular, Motu or Tok Pisin. For example, it would be appropriate to use the vernacular, Motu or Tok Pisin when using surveys or finding information from the community.

Writing skills

Students must be able to choose the right word to get the message across and be able to put words together in a way that makes sense to the reader. The ability to write well and use appropriate vocabulary takes a lot of practice and writing skills and techniques should be emphasised in Social Science.

Note-taking and summarising

Teaching students the skills of taking notes will be well worth the time it takes you to do so. Students need to develop their own schemes for organising and connecting information which they obtain. This is especially important when many different texts and other data sources are used.

Thinking and questioning skills

Social Science assists students to analyse and think critically about information they come across. By processing information rather than rote learning, students are more likely to understand and retain what they have learnt. Students must be involved in the process of thinking instead of simply accepting the end products of someone else's thoughts. The ability to think critically can be taught by asking the types of questions listed below:

- what do you notice/see/find?
- what differences do you ... ?
- what similarities do you ... ?
- which ones belong together? why?
- why don't these belong to this group ... ?
- what could have happened if ... ?
- what would ... be like if ... ?
- how would you ... ?
- what explanation would you give for ... ?
- is this always so?
- does evidence of ... change the original explanation?
- how can this be tested /checked?
- suppose ... what would happen?
- what makes you think this would happen?
- what would be needed for that to happen?
- is there a different explanation?
- if … happened, what would happen next?

Social Science enquiry skills

In Social Science students will continue to develop their skills in observing, classifying, recording and interpreting information. They should be involved in gathering information through observation of the local environment or asking questions about an issue. They may record information by filling questionnaires, taking notes or sketching the environment. Students sort and analyse this information and present it in different ways such as graphs, maps or tables or oral reports.

Comparing and contrasting skills

Students can compare and contrast ideas, values, information collected through discussions, oral presentations and writing. Students evaluate the ideas or information to suggest whether they are interesting, important, alarming or unusual in any way. Students can get a better idea by comparing their information with other information they have collected or contrasting it with what others have found out. They can make a summary of their findings.

Teaching and learning strategies for Social Science

Here are teaching and learning strategies which can be used to make learning more meaningful and interesting in Social Science. You should vary your lessons by using different teaching strategies making sure that the one you use for the lesson is suitable for your lesson outcomes. Many of these strategies work together, for example developing *consequence charts* during *class discussions* helps students make realistic *decisions*. All teachers in your school should develop a common understanding of the different teaching and learning strategies.

Analysing values

Values analysis involves the gathering, analysing, organisation and appraisal of facts in order to understand value positions held by individuals, groups or organisations regarding honesty in elections or a healthy environment for future generations. The process of values analysing can assist students to:

- identify values involved in an issue, situation or problem
- distinguish facts from interpretations of facts or opinions
- identify different kinds of bias in statements
- identify values implicit in laws or rules and their manner of enforcement
- give reasons based on evidence, for either accepting or rejecting particular values
- predict outcomes from given value positions.

Artefacts

Artefacts are objects made by humans. They can be from the past or present. By examining these students are able to gain an insight into the technology and lifestyles of people from particular cultural groups or times. Artefacts such as traditional artworks, musical instruments, cooking implements and weapons can be used in Social Science to look at change over time.

Brainstorming

This is a technique in which a class or group meets in order to record all the information already known on a topic, to develop new ideas or to stimulate creative thinking. Participants ‘let the ideas come into their heads’, write them down, sort them and decide which require further research. Brainstorming is a useful way of determining and activating prior knowledge of a topic such as reasons for families leaving their home or moving to a new place.

Charts

Helping students use charts to organise information in various groupings under different headings, is valuable. It not only helps them to make sense out of a previously unrelated mass of data, but it is a crucial step in the process of developing a store of concepts to use in making sense of their experiences. Charts (for example, on topics such as climate change) are a powerful teaching aid and of considerable help in getting students to think about information.

Clarifying values

Clarifying values is a reflective and sharing process in which values-related issues are discussed, or where values-related issues arise out of activities or situations in the classroom or the school such as importance of history or the past or use of resources. Questions assist us to become aware of our personal value positions regarding these issues and to explore the validity of these positions within a non-threatening environment. The process of values clarifying can assist us to:

- understand our own and others' values
- work through what may be confused values
- change or maintain our values in the light of new experience or
- enhance communication and personal relationships.

Class meetings

Class meetings provide an organised forum for students to contribute to decisions about class and school activities, for example, class rules.

- Consider possible ways of organising the class.
- Establish the ground rules and structures that will create workable and effective class meetings.
- Determine the roles within the class and during class meetings, e.g. chairperson, recorder.
- Agree on time limits for speakers.
- Encourage students to determine issues to be discussed within the established ground rules.
- Elect students to take on the roles of the class as determined.
- Explain what an agenda is and the need for one. Encourage students to list points for discussion on the agenda by displaying on a classroom wall:
  - introduction
  - purpose of meeting
  - possible topics ...
  - update from ... .
- Focus on the main purpose of the meeting as a way of bringing about change and not as a forum for complaints.

- Implement decisions that are reached. It is important that students know they have the power to bring about change.
- Include time for evaluation to see if decisions reached have solved problems or resolved issues.
- Encourage everyone to speak clearly and listen attentively. The use of prompt cards may be helpful here.

Classroom displays

A classroom display provides a way of focusing on the current unit. It stimulates learning, provides a record of learning as well as encouraging students to interact and to respond to learning. Information or current events, map of the school, maps, graphs and diagrammatic information on Papua New Guinea or other countries are examples of material suitable for classroom displays.

Consequence charts

A consequence chart is used to record what students believe to be the likely consequences of a decision or action. Charts can take different forms and enable students to explore cause and effect relationships, alternative consequences or the likely consequences of alternative actions or decisions. For example, the likely consequences of adopting modern clothing, food and music at the expense of Papuan New Guinean clothing, food and music or chopping down trees for firewood.

Cultural activities

Through participation in cultural activities, students are exposed to a variety of activities that give them insight into their own culture or that of others. Programming should take into account local cultural events as well as national events like independence celebrations which can be closely related to units 9.3 and 10.3

Current events

Current events, such as news events, issues and natural disasters are a valuable source of information.

It is recommended that some time be spent on a regular basis, discussing current events. This adds relevance, reality and immediacy to the school program and events which are part of the news and provide a valuable source for discussion and inquiry. Teachers and students should draw attention to current events and incidents that connect with the learning experiences and topics being studied. Students should be encouraged not only to describe the event but also to explain why it was selected, making connections between events and the issues being studied.

Current events of special significance cannot always be dealt with in the daily or weekly time-slot, nor can they always be incorporated into units. An important community, regional or national problem (tsunamis, floods), a major election, activities related to anniversaries (Mt Lamington), the coming

of the country to international importance (Sandline, OK Tedi) – any of these may require an intensive lessons using current materials and related background materials.

Whenever possible, relationships between the events presented in the media and units of study should be pointed out. Isolated items and incidents are soon forgotten, but events and issues related to basic studies become part of the student's growing background of concepts and knowledge.

Effort should be made to have students attain the highest levels of thinking and understanding. This involves not just the simple reporting of events, but discussion of the most interesting points and use of problem-solving and critical thinking skills to explore the significance of the event or issue.

It is essential that materials used in the study of current events and issues present differing points of view; that discussion includes many or all points of view; and that respect for the views of others is shown. Special attention should be given to background factors and possible consequences of activities.

A range of teaching strategies and activities which can be used in the study of current events (and issues) are described below.

- Make a 'Who's who in the news' board on which students post names, photos and articles of people related to units of study.
- Have students use the 5 W's and H to analyse and report news stories: Who? What? When? Where? Why? How?
- Make scrapbooks or notebooks that include events on a topic over a period of time to show how one event is related to others, how individuals and groups interact, how consequences flow from the decisions people make, and how changes are made in response to various conditions and demands.
- Analyse and evaluate news reports, editorials and letters to the editor to identify point of view, positions on issues, bias, stereotypes, and prejudice.
- Discuss newspaper articles in terms of these questions: How important is the event? Locally? Nationally? Internationally? What people are affected by it? How many? How important will it be in five years from now? Why?

Use these criteria to select events for specific study.

- Educational value – will students learn something significant? What contributions can be made to knowledge, skills and attitude outcomes?
- Appropriateness – is the topic appropriate in terms of the maturity of students? Is it appropriate in terms of community conditions and feelings?
- Relatedness – is it related to past and future learning? Can it be related to this unit?
- Available information – if needed, can background information be obtained? Are suitable teaching materials available?
- Available time – is there enough time to develop suitable understanding?
- Reliability – is accurate information available? Can facts be differentiated from opinions? Can any bias in the information be detected and analysed by students?
- Timelines – is up-to-date information available?

Debates

Debates are formalised discussions in which opposing points of view are advanced. These allow students to take a position on an issue (such as resettlement after natural disasters or logging) and justify that position, perceive other points of view and analyse relative strengths of arguments. There are several debating formats which can be utilised in a classroom.

- A round robin debate provides opportunity for each student to state a point of view and a supporting argument.
- Divide class members into two groups according to their chosen point of view. Each side alternately puts forward a persuading statement.
- Students adopt a point-of-view and develop supporting arguments. They present their arguments in a persuasive manner and counteract arguments in response to opposition.
- Parliamentary debate – in parliamentary debates there are two teams, (the affirmative and the negative team) of three speakers who take turns to debate a topic. The debate proceeds with alternate speakers from each team developing their arguments and rebutting the opposing team's arguments. This type of debate could be used in Unit 9.4 Civics and Citizenship.

Decision making

Decision making is the process of choosing from two or more alternatives. Decisions are best made after gathering information about the situation/event, considering the formation of possible alternatives before choosing between alternatives. Part of the process is the analysis and evaluation of the possible outcomes of the decision.

- Be aware of problems/situations in the class/community which require decisions to be made.
- Prepare role-plays or simulations when decision-making is involved.
- Be prepared to allow students to make decisions with unexpected outcomes.
- Use texts in media, literature, films, computer programs that involve making decisions.

Diagrams

Diagrams are employed by social scientists in a variety of situations. They may be used to illustrate outlines and features of an object. They can show how something complex works, for example, interrelationships among the different levels of government work. They can show the stages in the creation of a particular landform. The best diagrams are clear, with all the necessary details, and labels to identify features and explain processes.

Discussions

Discussions provide opportunities to express ideas and feelings and listen to others, to look at issues from other perspectives such as mining or logging as development or degradation of the environment. However it is not practical with more than 20 people. If class discussions are going to be used in a large class, the class should be divided into two or more groups.

Evaluation

Evaluation involves weighing options, consequences and evidence in decision-making contexts in order to make decisions and take action in just, caring and effective ways. The evaluation process often requires us to make decisions between values which are in apparent or real conflict.

Fieldwork

Fieldwork is an essential part of the study of Social Science. It is a means of understanding natural and cultural environments and the nature of inquiry. Fieldwork can enhance learning opportunities for a wide range of students because it caters for a variety of teaching and learning styles. Fieldwork enables students to:

- acquire knowledge about environments by observing, mapping and recording phenomena in the real world in a variety of places, including the school environs
- use different types of social science tools to assist in interpretation of and decision-making about phenomena
- understand the spatial and ecological dimensions of the environment
- explore processes that form and transform environments.

Flow charts

A flow chart is a diagram showing a series of step-by-step operations which make up a particular process. The main elements of the process are shown in picture form and are linked by arrows to indicate how one operation leads to the next, for example, the elements of the water cycle.

Guest speaker or visitor

A guest speaker or visitor is a person who is invited to share his/her knowledge and skills with the students. This may be a teacher from another class, a parent, a member of the local community or a representative from a group, organisation or institution.

Interviews

An interview involves asking someone questions in order to find out more information about a subject. In this way, students can learn about things and

peoples' opinions first hand. There are usually many people with special knowledge about a topic. Students can invite them to the classroom or meet them during fieldwork. To conduct an interview successfully students need to:

- prepare their questions beforehand
- make sure questions are simple and to the point and that they require more than a single word answer
- make sure they tell the interviewee their purpose and thank them at the end
- listen carefully to answers
- take notes if possible.

Investigating issues

Issues can be drawn from any field, e.g. society, economy, environment, beliefs and culture use of resource in developing and developed world. It must be stressed that the essence of an issue is that there are different, often opposing views, most of which are based on reason. Different opinions about an issue may be due to:

- conflicting value stances
- use of power
- humanitarian ethics
- benefits gained by different groups, e.g. resource development or conservation.

It is recommended that opportunities are provided for students to:

- discuss ideas, feelings and questions about activities regarded as right or wrong, good or bad
- examine the personal and community factors involved in defining beliefs about what is right or wrong, good or bad
- analyse how different contexts and situations influence personal values, attitudes, beliefs and behaviours
- critically analyse how groups justify particular actions and behaviours

Here are some examples of possible discussion questions.

- What would happen if … ?
- What is 'good' and 'bad' about …, 'right' and 'wrong' about ..., 'fair' and 'unfair', 'just' and 'unjust' about … ?
- What are the rights and responsibilities of …, duties and obligations of …?
- What are the laws and rules about … , the sanctions and punishments for … ?
- What should those with authority and power do about … ?

When investigating issues you may find it useful to use the following points to help students develop their knowledge and understanding of the issue.

- read or view the material dealing with the issue
- name and briefly outline the issue
- who are the main people involved in the issue?
- identify the scale at which the issue is relevant. is it a global, national, regional or local issue?
- describe or map the area where the issue is relevant
- list the main sources of information about the issue
- state whether the sources used present different points of view on the issue. If so, list them.
- state whether the sources of your information are reliable
- outline the actions people could take to address the issue. What would be the likely outcome?
- consider how the media has influenced your study of the issue
- explain how the study of the issue has affected your own views on the issue.

Jigsaw groups

Jigsaw groups are a method of organising students so that the whole class can conduct an in-depth study of a topic or issue within a relatively short period of time. Topics are analysed and broken down into discrete research tasks or activities, for example, each group is allocated a different aspect of one Pacific Island country to study and share the information collected. These tasks form the pieces of an information ‘jigsaw’. A group of students is allocated one of the jigsaw tasks to investigate. Each expert jigsaw group then reports the results of its findings back to the other groups, thus gradually building up a detailed and complete ‘picture’ of the topic.

Learning games

Learning games involve students in simulated experiences to develop concepts and understandings, record information or demonstrate knowledge and understandings. Learning games can be made by teachers or students.

Mapping

A map is a visual text that provides a symbolic representation of the Earth’s surface. Mapping involves processes of constructing, reading and interpreting maps. Map constructing is an effective way of organising, recording and communicating information. Map reading uses maps as a means of acquiring information. Map interpreting develops skills in locating information and applying this information to real situations.

It is important for students to develop a sense of place and space. Continual and frequent reference to maps and globes (e.g. through asking students to note directions, compute distances, locate places, and express relative location), explanation and use of scale and symbols, comparisons between different kinds of symbols, comparisons between different kinds of maps and drawing inferences from maps are all important.

Matrix

A matrix (or table) is a concise classification of numbers, words, or symbols assembled in a grid layout in order to facilitate analysis and predictions.

Mind maps/concept maps

A mind or concept map is a way of recording information. It allows students to organise their ideas either as a class, small group or individually. A mind map is often associated with brainstorming and is useful for drawing connections between ideas and concepts, assisting in the further research of a topic.

Models

Models provide demonstration of a concept in concrete form. Models can include items made from dough or clay, relief maps, mobiles, murals and dioramas.

Moral dilemmas

A moral dilemma depicts an apparent conflict between two or more courses of right action. The dilemma situation may be real or imaginary and should always be discussed in a supportive atmosphere. Moral dilemmas may be drawn from a range of student experiences, current social issues, stories or important events. The dilemma may be set in a past, present or future context — or a combination of these.

Oral history

An oral history provides a method of gathering data on a topic during a presentation by a speaker. The students listen, gathering information as an individual recounts life experiences, describing the events and/or traditions of the group(s) to which they belong. An oral history differs from an interview in that the person giving the oral history generally decides on the information that they wish to share with others. Their presentation may be more directed by the topic or an idea rather than student questions.

Photographs and pictures

Photographs and pictures are visual texts. They can be used to develop numerous skills, for example, observing, classifying, grouping, comparing and contrasting. Photographs allow for reinvestigation of first-hand experiences at a later date. They also clarify and stimulate further inquiry. Students can take/use photographs as a means of gathering and recording information. Computer technology enables photographs to be stored and reproduced in various ways. Pictures are an excellent way of documenting changes to culture and environment.

Picture presentations

Presentations are used to share information obtained through individual and group research and study. Presentations can be spoken, written or multimedia. They give students experience in organising, planning and presenting information and material to a particular audience and are therefore valuable experiences for both the presenter and the audience.

Problem solving

A particularly relevant teaching and learning strategy for Social Science topics is problem solving. Students of all ages can be involved in identifying and working towards solutions to problems. The classroom, school grounds, community and home all contain problems which are appropriate starting points for investigation by students.

The purpose of learning through the application of problem solving skills is to link conceptual understandings with practical experiences. It is important that students be given opportunities to apply problem solving techniques to a range of issues.

The teacher's role is to:

- assist students identify problems that are relevant and solvable
- organise learning that develops skills in problem solving
- choose learning activities which encourage responsible actions.

Questionnaires

A questionnaire is a set of questions aimed at getting the opinions of a number of people on a particular topic or issue. It can be left for people to fill out, or the questions may be asked directly in an interview situation. A questionnaire is really only useful if a large number of people take part.

Reflective learning

Reflection is the act of thinking about what has been learnt. It often involves putting learning into a new context, looking at the experiences in a new light, interpreting what has been said or done for different applications or a new situation. You need to provide time both during and at the end of any learning experience for students to contemplate the content and processes in which they have engaged. This time needs to allow for individual, small group and whole class reflection. As a result of reflective learning students may develop flexibility and creativity.

Research

One of the best ways to learn about Social Science is to think of the questions you want answered or what you want to know and inquire about the things which interest you. This means doing your own research to find the answers. The same applies to your students.

There are a number of steps involved in doing research and the best results are achieved if students do things in the right order and ask the following questions.

Defining

- what do I want to find out?
- what is my purpose?
- what are the key words and ideas of this task?
- what do I need to do it?

Locating

- where can I find the information I need
- what do I already know?
- what do I still need to find out?

Selecting

- what information do I really need?
- what can I leave out?
- how relevant is the information I have found?
- how reliable is the information I have found?
- how will I record all the information?

Organising

- how can I best use this information?
- do I need to use all the information?
- how can I best combine information from different sources?

Presenting

- how can I present this information?
- with whom will I share this information?
- how does the audience affect my presentation?

Assessing

- what did I learn from all this?
- did I achieve what I set out to achieve?
- how did I go with each step of the information process?
- how did I go with presenting my information?
- where do I go from here?

Role-play

Role-play involves taking on and acting out roles of real or imaginary individuals in varied, non-threatening simulated situations in order to clarify values and develop empathy with other people. Role-play is possible with most topics in the study of issues or current affairs.

- Explain the role-play to the whole class so that they begin from a common understanding of the situation
- Cast beginning students with learners who are competent and relaxed. Acceptance of the role-play by some will give others more confidence.
- Avoid placing students in their usual life role as this can be self-defeating and will limit possible experiences for the students
- Be prepared to intervene where necessary
- Stop the drama after main behaviours and points have been observed
- Debrief role-play participants. This is an essential step as it helps players out of their roles. They must be disassociated from the role, both in their own eyes and the eyes of other students.

Simulation

Simulation means assuming roles according to specified rules and procedures. These can be role-plays or games. Simulation can also involve making working models to show how a process actually works.

Surveys

A survey is a method of gathering information for a specific purpose. It may take various forms, for example, traffic survey, values questionnaire or interview.

- Determine the purpose of the survey — what information do we need to obtain?
- Consider the form of survey most appropriate to gather the information needed on a topic/issue/problem.
- Be aware that if questions are used, they should be carefully formed to elicit the required information. Lower Secondary students should frame precise questions, perhaps discovering that responses to broad questions often confuse rather than clarify the purpose of the investigation.
- The need to trial a questionnaire could be explored, as well as bias in sampling methods
- Supervision, safety and student protection issues, need to be considered and discussed , for example, when conducting a traffic survey or surveying adults. Students should not survey adults other than their immediate family without teacher or parental supervision.

- Decide with students:
  - the purpose of the survey.
  - who/what will be surveyed.
  - how the information will be gathered, for example, by questioning, observing, individually by students, in jigsaw groups etc.
  - when and where the information will be obtained, for example, at home from parents, on an excursion, at recess in the playground, or in the classroom.
  - the collation and final format and presentation of the data
  - the appropriate language to use, such as vernacular.

Tables and graphs

Graphs are used to show how an item or items of information change over a given time.

Line graphs may take the form of a smooth curve or may consist of line segments that join places plotted on the graph. These are often used to show temperature patterns.

Bar graphs are used to show totals of information. This information can be shown for one item over a number of time periods, or for a number of items over one time period. The height of the bars indicates clearly the total of the information being shown. Bar graphs can also be used to compare totals of one or more items. These are often used to show rainfall patterns.

A circle or **pie graph** is an accurate way of showing how each item of data contributes to the complete picture. The 'slices' of the 'pie' are drawn proportionally in a clear, colourful way to show the percentages they represent. These are often used to show different economic activities people are engaged in or different groups of people in a population.

Climatic statistics can be more easily read and compared when presented in a **climate graph**. Rainfall is drawn at the bottom of the graph using bars to represent precipitation each month. Temperatures are represented by a line graph. Graphs can provide valuable information, but sometimes only a certain amount of information is required. This is where a **table** becomes a useful method for presenting data.

A **table** is also useful for organising information. Information in tables is usually presented in columns enclosed by a frame and including headings within the frame.

Task cards

Task cards are teacher-defined activities or pieces of research work presented in a written form and assigned to individual students or groups. They are a method of directed student learning. You can devise task cards to direct activities on an aspect of a topic.

Timelines and family trees

Timelines are important in the social sciences and they are a useful activity for students to undertake, because they help them develop a sense of time

and chronology, as well as help them realise that different concepts of time exist. Students can master the telling of time through the use of clock mock-ups, calendars, placing events in order of occurrence, and relating dates to their personal life experiences. Older students can be exposed to a more in-depth study of a past culture in order to increase their sense of historical chronology. They can be asked to make generalizations about time in terms of the development of social institutions, and then asked to apply their generalisations to new situations.

Values education

The word 'values' can have different meanings for different people but basically our Papua New Guinea values are the principles or ideals that guide our decisions and actions. We express our values in the way we think and act. Our values have developed as a result of all the influences which have affected us and guide our behaviour.

No educational activity is value free. You have a responsibility to impart to your students' Papua New Guinea moral, ethical, democratic, and educational values, such as:

- respect
- respect for life
- respect for reasoning
- fairness
- concern for the welfare of others
- respect for diversity
- peaceful resolution of conflict
- justice
- responsibility
- freedom
- honesty
- integrity
- ecological sustainability.

Particular values are essential to living with others. A range of values are essential to the rights and responsibilities of citizenship and these need to be developed through social education programmes.

The basic principle underlying social responsibility is that freedom in a democratic society carries with it certain obligations and responsibilities for individual members. Social responsibility is a very important idea and ideal because it suggests a direction for our thinking and our actions if we want to build a fair, just and accountable Papua New Guinean society.

Values reinforcement

Values reinforcement involves the class teacher in emphasising specific values within the class and school context. Such values should be consistently reinforced within the total school community. The process of values reinforcement can assist students to:

- acquire a set of standards for developing personal values
- understand and live by desirable community standards
- become more effective learners
- become more effective citizens.

Many strategies can be used to reinforce values, but both static and dynamic models are extremely important. Static models include such things as the school motto, personal conduct codes, democratic elections, characters from history and current affairs.

Dynamic models include people with whom children may interact, for example, parents, relatives, friends, teachers, special visitors, community service workers, club leaders and sporting personalities.

Assessing Social Science

Assessment is an important part of teaching and learning. It is used to:

- evaluate and improve teaching and learning
- report achievement
- provide feedback to students on their progress.

Assessment in Social Science measures students' achievements of the unit learning outcomes described in the syllabus. It is an ongoing process of identifying, gathering and interpreting information about students' achievement of the learning outcomes and should be integrated into the students' normal learning activities.

Assessment *for* learning

Assessment *for* learning is often called formative assessment and is assessment that gathers data and evidence about student learning during the learning process. It enables you to see where students are having problems and to give immediate feedback which will help your student learn better. It also helps you plan your program to make student learning, and your teaching more effective. Often it is informal and students can mark their own work or their friends. An example is a quick class quiz to see if students remember the important points of the previous lesson.

Assessment *of* learning

Assessment of learning is often called summative assessment. It is used to obtain evidence and data that shows how much learning has occurred, usually at the end of the term or unit. End of year examinations are examples of summative assessment. It is usually done for formal recording and reporting purposes.

Assessing Social Science units

In the Social Science Syllabus, the unit outcomes, which link to the broad learning outcomes, are assessed through specified assessment tasks using a range of assessment methods. Assessment criteria for each unit outcome provide clear indications of how, and to what extent, the achievement of the learning outcomes may be demonstrated. Performance standards, assessment criterion and marking guides help teachers with the marking process and ensure that assessment is consistent across schools.

During the course of each unit students must complete both the tasks specified in the content and the assessment tasks for the unit. You will expand each task and provide clear guidelines to students for how the task will be completed and how the criteria will be applied.

When you set a task make sure that:

- the requirements of the task are made as clear as possible to the student
- the assessment criteria and performance standards are provided to the student so that they know what it is that they have to do
- any sources or stimulus material used are clear and appropriate to the task
- achievement is measured in terms of more than one outcome
- instructions are clear and concise
- the language level is appropriate for the grade
- it does not contain gender, cultural or any other bias
- the performance standards are used and applied consistently
- materials and equipment needed are available to students
- adequate time is allowed for completion of the task.

Feedback

When you assess the task, remember that feedback will help the student understand why they received the result and how to do better next time.

Feedback should be:

- constructive so that students feel encouraged and motivated to improve
- timely so that students can use it for subsequent learning
- prompt so that students can remember what they did and thought at the time
- focused on achievement (not effort) – the work should be assessed, not the student
- specific to the unit learning outcomes so that assessment is clearly linked to learning.

Feedback can be:

- informal or indirect – such as verbal feedback in the classroom to the whole class, or person to person
- formal or direct – in writing, such as checklists or written commentary to individual student either in written or verbal form
- formative – given during the topic with the purpose of helping the student know how to improve
- summative – given at the end of the topic with the purpose of letting the students know what they have achieved.

Tests

A test is a formal and structured assessment of student achievement and progress which the teacher administers to the class.

Tests are an important aspect of the teaching and learning process if they are integrated into the regular class routine and not treated merely as a summative strategy. They allow students to monitor their progress and provide valuable information for you in planning further teaching and learning activities.

Tests assist student learning if they are clearly linked to the outcomes. Evidence has shown that several short tests are more effective for student progress than one long test. It is extremely important that tests are marked and that students are given feedback on their performance as soon as possible.

There are many different types of tests. Tests should be designed to find out about student knowledge of content and about the development of thinking processes and skills. Open questions provide more detailed information about student skills than a question to which there is only one answer.

Principles of designing classroom tests

Tests allow a wide variety of ways for students to demonstrate what they know and can do. Therefore:

- students need to understand the purpose and value of the test
- the test must assess intended outcomes
- clear directions must be given for each section of the test
- the questions should vary from simple to complex
- marks should be awarded for each section
- the question types (true/false, fill-in-the-blank, multiple choice, essay, matching) should be varied.

Tests should:

- be easy to read (and have space between questions to facilitate reading and writing)
- reflect an appropriate reading level
- involve a variety of tasks
- make allowance for students with special needs
- give students some choice in the questions they select
- vary the levels of questions to include gathering, processing and applying information
- provide sufficient time for all students to finish.

Who assesses?

Teacher assessment

Assessment is a continuous process. You should:

- always ask questions that are relevant to the outcomes and content
- use frequent formative tests or quizzes
- check understanding of the previous lesson at the beginning of the next lesson through questions or a short quiz
- mark or check the students' written exercises, class tests, homework activities regularly
- use appropriate assessment methods to assess the tasks.

Frequency of assessment

You should schedule the specified assessment tasks to fit in with the teaching of the content of the unit that is being assessed. Some assessment tasks might be programmed to be undertaken in the first few weeks of the unit, others at the end of the term. You should take care not to overload classes with assessment tasks towards the end of the term.

Judging student performance

Student achievement is recorded and reported against standards. You must use the performance standards provided in each unit of this Teacher Guide when making a decision about the achievement of your students in relation to the unit outcomes. The performance standards describe the level at which the student has to be working to achieve a particular standard or mark.

Students should always have access to a copy of assessment criteria and the performance standards so that they know what it is they have to know and be able to do to get a good mark in a particular task. The performance standards will help you in your marking and will help the student improve their performance in the future. They are useful when providing feedback to students as they explain what it is the student needs to do to improve.

Moderation

To ensure that you are interpreting the performance standards correctly when assessing your students, it is important to undertake subject moderation of student work within your school and with teachers of nearby schools.

To moderate student work, a common assessment task must be used and a marking scheme developed so that all students complete the same task under the same conditions, and all teachers use the same marking scheme. Teachers can then compare (moderate) the students' work and come to a common understanding of the performance standards and the requirements for a particular level of achievement.

Moderation enables you to be sure that your understanding of the required standards for levels of achievement is similar to the understanding of other teachers and that you are assessing students at the appropriate level.

Self assessment and peer assessment

Self and peer assessment helps students to understand more about how to learn. Students assess their own work (self assessment) or the work of others (peer assessment). Students should be provided with opportunities to assess their own learning (self assessment) and the learning of others (peer assessment) according to set criteria.

Self and peer assessment:

- continues the learning cycle by making assessment part of learning
- shows students their strengths and areas where they need to improve

- engages students actively in the assessment process
- enables students to be responsible for their learning
- helps students understand the assessment criteria and performance standards.

Managing assessment tasks for Social Science

Usually, the marking of assessment tasks is done by the teacher. To reduce the amount of work it is necessary to develop a strategic approach to assessment and develop efficiencies in marking.

In Social Science there are a number of assessment tasks that may be new to teachers and students. Below are suggestions on how to manage some of these tasks to minimise marking or presentation time.

Develop efficiency in marking:

Clarify assessment criteria. Plan the assessment task carefully, and ensure that all students are informed of the criteria before they begin. Discuss the assignment and its criteria in class, giving examples of what is required. Distribute a written copy of the instructions and the criteria, or put them on the board. Making the assessment criteria explicit, speeds marking and simplifies feedback.

Supply guidelines on what is required for the task: This reduces the amount of time wasted evaluating student work that is irrelevant**.**

Use attachment sheets such as marking guides: An assignment attachment sheet which is returned with the assessed work rates aspects of the task with a brief comment. Such a system enables each student's work to be marked systematically and quickly. This strategy can be applied to assignments and projects.

Assess in class: Use class time to carry out and to assess tasks. Oral presentations and multiple choice tests marked by the teacher enables instant developmental evaluation and feedback. On-the-spot assessments on projects or practical work take less time to mark, and are useful, because they give immediate feedback on student progress.

Feedback to the whole class: Feedback to the whole class can cut down on the amount of individual feedback required. On returning assessed work, emphasise the criteria for judging the work, discuss the characteristics of good and bad answers, and highlight common strengths and weaknesses.

Set group-work alternatives: Assess one report per group. The student's mark is the group mark, but may include a component based on the contribution of the individual. A strategy for allocating an individual mark includes each member of the group using criteria to evaluate the relative contributions of individuals, with the marks averaged for the individual.

Set clear deadlines: Set aside a time for marking. Be careful about extending this period through the submission of late work.

Shift the responsibility

Introduce self and peer assessment: Develop in students the skills to evaluate their own work and that of their peers. Help students use the assessment criteria, performance standards and marking guides against which work is judged. Self-assessment increases the amount of feedback students get. It can supplement teacher assessment.

Treat each task differently

Every piece of work need not be evaluated to the same degree; a mark need not be the outcome in every case; and every piece of student work need not contribute to the final grade. Assessment is designed to enhance the teaching and learning experience for the teacher and the learner, not just to accredit students.

Use observation sheets and spotlighting

You might record student achievement while observing your students by using observation sheets. The most common observation sheets are individual student checklists and whole class grids. They can be used for all the projects that students undertake.

Spotlighting uses individual student checklists. This method can be used to focus on a few selected aspects of student performance or outcomes. It is best to focus on five to six students and at a time, systematically working through the class over time. Focused questioning is a technique often used in conjunction with spotlighting. With focused questioning you can gain a deeper awareness as to whether or not students understand the concept being taught.

Portfolios

Portfolios provide evidence for judgments of student achievement in a range of contexts. This means that the portfolio has a clear purpose that is linked to the unit learning outcomes. It must contain a specific collection of student work or evidence. This collection of work should provide a fair, valid and informative picture of the student's accomplishments. It should contain evidence of the work the student has done for the project.

How to minimise marking times of portfolios:

- specify the pieces of work and keep the number low
- mark as you go: ask that one of the pieces of work be completed at the end of week 3 and mark it then. Do not leave the assessment of the whole portfolio until the end of term
- use self-assessment: the student can self assess some of the work.

The portfolio does not have to be a folder or binder; it can be in the form of an exercise book with the student marking the pages they want to have marked as part of their portfolio.

Reports

Reports are an authentic form of assessment. They encourage students to develop observation and recording skills, and require organisational skills in both collecting and analysing information and communicating information clearly.

Reports in Social Science can be oral, written or in graphic form or a mixture of these. Duration of reports vary according to the task. Reporting in groups is a common strategy used in big classes however each student should be allowed a turn at reporting during the year.

Managing individual and group presentations

Group and individual oral presentations and report backs can be very time consuming both in their use of valuable lesson time and in marking. Too often these presentations are repetitive and boring and the rest of the class is not required to be actively involved in listening and responding to the presentations.

The best approach is to allocate or allow students to choose from a variety of topics; to develop clear criteria for presentations; and to require the rest of the class (audience) to take notes, identify key points or write a summary to enhance their learning. Make sure individuals and groups have access to a fair share of adequate resources to complete the task.

For individual presentations select two or three students to present at the beginning of each lesson over several weeks rather than using 4–5 lessons in a row just listening to speeches.

A number of strategies can be used to manage group presentations.

Assign each group a different topic or part of a topic to avoid repetition (for example the jigsaw approach). If the activity is essential learning then give all groups the same topic but ask each group to report back on one aspect of the topic only. Don’t allocate the report back section until all groups have completed the task. For example, groups pin their work sheets on the wall and you highlight one item on each sheet and ask the group to describe or explain that item.

Rather than reporting back, all groups display their work and then students are required to read and answer questions on work from groups other than their own. If group work is a regular activity make sure all students have a turn at reporting back, and at different group roles.

Discuss the criteria for the presentation with the whole class before the activity to make sure everyone is clear about what they have to do. This includes specifying the relative importance of the content as well as presentation skills such as speaking clearly and engaging the audience.

For both individual and group presentations limit speeches to 2–3 minutes and don’t allow students to go over time. Organising and presenting material in a limited time is an important skill for students to develop.

Peer assessment is an ideal strategy for marking group and individual presentations, provided you use the task criteria to develop clear marking guides or checklists. Peer assessment is also a way of ensuring that the audience is actively listening to the presentation.

Planning and programming units

The main purpose of planning and programming is to help you to arrange the presentation of the unit in an organised manner. This will help you to know what to teach and when to teach it. It is strongly recommended that you plan with the other teachers who teach the same grade. By planning together, you will **all** have better lessons and make better use of your limited resources.

Points to consider when programming

- Which outcomes are students working towards?
- What is the purpose of this unit/topic/learning experience?
- Which learning experiences will assist students to develop their knowledge and understandings, skills, and values and attitudes in the subject?
- What are the indicators of student learning that you would expect to observe?
- Do the assessment methods address the outcomes and enhance the learning?
- How can the learning experiences be sequenced?
- How do the learning experiences in the unit relate to students' existing knowledge and skills?
- How are individual learning needs to be catered for?
- What are the literacy demands of this unit/learning experience?
- What authentic links can be made with the content of other subjects?
- How can school events and practices be incorporated into the program?
- How can the assessment be part of the teaching and learning program?

Remember that Social Science units can be taught in any order except for unit 9.1.

The planning process

In this teacher guide, ideas for programming and organising each unit have been provided. These have been arranged in steps to help you teach the unit. The steps follow the thinking processes involved in the outcomes-based approach.

Step 1 – Interpreting the unit learning outcomes

The first step is to read the unit description in the syllabus and then study the unit learning outcomes to determine what students will know and be able to do by the end of the unit.

You need to look at the action verb, concept and context of each learning outcome. This will help you see what skills and knowledge are embedded in the outcome. Remember the unit learning outcomes link to the broad learning outcomes.

This teacher guide gives you a brief description of the main requirements of each learning outcome.

Step 2 – Planning for assessment

It is necessary to study the assessment requirements of the unit early in your planning to ensure that you teach the content and skills students need to achieve the unit learning outcomes.

The assessment tasks are described in the syllabus. They indicate what specific knowledge and skills students will need to demonstrate that they have achieved the unit learning outcomes.

You will have to decide when to schedule the assessment tasks to allow yourself time to teach the required content and time for students to develop the necessary skills. You will also need time to mark the task and provide feedback. Practical tasks may, for example, be broken into a series of stages that are marked over several weeks as students progress with making their product. It is not appropriate to leave all the assessment until the end of the unit.

This Teacher Guide provides the performance standards which you must use when you are marking the tasks. This is to ensure consistency with marks awarded to students in all schools in Papua New Guinea. However you must develop clear and detailed instructions for completing the task yourself and ensure all students know exactly what they have to do.

Step 3 – Programming a learning sequence

This step requires you to develop a program outlining a sequence of topics and the amount of time spent on each topic. You may follow the topics in the order they are listed in the syllabus or you may cover the topics through integrated activities or a thematic approach. If the unit involves a project for example, you may plan to teach some theory at appropriate stages during the project, rather than teaching all the theory before the students start the project.

To develop your program you need to study the topics listed in the syllabus and to think about the learning activities that will best provide students with the opportunity to learn the content and practice the appropriate skills, and how long the activities will take. You will have to think about some major activities that last several weeks and smaller activities that may be completed in a single lesson.

This teacher guide provides a sample program for each unit. It does not provide individual lesson plans.

Step 4 – Elaboration of content and activities

Once you have mapped out your program for the term you must then develop more detailed plans for each topic in the unit. All units require students to be actively engaged in learning, not just copying from the board. Make sure you develop a range of activities that suit all learning needs – some reading and writing, some speaking and listening, some observing and doing.

Browse through the text books and teaching resources you have access to and list chapters, pages or items that you will use for each topic in your program**.** The text books should also provide you with ideas for activities related to the topic. You may have to collect or develop some resources for yourself. The current textbooks are useful but ensure that you find and use the latest statistics and other information that is up to date.

Once you have sorted out your ideas and information you can then develop your more detailed weekly program and daily lesson plans.

This teacher guide gives examples in each unit of some activities you might like to use to ensure active learning. It also gives background information on some of the content.

Social Science requirements

Social Science has four core units in Grade 9 which students must complete. Three of these units have extensions which are available for students who complete the core before 10 weeks. You can change or replace these extensions.

There are three core units in Grade 10 which students must complete. Two of the units have extensions. An option is provided in the syllabus for students to study during the first 3 weeks of term 4 if they want to. Suggested activities in this option unit may be useful in other units.

Grade	Length (weeks)	Term	Unit	Resources
9	10	1	9.1 Places in the Pacific region *Extension: Climate and its effects*	Maps, atlases, blank maps, current text books and others like telephone directory. Visits to local area.
	10	2 or 3 or 4	9.2 Population change, resources and migration *Extension: Land, law and people in PNG*	News articles from newspapers, magazines, etc Current student textbooks.
	10	2 or 3 or 4	9.3 Investigating Papua New Guinea history	Evidence such as artefacts, museums, community people, stories, war relics, cultural sites, videos/films.
	10	2 or 3 or 4	9.4 Civics and Citizenship *Extension: Comparative study of systems of government*	Current student textbooks, newspapers, material from Electoral Commission and NGOs such as Transparency International.

Grade	Length (weeks)	Term	Unit	Resources
10	10	1 or 2 or 3	10.1 Resource development and management	News articles on resource development and management, information from resources companies and government departments. Current student textbooks.
	10	1 or 2 or 3	10.2 Environment change, pollution and solutions *Extension: Global environmental change*	News articles, information from government departments, NGOs etc. Current student textbooks.
	10	1 or 2 or 3	10.3 Papua New Guinea and the global community *Extension: International relationships in action*	Use everyday examples of interest to teenagers for example, music, food, clothes. Current student textbooks.
			Option: Think globally, act locally	This unit is available for use as needed by the students.

You must collect news articles and use current events at the time of teaching. For remote schools, current events should be happenings of the year of teaching. Current student textbooks are still useful but teachers must ensure that they are not passing outdated information and/or data. Government departments and statutory or other organisations are useful sources of information. For example, the telephone directory has information on natural disasters and other important issues of the moment like elections in the 2006 directory. You should build up your resources over time.

Guide to planning and programming individual units

Unit 9.1 Places in the Pacific Region

Step 1: Interpreting the unit learning outcomes

These unit learning outcomes link to the broad learning outcomes 1, 3 and 5.

Outcome 9.1.1: Students can demonstrate a range of mapping skills

This outcome requires you to teach mapping skills such as latitude and longitude, direction, scale and to provide opportunities for students to apply those skills in locating and interpreting maps of places in the Pacific and creating local environment maps.

Outcome 9.1.2: Students can apply geographic skills to understand the physical surroundings they live in

This outcome requires you to teach geographic skills of mapping, diagrams, graphing and sketching and to provide opportunities for students to apply these skills in understanding their physical environment.

Outcome 9.1.3: Students can demonstrate an understanding of physical characteristics of places in the Pacific

This outcome requires you to provide information about physical characteristics of places in the Pacific, that is, landform, climate, vegetation, population, land use including changes over time and to provide opportunities for students to collect and interpret information for themselves.

Step 2: Planning for assessment

The assessment requirements of the unit tell you what specific knowledge and skills students will need to demonstrate they have achieved the learning outcomes.

Assessment task one is a mapping test which seeks evidence that students can apply mapping skills, specifically latitude and longitude; use scales to calculate distance; and correctly label maps. During the course of the unit you will have to make sure students are taught these skills and that they apply them to different topics. Sample questions are included at the end of this unit.

For assessment task two students must use maps, sketches, diagrams and graphs to describe the physical characteristics of a region in a Pacific country that contrasts with their local environment. This means that highlands students who live in a temperate area would study a region in a Pacific country with a tropical climate such a region in Fiji or Vanuatu. Islands students who live in a tropical area would study a region in a Pacific country such as New Zealand or Japan that has a temperate climate.

Part of this task requires students to present information collected through a field trip or outdoor activities in the local area in the form of maps, diagrams, sketches and graphs. They also have to collect information about a region in another Pacific country that contrasts with their local area and present that

information in a similar way. This means that you will have to provide students with examples of appropriate maps etc and teach them how to create and present their own. Because the physical features of a region include landform, climate, vegetation and land use, you can break the assessment task into sections that students hand in at the completion of each topic. *(See programming example)*

Assessment tasks need clear instructions to help your students meet the criteria; to help you mark consistently; and to help students see the relative importance of different components of the task.

Example of clear task instructions

For example, Social Science: 9.1 – using maps, sketches, diagrams and graphs describe the physical characteristics of two contrasting environments.

Observe the local environment and using maps, sketches, diagrams and graphs describe the physical characteristics (such as climate, landform, vegetation and land use) of our local environment. You are also required to describe people's use of the local environment and how this has changed over time.

You must also research and describe the physical characteristics of one region of a Pacific country that contrasts with our local environment. For example, this is a temperate climate so you will have to describe a tropical region in a Pacific country such as Fiji or Vanuatu. (or this is a tropical area so you will to describe a region in Pacific country such as New Zealand or Japan that has a temperate climate).

Example of a marking guide

For example, Social Science: 9.1 – using maps, sketches, diagrams and graphs describe the physical characteristics of two contrasting environments (70 marks)

Description of a contrasting Pacific region such as: *(15 marks)*

- *landform*
- *vegetation*
- *climate*
- *land use*

Description of local environment such as: *(15 marks)*

- *landform*
- *vegetation*
- *climate*
- *land use*

Described people's use of the local environment which: *(20 marks)*

- *covered a range of people's use of the environment*
- *gave examples of positive ways*
- *gave examples of negative ways*
- *used maps, sketches, diagrams, graphs*

Accurate and clear use of: *(20 marks)*

- *maps*
- *diagrams*
- *sketches*
- *graphs*

Performance standards

You must use these performance standards when marking assessment task 2. Students should have access to a copy of them.

Assessment task 2 **Total marks – 70**

Using maps, sketches, diagrams and graphs describe the physical characteristics of:

- one Pacific region that contrasts with the local environment
- the local environment (based on field trip observations or outdoor activities)

Assessment criteria	Very High Achievement	High Achievement	Satisfactory Achievement	Low Achievement
15 marks Identify and describe physical characteristics of one Pacific region	14–15 marks All physical characteristics of the Pacific region clearly and accurately located, identified and described using appropriate geographic skills All of the examples are relevant to the Pacific country	11–13 marks Most physical characteristics of the Pacific region accurately located, identified and described using geographic skills Most of the examples are relevant to the Pacific country	7–10 marks Some physical characteristics of the Pacific region located, identified and described accurately Examples used are relevant	0–6 marks Few or none of the physical characteristics of Pacific region located, identified or several are inaccurately described Evidence and examples are not given or not relevant
15 marks Identify and describe characteristics of the local environment	14–15 marks All characteristics of local environment clearly and accurately located, identified and described using appropriate geographic skills All of the characteristics relevant to the local environment are up to date	11–13 marks Most characteristics of local environment accurately located, identified and described using appropriate geographic skills Examples of characteristics are relevant	7–10 marks Some characteristics of local environment located identified and described using geographic skills Examples of characteristics are relevant	0–6 marks Few or none of the characteristics of local environment located, identified or described Evidence and examples of characteristics are not given or not relevant
20 marks Describe people's use of the local environment	18–20 marks A wide range of people's use of the local environment described as well as effects on the environment over time in both positive and negative ways explained using appropriate geographic skills	14–17 marks A range of people's use of the local environment described and effects on the environment over time explained using geographic skills	10–13 marks Use of the local environment described using geographic skills	0–9 marks Use of the local environment described with insufficient detail or poor use of geographic skills
20 marks Report information through maps, sketches, diagrams, and graphs	18–20 marks All information is reported clearly and accurately through using appropriate and relevant maps, sketches, diagrams and graphs	14–17 marks Most information is reported clearly and accurately through using relevant maps, sketches, diagrams and graphs	10–13 marks Some information is reported clearly and accurately most of the time through using relevant maps, sketches, diagrams and graphs	0–9 marks Reported information is inaccurate or unclear most of the time Maps, sketches diagrams and/or graphs used are not appropriate

Formative assessment during the term will allow students to self-assess and peer-assess and subsequently make improvements to their tasks which will be marked for summative assessment by you at the end of term or where otherwise indicated.

Step 3: Programming a learning sequence

In this unit, students learn about Papua New Guinea's place in relation to the Pacific. They locate places, calculate distance and learn about how the land was formed and how it is forming. They learn about climate and how it affects vegetation in the Pacific region. Students should be involved in outdoor activities.

Two sample programs are provided, a sequential and an integrated program.

Sample 1: Sequential program

(Based on order of topics listed in syllabus.)

A major activity in this unit for students is a case study of a region in a Pacific country that contrasts with their own environment.

Topics	Suggested activities	Assessment
Week 1– 2 Places in the Pacific Countries of the Pacific	Atlas work – mapping activities: - locate places on a map - calculate distance - tell direction - using key describe physical characteristics Make and use a compass	
Week 3 – 4 Shaping the land	Interpret and create diagrams of land shaping and land building factors	Assessment task 1 – mapping test (one lesson)
Weeks 5–6 Climate regions of the Pacific	Interpret and draw temperature and rainfall graphs for tropical and temperate Pacific locations. Record temperature and rainfall for a period of time and draw climate graphs	Week 6 – rainfall and temperature graphs for local area and selected case study region can be self or peer assessed as formative assessment against performance standards Begin Assessment task 2
Weeks 7–8 Vegetation and climate	Tropical and temperate vegetation Field trip – explore the local environment on foot and sketch maps of natural and introduced vegetation	You could mark sketch maps of the local environment. You could also provide feedback on information about change/s to the local environment.
Weeks 9–10 Land use in the Pacific and local area	Research and compare local land use in the local area and another country Draw and interpret comparative land use maps, graphs or diagrams	Complete assessment task 2 - in week 9 you could mark climate graphs of the local area and case study region. - In week 10 you could mark the rest of their work, for example, diagrams

Sample 2: Integrated program

Topics	Suggested activities	Assessment
Week 1– 2 Mapping skills – revision	Mapping activities	Formative assessment – students self-assess using the mapping performance standards
Week 3 – 4 Shaping the land	Interpret and create diagrams Field trip	Assessment task 1 – mapping test Week 4 – annotated diagram of local landforms and landforms in selected case study region
Weeks 5–7 Tropical regions in the Pacific	Interpret and draw temperature and rainfall graphs Brainstorm different types of land use Research land use	Begin Assessment task Week 6 – rainfall and temperature graphs for local area and selected case study region
Weeks 8 – 10 Temperate regions in the Pacific	Interpret and draw temperature and rainfall graphs Task cards on research land use	Week 8 – map/diagram of vegetation zones for local area and selected case study region Week 10 – table or pie graph of land use for local area and selected case study region Complete Assessment task 2
Resources Temperature and rainfall figures, weather maps, blank maps and activity sheets, local street maps, telephone directory, pictures, newspaper clippings about natural disasters or weather events.		

Once you have completed your unit plan you will have to consider each topic in more detail. For example, if you have allocated two weeks for a topic that means you have ten lessons available (five lessons per week). You will have to develop a plan for each topic that includes in more detail what you will cover in each lesson. Your topic plan must include a sequence of student activities and teaching points that contribute to the overall achievement of the unit outcomes. Your topic plan should include what you think your students will do in each lesson, but you must remember that the individual lessons must flow logically, one from the previous and must be adjusted according to how students are progressing through the topic. You may develop outcomes for the topic and for each lesson, but these must be related to the unit outcomes.

For example

Topic: Places in the Pacific (Weeks 1–2)				
Lesson 1 Revise what students know already about the Pacific – where it is, what area does it cover? examples of countries, etc. Work with a wall map Game: groups finding countries, etc	*Lesson 2* Do mapping exercises on telling direction in the Pacific region – what is the direction of x *from* or *to* y? – students devise questions on telling direction, work out the answer and ask another student	*Lesson 3* - in pairs work out the latitude and longitude reading for the school - use atlases to find out latitude and longitude readings for different Pacific locations, features - Game: finding locations, physical features	*Lesson 4* - Exercises on calculating distance using the scale (numeric and description)	*Lesson 5* Make a compass (refer to pages 40-41 and try it out
Lesson 6 Begin to draw a map of the school	*Lesson 7* Complete map of school	*Lesson 8* Review physical characteristics of PNG and compare with other Pacific countries. Draw maps or diagrams or graphs	*Lesson 9* Continue activities from lesson 8	*Lesson 10* Continue and complete activities from lesson 8 and 9

Step 4: Elaboration of content and activities

Students will need:

- practice drawing diagrams, for example, showing latitude and longitude, weathering, erosion, deposition, stages in creation of landforms
- sketch practice, for example, landscape and aerial views of effects of natural disasters, man-made changes, and seasonal differences
- graph practice such as temperature, rainfall and climatic graphs and charts, bar graphs, symbolic or pictographs, pie graphs, for example, showing land use, resources such as fishing catches or environmental changes over time.

A major activity will be to develop a scale or picture map of your local area marking in all the different landforms and land use patterns, for example, garden areas, forest, grassland, swamp, tidal, coastal as well as change over time and relative location of the local environment with a map of Papua New Guinea.

Fieldwork/Excursions

Fieldwork is an essential part of the study of Social Science. It is a means of understanding natural and cultural environments and the nature of inquiry. Fieldwork can enhance learning opportunities for a wide range of students because it caters for a variety of teaching and learning styles.

Fieldwork is most effective if it is carefully planned and students are prepared with worksheets or questions to guide their observations and investigations. Students can be directly involved in this process through class discussion to develop the worksheet before the field trip or excursion. While in the field students should be applying Social Science skills such as writing descriptive paragraphs, drawing sketches, diagrams, flow charts, or entering data into tables to record their observations.

For formal assessment students could be asked to write a report based on their observations and the guiding questions, or hand in their completed worksheets or field notes.

Some more suggested activities suitable for this unit

- Make a compass and use.
- Work out the longitude and latitude readings for your school.
- Draw a map of the classroom or sports oval and work out an appropriate scale.
- Draw a map of the school to scale e.g. the school sign board. You might like to work with a computing class.
- Compare climate graphs from tropical and temperate regions.
- Discuss the effects of climate.
- Explore the local area on foot and map natural and introduced vegetation.
- Create annotated scale or picture maps of the local environment.
- Brainstorm the different types of land use in the local area.
- Research land use in another country, including change over time and land use.
- Draw comparative maps, graphs or diagrams to present findings on land use.
- The case study region could be used as a point of comparison throughout the unit or students could research it separately to ensure they met the assessment criteria for assessment task 2.

Making a compass to use on field trips

Make a simple compass to find magnetic north or south, depending on where you live.

Equipment

- A sewing needle, one inch (3cm) long.
- Small bar magnet. Refrigerator magnets may work if you don’t have a bar magnet.
- A small glass or cup of water to float the cork and needle.

Safety

Needles are sharp therefore be careful when using them.

Making the compass

1. Your compass will work better if you first run a magnet over the needle a few times, always in the same direction. This action 'magnetizes' it to some extent. Drive the needle through a piece of cork. Cork from wine bottles works well. Cut off a small circle from one end of the cork, and drive the needle through it, from one end of the circle to the other, instead of through the exact middle – be careful not to prick yourself!
2. Float the cork and needle in your cup of water so the floating needle lies roughly parallel to the surface of the water.
3. Place your 'compass' on a still surface and watch what happens. The needle should come to point towards the nearest magnetic pole – north or south as the case may be.
4. If you want to experiment further, try placing a magnet near your compass and watch what happens. How close/far does can the magnet be to cause any effect?

Explanation

The earth produces a magnetic field. This field, although weak, is sufficient to align iron and other paramagnetic compounds such as your needle within it. By floating the needle on the cork, you let it rotate freely so it can orient itself within the earth's magnetic field, to point toward the north or south poles of the planet.

Sample test questions

Question 1

A plane flies in a south-easterly direction for about 2 300km from Port Moresby and lands in the capital of a Melanesian country. What is the name of the country? (Answer–Vanuatu)

or

A plane flies in a south-easterly direction from Port Moresby and lands at Efate. How far has it flown? (Answer– 2300 kilometres)

Question 2

Why are latitude and longitude useful?

Question 3

Which climate graph describes the temperature and rainfall of a place in a temperate region? (4 climate graphs to be provided by teacher, or use ones in an atlas or resource books)

Question 4

Draw a climate graph for the following temperature and rainfall statistics:

	J	F	M	A	M	J	J	A	S	O	N	D
Temperature(°C)	29	28	29	29	27	26	25	26	28	29	30	29
Rainfall (mm)	391	330	260	103	14	3	1	2	13	50	126	243

Use an appropriate scale and label the graph correctly.

Question 5

Match photographs with the places located on a map. Map of the Pacific region with places marked as J, K and L. Three photographs of either vegetation, physical feature or climate graph are presented. Students match the photograph with the location (either J, K and L)

Question 6

Select a country you have studied. Write a short description of the main land forms of the country. Briefly describe its climate and vegetation and list five ways in which the land is used.

9.2 Population Change, Resources and Migration

Step 1: Interpreting the unit learning outcomes

These unit learning outcomes link to the broad learning outcomes 1, 2, 4 and 6.

Outcome 9.2.1: Students can demonstrate an understanding of population change and its impact on the environment

This outcome requires you to teach causes and effects of population change, provide basic factual information about people and resources and how they impact on the environment, and provide opportunities for students to gather and interpret information. You will also need to teach demographic terms such as birth rate, death rate, population density and distribution and life expectancy.

Outcome 9.2.2: Students can describe the social issues caused by population change.

This outcome requires you to provide opportunities for students to gather and interpret information about social issues caused by population change in Papua New Guinea and the world from a variety of sources. Students should be given the opportunity to relate causes and effects of population change to social issues.

Outcome 9.2.3: Students can demonstrate graphing and mapping skills.

This outcome requires you to teach mapping and graphing skills and how to interpret maps and graphs as a way of understanding population change, resource distribution and migration and the resulting social issues. You must provide opportunities for students to practice constructing and interpreting maps, graphs and diagrams about social issues caused by population change.

Step 2: Planning for assessment

The assessment requirements of the unit tell you what specific knowledge and skills students will need to demonstrate they have achieved the learning outcomes.

Assessment task one is a test where students interpret population statistics.

This task is seeking evidence that students can interpret population statistics in graphs, tables, population pyramids and population density maps. Students should also demonstrate their understanding of demographic terms with descriptions or definitions and examples.

Assessment task two requires students to make an oral presentation on population change or migration and its causes and effects in either a global context or a local context.

This task is seeking evidence that students can name and describe factors that cause changes in the population locally (Papua New Guinea) or globally, describe characteristics and features of population affected by change and/or migration either locally (Papua New Guinea) or globally and

to communicate the information gathered and analysed to an audience clearly.

Oral presentations

Oral presentations involve students in presenting information and ideas to you and peers. The work presented could be to explain a concept or theory, the results of independent research, a summary of an article or in response to a question supplied by the teacher. Presentations can be done individually, in pairs or groups.

When setting an oral task it is essential for students to be clear about what is expected of them when preparing and making the presentation. This means that you need to make some decisions including:

- Do you want students to work on the same or different topics?
- Are the presentations to be individual, pairs, or groups? If groups, limit the size to between four and six since larger groups can be unworkable.
- How much time is allowed – per group, per individual?
- Is a question and answer session to be included. If so, what are the conditions for the session?
- Will the groups be self forming or formed by you?
- Will the assessment include an element of peer appraisal and if so what weighting will this get in the marking?
- What marking scheme will be used and given to the students? This means being clear about the purpose of the task in relation to the learning outcome/s being assessed.

Performance standards

You must use these performance standards when marking assessment task 2. Students should have access to a copy of them.

Assessment task 2				**Total marks – 60**
Oral presentation on population change or migration and its causes and effects in either a global context or a local context				
Criteria	**Very High Achievement**	**High Achievement**	**Satisfactory Achievement**	**Low Achievement**
20 marks Demonstrate an understanding of factors which cause population change	**18–20 marks** Demonstrated confidently through oral presentation their understanding of most factors which cause population change	**14–17 marks** Demonstrated confidently through oral presentation their understanding of many factors which cause population change	**10–13 marks** Demonstrated through oral presentation their understanding of some factors which cause population change	**0–9 marks** Demonstrated little understanding of factors which cause population change
25 marks Describe impact of population change or migration	**22–25 marks** Described with both positive and negative examples impact of population change and migration	**18–21 marks** Described impacts of population change and migration with one specific example for population change and one for migration	**12–17 marks** Described some impacts of population change or migration with one example	**0–11 marks** Identified an example of either population change or migration but limited or no details of impact described
15 marks Communicate information clearly	**14–15 marks** All information reported clearly and accurately Oral presentation is easy to listen to and easy to understand with appropriate visual aids such as maps, posters, charts	**11–13 marks** Most information reported clearly and accurately Oral presentation is mostly easy to listen to and understand with some appropriate visual aids such as maps, posters, charts	**7–10 marks** Some information reported clearly and accurately Oral presentation can be understood with one or two appropriate visual aids such as maps, posters, charts used	**0–6 marks** Reported information is inaccurate or unclear most of the time Oral presentation hard to follow. No visual aids used, or visual aids inappropriate

Sample marking guide

The sample marking guide below shows the main purpose of the task is to assess students' understanding of subject content and to organise and

present information for a specific purpose. That is, **what** is said has greater importance than **how** it is said.

You can use this marking guide for assessment task on oral presentation.

Assessment criteria		Marks
Demonstrate an understanding of factors which cause population change	• Accuracy of information such as improved health, education services and infrastructure, migration, war • examples of countries given • charts or other visual forms used	**/20**
Describe impact of population change or migration	• relevance of information such as increases or decreases in population • impacts like health and law and order problems, increase in squatter settlements, more money for improving services or provision of services • migration and its impacts like on cultural identity • respond to audience questions (if required)	**/20** **/5**
Communicate information clearly	• use of time – prepared and ready to begin when called upon to do so – completed on time • use of visual and other aids effectively – maps, poster or charts were easy to understand – aids were displayed for audience to see – language used was appropriate • communication with audience – voice projected clear and loud enough for audience – was understood clearly by audience – used language that was understood by audience	/3 /6 /6 **/15**

Step 3: Programming a learning sequence

In this unit students will learn about the relationship that exists between people and resources. They learn basic information about population, resources and migration. Students are challenged to develop strategies to address problems such as rapid population increase and unequal distribution of resources.

Topics	Suggested Activities	Assessment
Weeks 1–2 Where people live and why	Analyse newspaper or other media articles on issues affecting PNG or other countries such as population growth, migration, land use, law and order Interpret and construct population statistics, e.g. graphs, tables, population pyramids and population density maps	
Weeks 3–4 Population change	Research on population Discuss and explain effects of population changes	Assessment task 1 (one lesson)
Weeks 5–6 People on the move	Analyse media articles Research Survey the school community e.g. students, teachers and families to find out where they have come from, whether temporary or permanent, etc	Formative assessment on presentation could involve using part of the performance standards to develop understanding on how they will be assessed in coming weeks
Weeks 7–8 Local population patterns	Survey Field trip/visit to local planning offices	Assessment task 2 (allow time for individual or group presentations)
Weeks 9–10 Pull of the city	Retell stories of local experiences Debate rural-urban migration	
Resources News articles from local radio stations, newspapers, television, internet, etc. NDOE, (1999) Papua New Guinea Secondary School Atlas, Oxford, Melbourne Website for Population Reference Bureau <www.prb.org>		

Step 4: Elaboration of content and activities

Suggested activities

- Draw and compare population graphs and population pyramids of some countries of the world e.g. developed, developing, Pacific, etc**.**
- Find out and retell stories of how the local people came to settle in the place where the school is and the impact on the environment and the local environment. Students may share stories about their own people – clan, tribe or family.
- Research an example of forced migration as part of a case study.
- Plan and carry out a survey of local area or squatter settlement, village, station or town.
- Collect information from the statistical office or provinces to find out where people have come from and why, changes to population, access to services, levels of employment, changes to employment over time, etc.
- Visit or write to NSO or provincial government planning section regarding population trends, planning for province or invite someone or write to NSO or provincial offices for information.
- Outline ways to attract people to return or stay in rural areas. Could be a debate.

9.3 Investigating Papua New Guinea History

Step 1: Interpreting the unit learning outcomes

These unit learning outcomes link to the broad learning outcomes 1, 2 and 5.

Outcome 9.3.1: Students can investigate aspects of Papua New Guinea's past from a range of historical sources and communicate findings from investigations in oral and written forms

This outcome requires you to teach students how to find out about history using a range of different sources, not just history books. This means you will have to teach about the different primary and secondary sources that students can use and how to draw conclusions about aspects of Papua New Guinea's past using local evidence such as artefacts, stories or war cemeteries. You will need to revise effective presentation strategies both oral and written to help students present their findings. You must provide opportunities for students to visit local historical sites, collect evidence such as artefacts or interview or listen to people who can retell their stories and compare with secondary sources.

Outcome 9.3.2: Students can identify the social forces that have shaped and continue to shape Papua New Guinea and its neighbours

This outcome requires you to teach students about the social forces which have influenced Papua New Guinea and its neighbours including discovery, exploration, colonisation, conflict (world wars), missionaries and traders, education, infrastructure development etc and the manifestations of these social forces today. You must provide opportunities for students to discuss and share views about these social forces supported by evidence they discover.

Outcome 9.3.3: Students can explain the relations between people and events through time.

This outcome requires you to teach about the effect of past events on people and how the people's responses to events change the society or environment over time. You must provide opportunities for students to explain relations between people and events through time using cause and effect and supported by evidence.

Step 2: Planning for assessment

The assessment requirements of the unit tell you what specific knowledge and skills students will need to demonstrate they have achieved the learning outcomes.

Assessment task one is a test with short answer questions. This task is seeking evidence that students can name/list examples of social forces that have and continue to impact on people's lives and use cause and effect to explain the relationship between people and events.

Assessment task two is an historical investigations portfolio. Students investigate a local historical event, place or person. They must use local sources to uncover what happened in the past. You will have to mark the

task in stages, for example, mark the plan in the first or second week the task is commenced. Provide feedback on the evidence they are collecting and mark it. You may provide feedback on their draft reports before they submit the final report for marking.

This task is seeking evidence that students can:

- display planning skills in planning an historical investigation
- use information gathering skills such as asking questions, developing questionnaires, taking notes, making summaries, recording traditional and historical knowledge on tape, for example songs, interviews
- give examples of the different sources of information and use the information in their investigations
- use skills in collecting information, analysing it for most appropriate bits to the questions posed and organisation skills for clarity, accuracy, purpose to audience
- give examples of the relationship between people and events through the time studied in this unit
- define historical terms and concepts such as history, change, primary and secondary sources, evidence, oral histories, artefacts and give examples.

Performance standards

You must use these performance standards when marking assessment task 2. Students should have access to a copy of them.

Assessment task 2 **Historical investigations portfolio**				**Total marks – 60**
Criteria	**Very High Achievement 50–60 marks**	**High Achievement**	**Satisfactory Achievement**	**Low Achievement**
20 marks plan and conduct investigations using appropriate information gathering strategies and sources	**18–20 marks** planned thoroughly and conducted investigations using a wide range of information gathering strategies and sources	**14–17 marks** planned and conducted investigations using a range of information gathering strategies and sources	**10–13 marks** planned and conducted investigations using some information gathering strategies and sources	**0–9 marks** investigations lacked planning and only one or two information gathering strategies or sources were used
20 marks analyse and organise information in response to the historical questions posed by the investigation	18–20 marks analysed accurately and organised information clearly in response to the historical questions posed by the investigation	**14–17 marks** analysed and organised information in response to the historical questions posed by the investigation	**10–13 marks** analysed or organised information in response to the historical questions posed by the investigation	**0–9 marks** analysis or organisation of information lacked detail and accuracy in response to the historical questions posed by the investigation

Criteria	Very High Achievement 50–60 marks	High Achievement	Satisfactory Achievement	Low Achievement
10 marks explain the relationship between people and events through time	**9–10 marks** explained in detail the relationship between people and events through time using a wide range of relevant examples	**7–8 marks** explained the relationship between people and events through time with many examples	**5–6 marks** briefly explained the relationship between people and events through time with one or two examples	**0–4 marks** explanation of relationship between people and events through time lacked accuracy or inappropriate examples used
10 marks use historical terms and concepts in appropriate contexts	**9–10 marks** used historical terms and concepts accurately in appropriate contexts all the time	**7–8 marks** used historical terms and concepts in appropriate contexts most of the time	**5–6 marks** used historical terms and concepts in appropriate contexts some of the time	**0–4 marks** historical terms and concepts used inaccurately or inappropriately

Here are some things to consider when marking the historical investigation portfolio:

The portfolio should contain:

- an investigation plan containing the information identified below
- examples of information collected or used
- the investigation report.

The student's plan for their historical investigation should show:

- types of activities they will undertake
- time frame/deadline for activities
- a list of possible information gathering strategies to be used.

Examples of information collected or used such as:

- questionnaire and analysis of the information
- notes and summaries of information taken from books, interviews
- pictures, photographs, recordings of songs.

The student's report of the investigation should:

- describe the site/event/person/issue being investigated
- provide an analysis of the information collected/compiled
- respond to the question/s posed supported with evidence
- use historical concepts and terms
- contain conclusion/s drawn or summarise findings.

Step 3: Programming a learning sequence

In this unit students learn about the social changes that shaped their country's history and the Pacific. They examine different types of historical evidence in learning about the changes that happened in Papua New Guinea and people's interpretations of those events. Students examine primary and secondary sources to investigate and analyse the past, understand the present and use this knowledge to predict the future. They learn and apply historical concepts, skills and methods.

Topics	Activities	Assessment
Week 1–2 Introduction What is history? Why do we study history? How do historians investigate the past?	Do the detective activity. Explain the portfolio requirements	
Weeks 3–5 Tingim bek The far distant past	Artefact study, oral histories and recorded history Investigate archaeological sites	Portfolio for assessment task 2 commenced. Week 5 Assessment task 1 – test (one lesson – 20 marks)
Weeks 6–7 The world comes to PNG - evidence - reasons for and reactions to exploration and settlement	Site studies, oral history and recorded history Use artefacts to investigate past events	Evidence for portfolio collected. Week 7 Assessment task 1 – test (one lesson – 20 marks)
Weeks 8–10 World Wars in PNG	Site studies, oral history and recorded history Use artefacts to investigate World Wars in PNG	Week 10 – Assessment task 2 Portfolio completed and handed in
Resources Locally available resources such as museums, artefacts, community people, buildings, stories, etc		

Step 4: Elaboration of content and activities

Introduction

Begin with a 'detective' activity. Collect things from around the school such as books, empty fish tins, banana leaf, food packaging, bits of cloth, etc. You must have enough 'things' for each group in your class. Give each group 4–5 things. Students imagine they are in the future, say 100 years, and reconstruct what life is like now in your local community/place.

Assist students to identify their source of evidence and type of evidence they used to describe current life in the future.

Tingim bek

These topics can be taught using a variety of evidence-based activities as suggested in the syllabus (page 27). The type of activity will depend on what is available locally; however, students should be given the opportunity to experience working with a variety of sources.

This topic is ideal for artefact study, oral history and recorded history as well as archaeological sites.

Artefacts: Bring an artefact to class or study a photograph of an artefact you are familiar with. Discuss these questions:

- What does the artefact tell us about life in the past? What was the artefact used for?
- What do the materials it's made of tell us about resources people used?

Recorded history: View a documentary film. Find out who made the film and why it was made. Who is the target audience? Whose point of view is depicted/presented and why? Whose views are not catered for and some possible reasons?

Oral history: If possible, interview old people and record their recollections about life as they were growing up or people who retell stories their parents told them.

- What did they do, for example, usual activities or special events?
- What were some major historical events they lived through?
- How is their view affected by their personal experiences?

Students use different types of evidence from these different sources to describe the past.

The world comes to Papua New Guinea

This topic can be studied through recorded history, site studies, artefacts and oral history. Discuss similar questions that have been asked in the previous topic.

Recorded history: View a documentary film; read information or study pictures and photographs in books.

- Who made the film/wrote the book and why/ its purpose.
- Who is the target audience?
- Whose point of view is depicted/presented and why?
- Whose views are not catered for and some possible reasons?

Site study: visit buildings of historical significance, a museum or an archaeological site

- Why is the site important and to whom?
- What was it used for?
- What is it used for now?

Artefacts: artefacts, replicas, drawings or photographs of artefacts can be used.

- What does the artefact tell us about life in the past? What was the artefact used for?

- What do the materials it's made of tell us about resources people used?
- What did people do, that is, everyday activities and special occasions?
- What were some major historical events they lived through?
- How are people's view affected by their personal experiences?

Oral history: listen to stories told by parents or grandparents which have been passed on through generations about life during this period, for example, about missionaries and traders.

Students use different types of evidence from these different sources to describe the past during this period.

World Wars in Papua New Guinea

This topic can be studied through site studies, oral history, recorded history and artefact study. Some questions from the previous topic maybe useful.

Site study: visit buildings of historical significance e.g. Gunan Tabu (Queen Emma), a museum, e.g. the National Museum in Port Moresby or the museum in Goroka or national monuments.

Oral history: Interview parents or grandparents or even community members who were alive then or can tell stories they heard or were told.

Recorded history: View a documentary film set during the war or shot during the wars; read information or study pictures and photographs in books.

Artefacts: artefacts, replicas, drawings or photographs of artefacts can be used.

Students use different types of evidence from these different sources to describe the period during these world wars.

9.4 Civics and Citizenship

Step 1: Interpreting the unit learning outcomes

These unit learning outcomes link to the broad learning outcomes 2, 4, 5 and 6.

Outcome 9.4.1: Students can apply social science skills to make sound or informed decisions.

This outcome requires you to teach social science skills of role playing; research; collecting, recording and evaluating information; identifying evidence, bias and gaps in points of view; comparing and contrasting; debating; decision making; communication; and giving opportunities for students to apply these skills to make sound or informed decisions.

Outcome 9.4.2: Students can demonstrate an understanding of political systems of Papua New Guinea.

This outcome requires you to teach strategies to enable students to show by example aspects of Papua New Guinea's political and legal structures and systems, including describing origins, forms and elements of democracy; to consider ethics, civic rights and responsibilities, effects of corruption, nepotism and power relationships; and applying learning to relevant local situations/organisations.

Step 2: Planning for assessment

The assessment requirements of the unit tell you what specific knowledge and skills students will need to demonstrate they have achieved the learning outcomes.

There are two choices of tasks in assessment task 1. Students can either conduct a mock campaign and election or organise a mock parliament and hold a debate on an issue. Half the class could do one task and the other half could do the other.

If students choose to organise a mock parliament and hold a debate on an issue they should be able to explain some processes and procedures of parliament; research aspects of an issue; identifying evidence, bias and gaps in points of view, compare and contrast, present an informed view in a debate; follow an agreed debating procedure; communicate with clear voice, appropriate emphasis, gestures and timing; work in a group to organise a mock parliamentary debate.

If they choose to conduct a mock campaign and election, you will be seeking evidence that students can work in small groups to:

- collaboratively plan, organise and conduct a mock campaign and election
- research, explain and implement election procedures
- create ethical and transparent political party or independent policies
- design and create print and other publicity and voting materials
- nominate others for and agree to undertake roles

- secretly vote along with whole class, count votes and declare the winner according to LPV (limited preferential voting)
- share responsibilities and respect decisions.

These two options are big tasks that will have to be marked in stages. For the mock campaign and election activity, mark the plans first then their organisation of the election could be next. As they do each bit of activity such as conduct campaigns, register to vote and set up voting day these can be marked. Assist students by providing feedback on things such as voting forms.

Performance standards

You must use these performance standards when marking the assessment tasks. Students should have access to a copy of them.

Assessment task 1				**Total marks – 70**
Choice 1: Students conduct a mock campaign and election				
Assessment criteria	**Very High Achievement**	**High Achievement**	**Satisfactory Achievement**	**Low Achievement**
25 marks In groups, plan, organise and conduct an election	**22–25 marks** Cooperative and helpful and demonstrated initiative in planning, organising and conducting an ethical election	**17–21marks** Cooperative and helpful in planning, organising and conducting an ethical election	**12–16 marks** Planned, organised and conducted an ethical election	**0–11 marks** Limited planning or organisation in helping to conduct a mock election
20 marks Demonstrate understanding of electoral procedures	**18–20 marks** Demonstrated extensive understanding of electoral procedures	**14–17 marks** Demonstrated understanding of most electoral procedures	**10–13 marks** Demonstrated understanding of some electoral procedures	**0–9 marks** Demonstrated limited understanding of electoral procedures
5 marks Communicate information in a variety of ways	**5 marks** Effectively communicated information verbally, in writing and visual design for a mock election	**4 marks** Effectively communicated information verbally, in writing or visual design for a mock election	**2–3 marks** Communicated information verbally, in writing or visual design for a mock election	**0–1 marks** Communicated information in ineffective ways for a mock election

Assessment criteria	Very High Achievement	High Achievement	Satisfactory Achievement	Low Achievement
20 marks	**18–20 marks**	**14–17 marks**	**10–13 marks**	**0–9 marks**
Participate in the mock election campaign	Participated in the mock election campaign including planning, undertaking role/s, helping and encouraging others	Participated in the mock election campaign including planning, undertaking role/s, helping others	Participated in the mock election campaign including planning, undertaking role/s	Little or no participation in mock election campaign after teacher encouragement or reminders

Sample marking guide for the 'Mock Campaign and Election' activity.	
Assessment criteria	**Mark**
In groups, plan, organise and conduct an election • plan should show – order and time of activities including deadlines – tasks for individual members where the election will be conducted – set up of the room – process for collecting, counting and recording votes • organisation and preparation for the election will include: – preparation of writs and nomination forms – notice of election – register voters – physical preparation of voting room – preparation of ballot papers – preparation of voting booths – making ballot boxes – preparation of tally sheets • conduct the election – check off voters against list of registered voters – oversee voting – collect ballot boxes – count votes and tally them – declare winner	/5 /10 /10 **Total /25**
Demonstrate understanding of electoral procedures through • registering to vote • attending campaign rallies • voting • knowledge of limited preferential voting (LPV) • rules and ethics of enrolling to vote, campaigning, voting, counting votes and declaring winners	**/20**
Communicate information in a variety of ways • message is clear and concise (e.g. date, time and venue of election) • language used is appropriate for audience • feedback sought and acted upon (e.g. improving a ballot form)	**/5**
Participate in the mock election campaign • plan campaign • organise campaign • undertake campaign activities – write campaign speeches – develop campaign posters – hold a campaign rally – distribute 'how to vote' leaflets • after election evaluate success of campaign – reflect on strategies and what to do differently next time	**/20**

You may adapt this to develop a marking guide for the parliament debate.

Assessment task 1				**Total marks – 70**
Choice 2: Students organise a mock parliament and hold a debate on an issue				
Assessment criteria	**Very High Achievement**	**High Achievement**	**Satisfactory Achievement**	**Low Achievement**
20 marks Demonstrate an understanding of the processes and procedures of parliament	**18–20 marks** Demonstrated confidently through role play their understanding of many processes and procedures of parliament	**14–17 marks** Demonstrated confidently through role play their understanding of processes and procedures of parliament	**10–13 marks** Demonstrated through role play their understanding of some processes and procedures of parliament	**0–9 marks** Demonstrated little understanding of processes and procedures of parliament
20 marks use informed arguments to debate an issue	**18–20 marks** Researched aspects of an issue; compared or contrasted, identified evidence, bias or gaps in points of view Convincingly presented an informed view in a debate Followed an agreed debating procedure all of the time	**14–17 marks** Researched aspects of an issue; compared or contrasted, identified evidence but not bias or gaps in points of view Confidently presented an informed view in a debate with some impact Followed an agreed debating procedure most of the time	**10–13 marks** Researched aspects of an issue; compared or contrasted, with little evidence Presented a view in a debate Followed an agreed debating procedure some of the time	**0–9 marks** Insufficient detail in research Limited or no use of evidence to support argument Rarely followed an agreed debating procedure most of the time
15 marks Communicate information in a variety of ways	**14–15 marks** Contributed and negotiated informed and workable ideas for setting up a mock parliament Debated with clear voice, appropriate emphasis, gestures and timing all of the time	**11–13 marks** Contributed and negotiated some workable ideas for setting up a mock parliament Debated with clear voice, appropriate emphasis, gestures and timing most of the time	**7–10 marks** Contributed or negotiated ideas for setting up a mock parliament Debated with clear voice, appropriate emphasis, gestures or timing some of the time	**0–6 marks** Did not usefully contribute or negotiate ideas for setting up a mock parliament Did not debate with clear voice, appropriate emphasis, gestures or timing most of the time
15 marks Participate in the mock parliament sessions	**14–15 marks** Effectively and convincingly played a designated role in mock parliament sessions	**11–13 marks** Effectively played a designated role in mock parliament sessions	**7–10 marks** Played a designated role in mock parliament sessions	**0–6 marks** Did not fulfil requirements of designated role in mock parliament sessions

Assessment task two requires students to work in groups to develop a set of rules for an organisation outlining member rights and responsibilities.

This task is seeking evidence that students can explain why rules are needed and what happens if there are no rules. Students will demonstrate how they contributed to making ethical, transparent and practical rules; worked as a group member – sharing responsibilities, keeping records, chairing a session, speaking on behalf of the group, listening to others and communicating to make sound or informed decisions.

Examples of organisations for which students develop a set of rules could be: a church youth group, student representative council, performance group, school social club, disaster relief group, clan group or a particular sports group.

Assessment task 2				**Total marks – 30**
Group work: Develop a set of rules for an organisation outlining member rights and responsibilities				
Assessment criteria	**Very High Achievement**	**High Achievement**	**Satisfactory Achievement**	**Low Achievement**
15 marks Work in a group to develop a set of practical rules	**14–15 marks** Encouraged and enabled others whilst also positively contributing to "ethical and practical rules for an organisation	**11–13 marks** Positively contributed as a group member to making ethical rules for an organisation	**7–10 marks** Contributed as a group member to making practical group rules for an organisation	**0–6 marks** Contributed little to making rules for an organisation or wasted others' time as a group member
15 marks Explain the purpose of rules and how they protect the individual as well as the organisation as a whole	**14–15 marks** Explains by providing convincing and realistic reasons for particular rules in an organisation and how they protect the individual as well as the organisation as a whole	**11–13 marks** Explains by providing realistic reasons for particular rules are needed in an organisation to protect the individual as well as the organisation as a whole	**7–10 marks** Gives some valid reasons why a particular rule is needed in an organisation to protect the individual as well as the organisation as a whole	**0–6 marks** Limited descriptions of rules with little or no explanations

Sample marking guide for assessment task 2	
Work in a group to develop a set of practical rules Encouraged and enabled others whilst also positively contributing ethical and practical rules for an organisation - worked as a group member - shared responsibilities - kept records - chaired a session - spoke on behalf of the group - listened to others, showed sensitivity to the feelings of others - adapted, debated, negotiated, compromised - communicated to make sound or informed decisions - contributed to making of ethical, transparent and practical rules to achieve a goal	**15 marks**
Explain the purpose of rules and how they protect the individual as well as the organisation as a whole - explained why rules are needed with realistic reasons - explained what happens if there are no rules - explained how rules protect the individual as well as the organisation as a whole - listed and explained the roles of individuals and the organisation - listed and explained the responsibilities of individuals and the organisation	**15 marks**

Step 3: Programming a learning sequence

This unit focuses on roles, rights and responsibilities. Students learn to appreciate, promote and develop a positive approach to rules of society and can contribute to society and influence future change in a positive way. A major activity for students is either a mock campaign and election or a mock parliament and debate on an issue.

A detailed sample program has been developed as a starting point which you can adapt for your students.

Topics	Activities	Assessment
Week 1–2 Independence	Case study research of one person, e.g. Michael Somare, John Guise, Albert Maori Kiki, Susan Karike Interview or listen to a guest speaker about their memories of this time in history and what has happened since Class debate on an issue such as: - There has been a lot of development in PNG since independence - Education should be a government priority - Regional governments should replace provincial governments - Provincial governments are too independent	Formative assessment could be a whole class debate on an issue Part of performance standards could be used for student self assessment
Weeks 3–4 Being a citizen	Small groups brainstorm rights and responsibilities Discuss the importance of voting in a democratic society View, read and practise filling in enrolment forms and other election related forms	Formative assessment would involve using the 'mock election' performance standards to develop understanding on how they will be assessed in coming weeks
Week 5 Being a leader	Describe desired qualities of elected and other leaders in the school, community and country	
Weeks 6–7 Government	In groups research and analyse, using graphs, government spending and priorities. Compare provincial priorities and needs with national directions Prepare for and conduct a mock campaign and election or parliament and debate. Use or adapt suggestion for 'mock election' teaching activity from elaboration of content and activities A 'mock parliament and debate' activity could be adapted from the 'mock campaign and election' activity	Summative assessment will be by peers when the 'mock election' or 'mock parliament and debate' activity has been completed
Weeks 8–9 Law and order	Small group brainstorm on purpose of rules, the processes involved in writing a set of rules for an organisation and examples of categories of rules, e.g.: constitution; nominating processes, etc Draw consequence charts on what might happen without rules Visit to courts and/or parliament house or provincial government office or listen to guest speakers talking about law and order	Formative assessment could involve student self-assessment, using the 'rule' performance standards, of their involvement in the class brainstorm and to prepare them for the next summative task
Week 10 Ethics	Small group role play activity on scenarios (for the whole class) of corruption, bribery, nepotism Students undertake in small groups the assessment task 2 activity	Summative assessment task 2 – Develop a set of rules for an organisation outlining member rights and responsibilities'
Resources Newspapers and other media Local community, national and provincial government departments Education materials, samples of voting forms and posters from the Electoral Commission Current textbooks TIPNG (Transparency International) anti corruption Materials		

Step 4: Elaboration content and activities

Limited preferential voting

Papua New Guineans must be registered on the electoral roll to vote or stand for elections.

All Papua New Guinean citizens who are qualified to vote must:

- be 18 years of age
- be of full capacity (that is, able to understand the voting process)
- have lived within the electorate for 6 months or more; and
- not be under the sentence of death or sentence of imprisonment for a period of more than 9 months; or
- not have, in the last 3 years, been convicted of an offence relating to elections prescribed by the Organic Law or an Act of Parliament to the purpose of Section 50 (1) (b) of the Constitution.

The Electoral Commission compiles voting rolls before each election.

Limited preferential voting is the new way to vote in National Elections.

You are now required to vote for your 1st, 2nd and 3rd choice by writing a number:

- 1 in the box beside the candidate who is your first choice
- 2 in the box beside the candidate who is your second choice
- 3 in the box beside the candidate who is your third choice.

Suggestion for mock campaign and election activity

A major activity is to hold a mock election. You need to be sure you have the background information about the elections and voting as well as resources for students to use. You will also have to decide on the activities the students will undertake and how they will be organised.

You should ensure the class has access to Electoral Commission materials, for example ballot papers, LPV information and any educational materials available.

Explain that students will be required to work in groups to collaboratively plan, organise then conduct a mock election campaign. This could involve the following steps but it could also be adapted.

Step 1: Students read and discuss the 'mock campaign and election performance standards' to ensure students are familiar with assessment criteria.

Step 2: Form groups of approximately 6–8 students. Choose or elect a chairperson and recorder for each group. Rotate these roles at regular intervals.

Step 3: Each group brainstorms a list of what could be required for

conducting a mock election.

Step 4: Each group uses 'jigsaw' research to explain to other group members: LPV explanation; issue of writs; counting procedures; campaign rules and ethics; political party requirements; rules applying to candidates.

Step 5: Each group could develop their 'party' policy and campaign strategies. Policies could be based on real student welfare needs or issues or education, health services, law and order – where should future government money be spent first and why?

Step 6: Group members nominate or are nominated and agree to undertake roles such as a 'candidate', 'Electoral Commission' officials, scrutineer, media campaign manager, speech writer, news report, TV ad writer or artist.

Step 7: 'Election Commission' officials from each group get together to create the ballot papers and ballot box.

Step 8: Group members seek and obtain help from each other to plan or undertake their tasks.

Step 9: Election campaign – each group takes turns to advertise and promote their party policies and candidate.

Step 10: Election – each class member votes in secret and 'Election Commission' officials count the votes using the LPV method, scrutineers observe at the vote and the count and the Commissioner (the teacher) declares the result.

Step 11: Students use the 'mock campaign and election' performance standards to assess their peers – summative assessment.

Other useful activities for this unit

- Discuss what has happened since independence, for example, the status of education, roads, economy, and communications.
- Establish clear rules for a class debate, for example, each students has one minute to express a view, with supporting evidence.
- Examples of government spending and priorities on health, education, infrastructure, management of country's resources, security – police and army. Compare provincial and national priorities.
- Small group brainstorm on setting up a formal group, e.g. constitution, goals or aims, membership, nominating processes, election processes, roles of officers, procedures, record keeping, terms of office, relevant dates, behaviour of members. Include discussion of what might happen without rules.
- Jigsaw groups could discuss sub-topics together with newspaper study and share findings with the class.

- Small group role play activity where a group acts out a scenario (for the whole class) of corruption, bribery, nepotism or mismanagement. The group then analyses who benefits, who loses, short and long term consequences. Act out the situation again showing how the situation can be solved ethically and benefit all stakeholders in the long term.

10.1 Resource Development and Management

Step 1: Interpreting the unit learning outcomes

These unit learning outcomes link to the broad learning outcomes 1, 3, 4 and 6.

Outcome 10.1.1: Students can compare and contrast renewable and non-renewable resources.

This outcome requires you to revise work done in Grade 7 and 8 to ensure students know the meaning of the terms renewable and non – renewable resources, and that they understand the concept of sustainability. You also need to ensure that students know how to compare (look at ways things are similar or different) and how to contrast (show how things are different or opposite).

Outcome 10.1.2: Students can describe and explain how people can manage resources in a sustainable way.

This outcome requires you to provide opportunities for students to gather information and examples about the sustainable use of resources from a variety of sources in their local area, in Papua New Guinea, and globally. Students should be given the opportunity to make comparisons with the way resources were used in the past and how resources are used now both in Papua New Guinea and globally.

Outcome 10.1.3: Students can examine and discuss government policies on natural resources in Papua New Guinea.

This outcome requires you to provide information about government policies on natural resources, or to ensure that the school library has sufficient resources for the student to find out about current government policies. You need to provide opportunities for students to apply their understanding of sustainability to the bigger picture of the importance of natural resources to the future of Papua New Guinea. It requires students to examine (inquire into) and discuss (identify issues and provide points for and/or against) the government policies.

Step 2: Planning for assessment

The assessment requirements of the unit tell you what specific knowledge and skills students will need to demonstrate they have achieved the learning outcomes.

Assessment task one is a test on renewable and non-renewable resources. This task is seeking evidence that students know the difference between renewable and non-renewable resources, that they can describe features of different types of resources, and that they know about conservation strategies used both in Papua New Guinea and globally. Students must be able to show that they understand, and give examples of a number of management strategies being used for both renewable and non-renewable resources in Papua New Guinea.

Assessment task two requires students to collect articles from newspapers, magazines or photocopied from books about a maximum of three *resource issues* both in Papua New Guinea and other countries in the world. You may have a range of articles for students to choose from.

You will first have to make sure students know how to identify issues. Students ensure that they note the sources of the articles, e.g. *Post Courier*, date, page no. or title and author of book, publisher and year of publication. Annotation means students have to *write* comments on the issues including their point of view or opinion on the issues. Students should provide a number of reasons or evidence to support their points of view and suggest appropriate solutions to the issues.

Performance standards

You must use these performance standards when marking assessment task 2. Students should have access to a copy of them.

Assessment task 2				**Total marks – 60**
Portfolio collection of articles about three resource issues in Papua New Guinea and the world. Students collect three articles about different issues and annotate them with comments on the issues, put forward their point of view in relation to them and suggest solutions.				
Criteria	**Very High Achievement**	**High Achievement**	**Satisfactory**	**Low achievement**
20 marks Demonstrate an understanding of the resource issues through their annotations	**18–20 marks** Describes major ideas/issues in three articles Explains who, what where, why and how the issues are important and how they relate to sustainability	**14–17 marks** Mentions major issues but does not explain relevance to sustainability Explains what the issue is and why issue is important	**10–13 marks** Explains the perspectives of the three articles on the resource issues	**0–9 marks** Mentions major issue but does not explain relevance or why issue is important OR No issues highlighted OR there is plagiarism
20 marks Put forward a reasoned point of view about the issues	**18–20 marks** Reasoned point of view put forward on three resource issues affecting PNG and the world. Explains why point of view has been adopted and how point of view relates to sustainability	**14–17 marks** Reasoned point of view put forward about at least two resource issues, and explains relevance for PNG and the world	**10–13 marks** Reasoned point of view put forward about one resource issue, and explains relevance for PNG or the world	**0–9 marks** No reasoned point of view put forward OR there is plagiarism
20 marks Suggest solutions to the problems of the issues	**18–20 marks** Appropriate sustainable short and long term solutions suggested for a range of issues highlighted in articles on both PNG and the world	**14–17 marks** Appropriate short or long term solutions suggested for the issues highlighted in articles on Papua New Guinea and the world	**10–13 marks** Appropriate solutions suggested for the issue highlighted in articles in Papua New Guinea and the world	**0–9 marks** Solutions suggested but not appropriate for the issue, or only one solution suggested OR No solutions suggested for issues

Step 3: Programming a learning sequence

Students learn about renewable and non-renewable resources and abuse of these due to rapid population increase. They learn about developing and managing resources in a sustainable way for now and future generations and how their own attitudes and the government's attitudes can impact on this. Articles about resource issues are important for this unit.

Topics	Suggested activities	Assessment
Weeks 1–4 Non-renewable resources Renewable resources	Establish current events time to share news about resource issues every lesson (refer to pages 9-10 for ideas on current events) Begin collecting articles from week 1. Collect and read news articles and reports on resources Identify the issue and annotate the articles (refer to elaboration of activities). Excursion to a factory or local production which uses either renewable or non-renewable resources Survey local area / community on conservation practices and their impact	Week 4 – Assessment task 1 – Test on resources (one lesson)
Week 5–8 People and the earth – resource use over time	View documentaries on resources and resource use and report back to class Group research different case study topics such as metals, oil, agriculture, water	Students work on assessment task 2. Students use the assessment performance standards for task 2 to self-assess their progress and to plan what more they need to complete or improve
Week 9–10 Government and resource management in Papua New Guinea	Brainstorm government policies on resource management Research government policies, make notes and share them with others Listen to people of different generations describing changing resource use and abuse and their ideas for sustainability Summarise the information	Finalise assessment task 2
Resources Newspapers, magazines, radio and television programs Blank maps and activity sheets NDOE, (1999) Papua New Guinea Secondary School Atlas, Oxford, Melbourne VCRs or DVDs programs on resource issues		

Step 4: Elaboration of content and activity

Sources of renewable and non-renewable energy

Energy resources can be described as renewable and non-renewable. Renewable energy sources are those which are continually being replaced such as energy from the sun (solar) and wind. If an energy resource is being used faster than it can be replaced (for example, coal takes millions of years to form) then it will eventually run out. This is called a non-renewable energy source.

Renewable energy

Solar energy

Solar energy is light and heat energy from the sun. Solar cells convert sunlight into electrical energy. Thermal collectors convert sunlight into heat energy. Solar technologies are used in watches, calculators, water pumps, space satellites, for heating water, and supplying clean electricity to the power grid. There is enough solar radiation striking the surface of the earth to provide all of our energy needs.

Wind energy

Moving air turns the blades of large windmills or generators to make electricity, or to pump water out of the ground. A high wind speed is needed to power wind generators effectively. While wind generators don't produce any greenhouse gas emissions they may cause vibrations, noise and visual pollution.

Tidal energy and wave energy

If a dam or barrage is built across a river mouth or inlet, electricity can be obtained by the flow of water through turbines in the dam as the tide rises and falls. The movement of waves can also drive air turbines to make electricity. Although tidal and wave energy don't produce pollution, they can cause other environmental problems.

Biomass energy

Biomass is plant and animal material that can be used for energy. This includes using wood from trees, waste from other plants (for example, bagasse from sugar cane) and manure from livestock. Biomass can be used to generate electricity, light, heat, motion and fuel. Converting biomass energy into usable energy has many environmental benefits. It uses waste materials that are usually dumped, and uses up methane (a greenhouse gas). Fuels such as ethanol can be made from biomass and used as an alternative to petrol to power motor cars.

Hydro-electric energy

Fast-flowing water released from dams in mountainous areas can turn water turbines to produce electricity. While it doesn't cause pollution, there are many other environmental impacts to consider. Ecosystems may be destroyed, cultural sites may be flooded and sometimes people need to be

resettled. There are also impacts on fish breeding, loss of wildlife habitat and changes in water flow of rivers.

Geothermal energy

Geothermal energy uses heat energy from beneath the surface of the earth. Some of this heat finds its way to the surface in the form of hot springs or geysers. Other schemes tap the heat energy by pumping water through hot dry rocks several kilometres beneath the earth's surface. Geothermal energy is used for the generation of electricity and for space and water heating in a small number of countries.

Non-renewable energy

Coal

Coal is a fossil fuel formed over millions of years from decomposing plants. Coal is mainly burned in power stations to make electricity and as a source of heat for industry. When coal is burned it produces large amounts of carbon dioxide, one of the gases responsible for the enhanced greenhouse effect (the increase in the world's temperature due to the increased insulating effect of the earth's atmosphere).

Petroleum

Petroleum, or crude oil, is formed in a similar way to coal. But instead of becoming a rock, it became a liquid trapped between layers of rocks. It can be made into gas, petrol, kerosene, diesel fuel, oils and bitumen. These products are used in houses for heating and cooking and in factories as a source of heat energy. They are also used in power stations and to provide fuel for transport. However their use, especially petrol and diesel, produces large amounts of carbon dioxide emissions. It also produces other poisonous gases that may harm the environment and people's health. Another common use for petroleum is in producing petrochemicals such as plastics.

Gas

Gas is made in the same way as petroleum and is also trapped between layers of rock. Natural gas is tapped, compressed and piped into homes to be used in stoves and hot water systems. LPG (Liquefied Petroleum Gas) is made from crude oil. It is used for cooking and heating in homes, industrial heating in boilers, kilns and furnaces, and for camping. LPG can also be used as an alternative to petrol as an engine and transport fuel. Using LPG reduces greenhouse gas emissions from a vehicle by up to 20 per cent.

Nuclear energy

Nuclear energy is the energy released when atoms are either split or joined together. Mineral called uranium is needed for this process. Heat energy and steam produced can drive an electricity generator in a power station, or provide direct mechanical power in a ship or submarine. At each stage of the process various types of radioactive waste are produced. This waste is poisonous and can cause harm to people and the environment coming into contact with it.

Guidelines for studying an issue

An issue on resources is when there is a problem or conflict in relation to resources and sustainability or management of these resources.

The issues chosen should allow students to investigate:

- the different points of view of the country or peoples involved
- the range of alternative opinions and responses to the issue
- their own conclusions about the issue, and what their response should be.

Identifying an issue:

- what is the issue?
- what prompts interest in the issue?
- where is the issue located?
- when did the issue arise?
- who is involved in the issue?
- who has power in the issue?
- what might be the consequences of change?

How and why has the issue arisen?

Describe, analyse, and explain the issue by acquiring relevant information:

- what are the components of the issue?
- in what ways is time relevant to the issue?
- how did the issue arise?
- what problems, or conflicts, cause this to be an issue?
- how and why do individuals or groups of people have particular perceptions of, and associations with, the issue?
- What interests are represented by those involved?

What different decisions can be made about the issue? What would be the outcome in each case?

Consider possible decisions or outcomes and their most probable impacts:

- what different decisions and responses may be made?
- what would be the outcomes of each decision on sustainability or the environment?
- who finally decides?
- how has the issue been resolved, or how is it likely to be resolved?
- are there short term gains and long term losses (or vice versa)?

How should I decide and respond? How would I explain my response?

The student's personal evaluation and response:

- what are the possible or probable outcomes?
- what do I believe to be the preferable outcome?
- how are my views different from, or similar to, the views of other people?

- what response would be appropriate for me?
- how can I explain my response?

Annotating articles

To comment on articles that students find in newspapers or magazines they need to ask the questions; who? what? when? where? why? how? and make notes on the answers. They also need to present their own point of view about the issue and outline possible solutions to the problem. They could describe bias of the articles.

More ideas for activities

- Students should start collecting articles about resource issues at the beginning of the unit. You could help by having examples of articles that you have already collected from newspapers or magazines to show them. You could make notes from programs you have heard on the radio or seen on television (noting the date and source of the program). It is important as a Social Science teacher that you build up a file of resources and keep your file up to date.
- Brainstorm questions to ask a guest speaker or write to appropriate office for information.
- Invite a local politician to school to talk about government decisions, resource issues relating to Papua New Guinea, future directions of government.
- Debate government policies on resource use, conservation, etc.
- Collect examples of resources from the local environment.
- Use an atlas to map where major resources are located, the environmental impact in various parts of the world of misuse of resources and where natural resources are endangered.
- Students have to annotate the articles: Students should try to identify bias in articles which is more easily done if comparing two articles. They may need practice as a whole class in this.
- Visit the local rubbish dump or collect garbage to show examples on non-sustainable use of resources, especially petroleum based products such as plastics.
- Discuss changing use of land and development of agriculture in Papua New Guinea.
- Read and summarise information about the use of resources in different parts of the world such as the difference in the amount and type of resources used in developed countries compared to developing countries, how this has changed over time and why. Students can develop timelines in groups to show this information, and different groups could concentrate on different resources.
- Students are required to develop a timeline to show the development and use of resources. Group work is a good way to approach an activity like this. When group representatives share their learning, it reinforces their learning and memory.

10.2 Environment Change, Pollution and Solutions

Step 1: Interpreting the unit learning outcomes

These unit learning outcomes link to the broad learning outcomes 1, 3, 5 and 6.

Outcome 10.2.1: Students can identify, describe and explain the causes and effects of environmental changes.

This outcome requires you to teach about the causes and effects of environmental changes in Papua New Guinea and globally. You should provide opportunities for students to gather information and examples about the environmental changes caused by humans and nature, and the effects of these changes on the environment and people.

Outcome 10.2.2: Students can apply knowledge and skills to preserve and promote a sustainable environment for better living.

This outcome requires you to teach ways in which students, individuals, groups and governments can learn about, care for, prevent and repair damage to the environment for future generations, local and global. Students should be given the opportunity to apply these ideas at school or in the local community.

Outcome 10.2.3: Students can communicate ideas and information in a variety of ways.

This outcome requires you to teach skills and different techniques in presenting information for clarity and accuracy and provide opportunities for students to practice these skills and techniques.

Step 2: Planning for assessment

The assessment requirements of the unit tell you what specific knowledge and skills students will need to demonstrate they have achieved the learning outcomes.

For assessment task one students must produce charts or diagrams of cause and effect of climate or environmental change.

This task is seeking evidence that students can recognise and interpret diagrams, charts and photographs from texts. They need to be able to analyse information and data collected from texts or field trips so that they understand causes and effects, concepts and processes of short and long term changes to the climate and environment, local and/or global. Students will need practise in creating or adapting maps, graphs, charts and diagrams.

Performance standards and marking guide

You must use these performance standards when marking the assessment tasks. Students should have access to a copy of them.

Assessment task 1				**Total marks – 30**
Produce charts or diagrams of cause and effect of at least one example of environmental change				
Assessment criteria	**Very High Achievement**	**High Achievement**	**Satisfactory Achievement**	**Low Achievement**
30 marks Identify the cause of an environmental change Describe the effects of the environmental change	**25–30 marks** Identified accurately the main cause of an environmental change and described a wide range of effects of the environmental change Presented detailed information accurately in well constructed charts and diagrams	**20–24 marks** Identified the cause of an environmental change and described most of the effects of the environmental change Presented information accurately in a well constructed chart or diagram	**15–19 marks** Identified the cause of an environmental change and described some of the effects of the environmental change Presented some information in a chart or diagram	**0–14 marks** Cause of an environmental change incorrectly identified an and/or description of only one effect of the environmental change was inaccurate Little information presented in a poorly constructed chart or diagram

Assessment task two is a case study of conserving or preserving an environment.

This task is seeking evidence that students can give examples of causes and effects of changes to a particular case-study environment. They need to show that they can name and describe the characteristics and features of the chosen environment, make the relationships between things evident; explain why and/or how in relation to environment changes caused by humans and nature, and describe and explain the effects of the changes on the environment and people.

Case studies

A case study is an account, review or analysis of an activity, event or problem that contains a real or hypothetical situation and includes the issues experienced in the situation. A case study is a form of research assignment. Students collect and analyse information on a specific problem, issue, person, organisation, etc.

One approach to case studies is the problem-oriented method. In this approach a situation is analysed to identify the major problems that exist, the causes of and possible solutions to the problems, and finally, a recommendation as to the best solution to implement, for example environmental damage caused by the Ok Tedi mine.

In a problem-oriented case study – the student:

- describes the background to the situation explaining the position of individuals/organisations involved
- identifies the major underlying problems which have led to the situation

- discusses alternatives and how they might affect the people involved
- selects the best alternative(s), giving reasons
- makes practical and specific recommendations for implementing the selected solution.

Assessment task 2				**Total marks – 70**
Case study: Conserving or preserving an environment				
Assessment criteria	**Very High Achievement**	**High Achievement**	**Satisfactory Achievement**	**Low Achievement**
20 marks describe and explain the causes and effects of changes to a particular environment	**18–20 marks** described and explained accurately and clearly a range of causes and effects of changes to a particular environment	**14–17 marks** described and explained clearly causes and effects of changes to a particular environment	**10–13 marks** described and explained some causes and effects of changes to a particular environment	**0–9 marks** descriptions and explanations lacked understanding of cause and effect of changes to a particular environment
20 marks identify and explain a method of conserving or preserving the case-study environment	**18–20 marks** identified and explained clearly appropriate methods of conserving or preserving the case-study environment	**14–17 marks** identified and explained some methods of conserving or preserving the case-study environment	**10–13 marks** identified and briefly explained a method of conserving or preserving the case-study environment	**0–9 marks** identified or explained an inappropriate or inaccurate method of conserving or preserving the case-study environment
15 marks demonstrate an understanding of how plants and/or animals will benefit from conserving or preserving the case-study environment	**14–15 marks** demonstrated clearly with a range of examples an understanding of how plants and animals will benefit from conserving or preserving the environment	**11–13 marks** demonstrated an understanding with examples of how plants or animals will benefit from conserving or preserving the environment	**7–10 marks** demonstrated an understanding of how some plants or animals will benefit from conserving or preserving the environment	**0–6 marks** demonstrated limited understanding of how plants or animals will benefit from conserving or preserving the environment
15 marks use maps, diagrams or graphs to support their explanations	**14–15 marks** used a range of accurate maps, diagrams or graphs effectively to support their explanations	**11–13 marks** used maps, diagrams or graphs to support their explanations	**7–10 marks** used at least a map, diagram or graph to support their explanations	**0–6 marks** used none or an inappropriate map, diagram or graph

Sample marking guide for the case study	
Criteria	**Marks**
Describe and explain the causes and effects of changes to a particular environment - named and described the characteristics and features of the chosen environment - described and explained the causes of changes to that environment whether human or nature - explained the effects of changes to that environment - accurate description and explanation	20
Identify and explain a method of conserving or preserving the case-study environment - identified and described an appropriate method for conserving the environment - explained the method accurately - provided reasons for conserving the environment or - identified and described an appropriate method for preserving the environment - explained the method accurately - provided reasons for conserving the environment	20
Demonstrate an understanding of how plants and/or animals will benefit from conserving or preserving the case-study environment - provided accurate and clear explanations of how a range of plants and animals will benefit from preserving the environment - provided accurate and clear explanations of how a range of plants and animals will benefit from conserving the environment	15
Use maps, diagrams or graphs to support their explanations - used maps to show where changes to the environment have occurred - used maps to show changes to distribution of plants or animals caused by changes to the environment - accurate information on environmental change presented in graphs such as climate change - diagrams used showing cause and effect of environmental change	15

Step 3: Programming a learning sequence

In this unit students learn about people's impact on the physical environment through a study of past and present environmental change. They acquire knowledge and skills to predict and preserve the environment for now and future generations.

Topics	Suggested Activities	Assessment
Week 1–2 Environmental change – past, present and future	Collect recent news reports (newspaper, television, radio, etc) on environmental issues e.g. natural disasters, global warming and present a summary to class Listen to a guest speaker sharing local legends, songs, dances – which highlight, rules, precautions, penalties (warnings) In groups link common beliefs about the care of natural environment to facts from books, etc Students discuss their 'ideal environment' - how they can achieve it - identify the present problem - when and how they can contribute to that change Research current global environmental change	Formative assessment task 1 – self assessment against performance standards and marking guide
Week 3–4 Ways in which people change their environment	Research extinction of animals and summarise information in maps, diagrams, etc Debate current issues in PNG such as logging	Assessment task 1
Weeks 5–7 Local environmental issues	Field trip to local area to observe and note changes to environment Write a letter to the editor about local environmental issues	Formative assessment task 2 – self assessment against performance standards
Weeks 8–10 Conservation and preservation of the environment	Research/investigate reasons behind move for 'green revolution', present findings Create awareness pamphlet informing people about the consequences of not conserving and preserving our environment using mining/logging/fishing operations. Critique current strategies and plans Local project – carry out projects e.g. clean school grounds, clear drains, plant trees, sort and recycle trash, make compost	Formative assessment task 2 – self assessment against performance standards Finalise and hand in assessment task 2
Resources Information from the Department of Environment and Conservation, WWF PNG and other NGOs		

Step 4: Elaboration of content and activity

Suggested Activities

- Study of people who analyse environmental change and the work they do, for example, environmental scientists. Pretend to be geologists etc and analyse a major local environmental change.
- Demonstrate idea of 'overpopulation' and its impact on environment

- Find out about and discuss history and impact on the environment of a settlement/village near the school: how it started, why people moved there? how it has changed the environment?
- List factors contributing to extinction of animals such as use of bilas, increase in demand of resource and commercial activities.
- Report on areas of deforestation, for example, by logging, mining, etc.
- Draft rules for controlling mining of resources.
- Write a letter to the appropriate Minister for control on scale of mining, monitoring of mining, etc.
- Demonstrate ways to control pollution by separating school rubbish into biodegradable and non-biodegradable items.
- Critique packaging of certain foods as a protest against pollution and suggest alternatives.
- Write a letter to the editor: discuss reasons for the state the environment is in, recommend solutions, practices to be taken to address environment issue including how they could help, how the community could help, how the government could help.
- Study the school grounds and identify areas that have been affected by human and physical activities. Plan how to address the problem, present plans to SRC or school and action plans.
- Participate in and report on practical projects on environmental repair e.g. cleaning reefs, beaches, parks, the schools, streets, community areas; replanting trees, grass, shrubs; clear trash in creeks and storm water drains.
- Brainstorm advantages and disadvantages of conserving and preserving the environment.

Elaboration of content

Conservation

Conservation is about looking after the environment and natural resources through planned management to prevent exploitation, destruction or degradation, or neglect. Wise conservation of natural resources such as forests, rivers and lakes, wilderness areas, a diverse wildlife population, healthy soil, clean air and fuels will ensure their continuation for now and future generations.

Preservation

Preservation is protecting a natural environment by allowing it to evolve and function naturally by controlling human activity and unnatural disturbance. Usually the natural environment or natural resources have been identified as significant/important or threatened and therefore require protection. Examples include ecologically important wetlands (Tonda in Western Province) or other aquatic resources (rainbow fish of Lake Kutubu) and maintenance of forests. Other well-known examples of preservation have been for specific uses such as wildlife reserves or recreation.

Environmental Impact Studies

Environmental impact studies are detailed studies of the potential effects of development activities on the local environment. These studies evaluate

possible impacts on the flora, fauna, physical environment and socio-economic factors.

Development activities such as agricultural production, electrical generating stations, mining projects, marinas and other shoreline facilities (Napa Napa Oil refinery) and wood and saw milling works require an impact study.

Impact studies are important to avoid or minimise damage to the local area in terms of its ecology, air and water quality and to ensure long-term sustainable, minimal impact development.

10.3 Papua New Guinea and the Global Community

Step 1: Interpreting the unit learning outcomes

These unit learning outcomes link to the broad learning outcomes 1, 2, 5 and 6.

Outcome 10.3.1: Students can describe and explain the cultural, social, political and economic relations that exist between Papua New Guinea and the global community.

This outcome requires you to teach about and give opportunities for students to give examples of the cultural, social, political and economic relations that exist between Papua New Guinea and the global community such as treaties, trade agreements, cultural and sporting events.

Outcome 10.3.2: Students can compare and contrast types of national and global conflict.

This outcome requires you to teach about the different types of conflict using past and current examples. Students should be given opportunities to show the similarities and/or differences between types of conflicts.

Outcome 10.3.3: Students can collect, organise and present information for a variety of purposes.

This outcome requires you to teach and provide opportunities for students to practice skills in collecting information from a variety of sources including community, library books, internet, radio or television; organising and presenting the information for a variety of purposes such as for formative or summative assessment or group work.

Step 2: Planning for assessment

The assessment requirements of the unit tell you what specific knowledge and skills students will need to demonstrate they have achieved the learning outcomes.

Assessment task one is an assignment on conflict and seeks evidence that students can use the social science skills of collecting, analysing and presenting information; show how conflicts are similar, different or opposite in origin, nature and approaches to resolution and relate effects of conflicts on people, society and environment.

Students could do a case study of two conflicts as their assignment. The case study in 10.2 was a problem-based case study. This would be a historical case study in which students describe the causes and consequences of a situation and discuss the lessons learned, for example, the Bougainville conflict. This type of case study requires students to try to understand what has happened, and why. In this approach students do not identify problems or attempt to develop solutions.

In a historical case study – the student:

- describes the background to the situation explaining the position of individuals/organisations involved
- identifies the causes of the situation
- discusses the consequences of the situation
- discusses lessons learned
- makes recommendations for future similar situations.

Performance standards and marking guide

You must use these performance standards when marking the assessment tasks. Students should have access to a copy of them.

Performance standards for assessment task 1 **Total – 50 marks** **Compare and contrast two types of conflict**				
Assessment criteria	**Criteria**	**Criteria**	**Criteria**	**Criteria**
10 marks Collect and analyse information and present findings	**9–10 marks** Collected information from a diverse range of sources, analysed the findings and presented the results clearly	**7–8 marks** Collected information from many sources, analysed the findings and presented the results clearly	**5–6 marks** Collected information from some sources, analysed the findings and presented the results	**0–4 marks** Collected information from one or two sources with brief analysis of the findings and the presentation lacked clarity
25 marks Compare and contrast the origins and nature of the conflicts and approaches to resolution	**22–25 marks** Compared and contrasted the origins and nature of the conflicts and approaches to resolution	**18–21 marks** Compared and contrasted the origins or nature of the conflicts and approaches to resolution	**12–17 marks** Compared or contrasted the origins or nature of the conflicts and approaches to resolution	**0–11 marks** Limited understanding of the concepts of comparing and contrasting, origins and nature of the conflict and approaches to resolution
15 marks Describe the consequences of the conflicts	**14–15 marks** Described a range of appropriate consequences of the conflicts	**11–13 marks** Described consequences of the conflicts	**7–10 marks** Described some consequences of the conflicts	**0–6 marks** Limited understanding of cause and effect

Assessment task two is a test on globalisation and its implications for Papua New Guinea, international relations between countries, agreements involving Papua New Guinea and the different types of conflict. This test must be constructed carefully so that it assesses student's knowledge about these issues. The test should be split into two parts, one at the beginning of term and the other towards the end.

Step 3: Programming a learning sequence

Students learn about Papua New Guinea's increasing interdependence with other countries and its impact on social, economic, political and cultural spheres of life. They learn about international conflicts and their impacts on Papua New Guinea. The knowledge and skills gained will help students become tolerant and active members of the local, national and global community. Case studies are used to study international relations and conflicts.

Topics	Suggested activities	Assessment
Weeks 1–3 Globalisation and its effects in PNG	Brainstorm activities Draw consequence charts showing the results of their decisions regarding the clothes they wear, the music they listen to or the food they prefer to eat Debate on globalisation and its impact on themselves and PNG	Week 3: Assessment task 2 – test on globalisation (25 marks)
Weeks 4–6 What are international relations?	Discuss types of relations PNG has with other countries and the importance of aid. Use news items on foreign relations between PNG and other countries Choose a case study from examples given (or any others known to you) and research their origins, impact and approaches to resolutions and present their findings in various ways. (Students can improve on this case study or choose another one to research and present as assessment task 1.)	Week 5: Assessment task 2 – test on international relations (25 marks)
Weeks 7–10 Conflicts and resolutions	Use jigsaw groups to study different types of conflict and report back on their findings. Use self or peer assessment to formatively feedback on their work	Assessment task 1 – Research and presentation of case study of conflict
Resources Current texts News items from the media		

Step 4: Elaboration of content and activities

Some more ideas for activities

- Brainstorm things in the classroom that were produced in other countries. Extend the list to include as many things in found in Papua New Guinea.
- Conduct a debate on globalisation and its effects on themselves and Papua New Guinea.
  - try the round robin debate in which each student has to share her/his opinion
  - divide class members into two groups according to their chosen point of view. Each side alternately puts forward a persuading statement. All students have an opportunity to speak for their group
- Study and share news articles (from newspapers, television, radio, magazines, etc) on conflicts.
- Refer to pages 16-17 for ideas on how to help the students plan, organise and research information for their case study.

Globalisation

People around the globe are more connected to each other than ever before due to advances in technology. Information and money flow throughout the globe much more quickly. Products and brands are increasingly available in all parts of the world such as mobile phones, internet, music, Coke, Kodak or Nike. International travel is frequent, international communication commonplace.

Recording and reporting

All schools must meet the requirements for maintaining and submitting student records as specified in the *Grade 10 Assessment, Examination and Certification Handbook*.

Recording and reporting student achievement

When recording and reporting student achievement you must record the achievement of the students in each unit and then, at the end of the year make a final judgment about the overall achievement, or progress towards achievement, of the broad learning outcomes.

To help you do this, descriptions of the levels of achievement of the broad learning outcomes are provided in the Broad Learning Outcome Performance Standards. When reporting to parents, the school will determine the method of recording and reporting. In an outcomes based system, student results should be reported as levels of achievement rather than marks.

Remember that the final school-based mark will be statistically moderated using the external exam results. The students overall level of achievement may change.

Levels of achievement

The level of achievement of the broad learning outcomes is determined by the students' performance in the assessment tasks. Marks are given for each assessment task with a total of 100 marks for each 10 week unit, or 50 marks for each five week unit. The marks show the student's level of achievement in the unit, and therefore **progress** towards achievement of the broad learning outcomes.

There are four levels of achievement:

1. Very high achievement
2. High achievement
3. Satisfactory achievement
4. Low achievement
5. Below the minimum standard

A very high achievement means overall, that the student has an extensive knowledge and understanding of the content and can readily apply this knowledge. In addition, the student has achieved a very high level of competence in the processes and skills and can apply these skills to new situations.

A high achievement means overall that the student has a thorough knowledge and understanding of the content and a high level of competence in the processes and skills. In addition, the student is able to apply this knowledge and these skills to most situations.

A satisfactory achievement means overall that the student has a sound knowledge and understanding of the main areas of content and has achieved an adequate level of competence in the processes and skills.

A low achievement means overall that the student has a basic knowledge and some understanding of the content and has achieved limited or very limited level of competence in the processes and skills.

Below the minimum standard means that overall the student has provided insufficient evidence to demonstrate achievement of the broad learning outcomes.

Total marks	Very High Achievement	High Achievement	Satisfactory Achievement	Low Achievement	Below minimum standard
700	630 – 700	490 – 629	350 – 489	200 – 349	0 – 199
600	540 – 600	420 – 539	300 – 419	120 – 299	0 – 119
500	450 – 500	350 – 449	250 – 349	100 – 249	0 – 99
400	360 – 400	280 – 359	200 – 279	80– 199	0 – 79
300	270 – 300	210 – 269	150 – 209	60 – 149	0 – 59
200	180– 200	140 – 199	100 – 139	40 – 99	0 – 39
100	90 – 100	70 – 89	50 – 69	20 – 49	0 – 19
50	45 – 50	35 – 44	25 – 34	10 – 24	0 – 9

Sample format for recording assessment task results over two years for Social Science

Grade 9			
Unit	**Assessment task**	**Total Marks**	**Student mark**
9.1	**Mapping test**	**30**	
9.1	**Use of maps, sketches, diagrams and graphs to describe physical characteristics** of: - one Pacific region that contrasts with the local environment - the local environment (based on field trip observations or outdoor activities)	**70**	
9.2	**Test –** Interpreting population statistics	**40**	
9.2	**Oral presentation** on population change or migration and its causes and effects in either a global context or a local context	**60**	
9.3	**Test** with short answer questions	**40**	
9.3	**Historical investigations portfolio** Students investigate a local historical event or person. They must use local sources to uncover what happened in the past	**60**	
9.4	There are two choices– Students conduct **a mock campaign and election** or Students organise **a mock parliament and hold a debate on an issue**	**70**	
9.4	Group work: **Develop a set of rules** for an organisation outlining member rights and responsibilities	**30**	
Total marks for Grade 9		**400**	

Grade 10			
Unit	**Assessment task**	**Marks**	**Student mark**
10.1	**Test** – renewable and non-renewable resources	**40**	
10.1	**Portfolio** collection of three articles and annotated with their point of view in relation to them and suggested solutions.	**60**	
10.2	Produce **charts or diagrams** of cause and effect of environmental change	**30**	
10.2	**Case study** of conserving or preserving an environment	**70**	
10.3	**Case-study** of conflict	**50**	
10.3	**Test**	**50**	
	Total marks for Grade 10	**300**	
	Total school based marks for Grade 9 and 10	**700**	

Broad learning outcomes and levels of achievement

Levels of achievement in Grade 9 and Grade 10 are recorded and reported against the broad learning outcomes. There are six broad learning outcomes in Social Science. The performance standards for the levels of achievement are described in the following table.

Broad Learning Outcome Performance Standards					
	Very High Achievement	**High Achievement**	**Satisfactory Achievement**	**Low Achievement**	**Below Minimum Standard**
1. Communicate ideas and information in a variety of ways	Communicate complex ideas and information effectively using an extensive range of written, oral and graphic forms	Communicate ideas and information using a broad range of written, oral and graphic forms	Communicate information using written, oral and graphic forms	Communicate information using a limited range of either written, oral or graphic forms	Insufficient evidence to demonstrate achievement of learning outcomes
2. Explain the relationships between people, space, places and events through time	Give detailed explanations and reasons for a range of relationships between people, space, places and events through time	Give explanations and reasons for relationships between people, space, places and events through time	Explain relationships between people and space, or place, or events through time	Recognise relationships between people and space, or place, or events through time	Insufficient evidence to demonstrate achievement of learning outcomes
3. Explain the relationships between natural and built environments in Papua New Guinea and the world	Give detailed explanations and reasons for relationships between natural and built environments in Papua New Guinea and the world	Give explanations and reasons for relationships between natural and built environments in Papua New Guinea and the world	Explain relationships between natural and built environments in Papua New Guinea or the world	Recognise relationships between natural and built environments in Papua New Guinea	Insufficient evidence to demonstrate achievement of learning outcomes
4. Demonstrate understanding of issues relating to sustainable, ethical allocation and management of resources	Demonstrate extensive knowledge and understanding of a range of issues relating to sustainable, ethical allocation and management of resources	Demonstrate sound knowledge and understanding of issues relating to sustainable, ethical allocation and management of resources	Demonstrate knowledge of some issues relating to sustainable, ethical allocation and management of resources	Identify one or two issues relating to sustainable, ethical allocation and management of resources	Insufficient evidence to demonstrate achievement of learning outcomes

	Very High Achievement	High Achievement	Satisfactory Achievement	Low Achievement	Below Minimum Standard
5. Apply the Social Science skills of inquiry, observation, classification, recording and interpreting	Independently select and proficiently apply appropriate social science skills	Independently select and apply appropriate social science skills	Apply some social science skills to given situations	Apply social science skills to given situations with help	Insufficient evidence to demonstrate achievement of learning outcomes
6. Demonstrate understanding of personal responsibilities in relation to a sustainable society and environment	Demonstrate extensive knowledge and understanding of a range of personal responsibilities in relation to a sustainable society and environment	Demonstrate sound knowledge and understanding of a variety of personal responsibilities in relation to a sustainable society and environment	Demonstrate knowledge of some personal responsibilities in relation to a sustainable society and environment	Identify some personal responsibilities in relation to a sustainable society and environment	Insufficient evidence to demonstrate achievement of learning outcomes

Steps for awarding final student level of achievement

1. Assess unit tasks using unit performance standards and assessment criteria
2. Record results for each task in each unit
3. Add marks to achieve a unit result and a term result
4. Add term marks to get a year result
5. Determine the overall achievement using the achievement level grid
6. Report results using the broad learning outcome performance standards.

Example of reporting using the Broad Learning Outcomes performance descriptors

Student: ***Kila***

Subject: ***Social Science:***

*School-based assessment****: High achievement***

This means Kila can:

- communicate ideas and information using a broad range of written, oral and graphic forms
- give explanations and reasons for relationships between people, space, places and events through time
- give explanations and reasons for relationships between natural and built environments in Papua New Guinea and the world
- demonstrate sound knowledge and understanding of issues relating to sustainable, ethical allocation and management of resources
- independently selects and applies appropriate social science skills
- demonstrate sound knowledge and understanding of a variety of personal responsibilities in relation to a sustainable society and environment.

Note: For reporting to parents it might be necessary to translate the broad learning outcome descriptors into tokples if there is limited understanding of English.

Resources

Learning becomes more interesting and meaningful when you use a variety of resources and materials in your teaching. There are local people in the community – parents, village leaders, people with special skills and knowledge, local workers, business people, government officers and many more who can be invited to talk to students. Visiting places with students also makes learning more interesting.

You should be always trying to adapt, improvise, make or write material that will be useful for lessons in any subject. Collections of newspapers, magazines, pamphlets, brochures, old gazettes, posters can be very useful. There are many resources in schools which can be useful for more than one subject. One of the biggest resources is other teachers, especially teachers with local area knowledge.

Selecting and using resources

Selecting and using appropriate resources to communicate information is a very important part of your task. Resources can help students learn more effectively by:

- helping to gain and maintain interest in a lesson
- encouraging mental involvement and the use of different senses while learning
- making learning more meaningful by linking in with previous knowledge
- catering for students who learn best through different senses – for example, some students learn best through listening, while others learn best through seeing, touching, tasting, or a combination of these four ways
- helping in the recall of information
- making explanations of difficult concepts and skills clearer
- encouraging independent learning.

Types of resources

Print materials

- atlases
- maps (student maps and wall maps)
- text books, reference books
- magazines
- project kits
- simulation games
- diagrams, maps, charts, graphs
- blank maps
- posters

- worksheets, information sheets
- pamphlets, brochures

Audio visual material

- television and radio broadcasts
- video, film, filmstrips
- audio recordings
- slides, sound slide sets
- computer software, interactive video
- overhead transparencies

Materials and artefacts

- pictures, photographs
- compasses
- chalk/whiteboard, felt boards,
- models, globes
- newspapers
- documents and reports
- museums
- equipment

Natural and human resources

- farms, plantations, banks and offices, shops, trade stores, supermarkets
- factories, sawmills, processing plants
- hotels, guest houses
- services – police, fire stations, hospitals, aid posts
- built structures – buildings, bridges, dams, power stations
- natural environment sites – rivers, beaches, rock pools, forests, cliffs, caves
- local workers, business people, government officers
- community elders
- teachers
- parents

It is important to relate people to topics being taught. For example when studying history, use a range of people such as an elderly villager as well as other members of the community.

Use people who make good role models, for example a woman leader rather than a man. It is important for students to know about people who are a success in non-traditional roles.

It is important to take students outside the school to expose them to the ‘real world’. There is usually something in every topic which can be done outside.

General guidelines for selecting and using resources

The effectiveness of the resource very much depends on whether it is suitable for the knowledge or skill to be learned and the attitude of the students. Classroom organisation is the key to using resources successfully. You need to:

- Prepare thoroughly. Make sure that you are familiar with the resource so that you use it with confidence and assurance. If equipment is involved, check that it is in working order, make sure that you know how to operate it and that it is available when required.
- Use the resource at the right place and time in the lesson. The resource should fit in with the flow and sequence of the lesson. It should serve a definite teaching purpose.
- Should the resource be radio, film, video or television, introduce the program by outlining the content. You might also set some questions to guide listening or viewing. Follow-up after using the resource by discussing and drawing appropriate conclusions.

Using the internet for classroom activities

Planning

- Where appropriate, incorporate computer sessions as part of planned learning experiences.
- Be aware that computers can be time-consuming and may require additional teacher support at unexpected times.
- Consider methods of troubleshooting, for example, having students with computer expertise designated as computer assistants.
- Design activities that provide the opportunity for students to access, compare and evaluate information from different sources.
- Check protocols, procedures and policies of your school and system regarding the use of the Internet.

Managing

- Ensure that all students have the opportunity to explore and familiarise themselves with the technologies, navigation tools, e-mail facilities and texts on the Internet. It is likely that students will have varying degrees of expertise in searching for information and navigating the Internet. Students will also have varying experiences and familiarity with the way texts are presented on the World Wide Web.
- Ensure that all students have an understanding of how to access the Internet and how to perform basic functions, for example, searching, sending and receiving e-mail.
- Students with more experience in using the Internet may have information that will benefit the whole class. Provide opportunities for students to share their experiences, interests, information and understandings. As well as planning lessons to instruct students in these skills, pairing students, and peer tutoring on the computer can enable more experienced students to assist other students.
- Ensure that students critically analyse information gathered on the Internet just as they would for any other text. They should be aware that material posted on the World Wide Web is not necessarily subject to the

conventional editorial checks and processes generally applied to print-based publications. When evaluating information students might consider:

- the intended audience of the site
- bias in the presentation of information, or in the information itself including commercial or political motives
- accuracy of information
- balanced points of view
- currency of information, including publishing dates
- authority of source or author (institution, private individual)
- ownership of the website (corporate, small business, government authority, academic)
- cultural or gender stereotyping.

- Ensure that software and hardware (computer, modem) are maintained in good working order
- Ensure that all students are given equal opportunities to use the computer.

Assessing student work containing material from the internet

- Students can download large quantities of information from the internet. By itself this information provides very little evidence of student effort or student achievement. Students must make judgements about the validity and safety of information when working from the world wide web. They must consider the purpose of the text, identify bias, consider the validity of arguments presented and the nature and quality of the evidence provided.
- When assessing student work that includes material drawn from the Internet, therefore, it is important to recognise how students have accessed the particular information, what value they place on it and how they have used it for the particular topic being studied in class. It is useful to look for evidence of critical evaluation, and the development of students' capacities to access, manipulate, create, restore and retrieve information.

Print Resources

Here is a list of useful resources for Social Science that you should build on:

Abaijah, J. (1991) *A Thousand Coloured Dreams*, Dellasta Pacific

Adeola, J. (1996) *PNG Women Writers: An Anthology*, Longman: Melbourne

Aerts, T. (1998) *Traditional Religion in Melanesia*, UPNG

Air Niugini – *Paradise* collections and various in-flight magazines

Aplin, D. (1994) *Rabaul 1942,* Pacific Press

AusAID (2000) *Papua New Guinea program profiles* 1999–2000, Canberra

Banks, A. (1997) *Political handbook of the world*, New York

Bates, N. (1984) *Introduction to Legal Studies*, 4th Edition, Butterworths, Australia

Beddis, R. (1989) *The Third World – Development and Interdependence*, Oxford

Biskup, Jinks and Nelson (1968) *A Short History of New Guinea*, Angus and Robertson

Bonner, C. and Ralph, B. (1994) *Key Skills in Geography*, Longman Cheshire

Brown, M. (?) *Developing Social Science Skills*, UPNG

Bunnet, R. (1989) *Physical Geography in Diagrams*, Longman

Chapman, D. (1985) *Understanding Our Earth*, Pittman

Cleland, R. (1996) *Grass Roots to Independence and Beyond* – The Contribution by Women in PNG 1951 –1991, National Library of Australia

Codrington and Crittenden (1998) *The Geography Skills Book,* Heinnemann, Auckland

Cole, T. (1993) *The Last Paradise*, Angus and Robertson

Constitution of Papua New Guinea – Preamble

Corrier and Collins (1987) *Poverty, inequality and development*, Port Moresby

Crama, S. and Dodd, B. (1989) *Discover Your World* Book 1, Jacaranda Press

Currie and Cameron (1990) *Your Law: A course in Legal Studies*, Moreton Bay

Davey, C. Emery J, Mine A (1980) *Communities, People, Places and Patterns*, Rigby

David, K. (1988) *Foundations of Geography*, UPNG

Department of Planning and Monitoring (1999) *PNG National Population Policy 2000–*

Derndt, R. and Lawerence, P. (1971) *Politics in New Guinea*, University of Western

Destination Papua New Guinea (1995)

Dolan, C. (1999) *Hazard Geography*, Longman, Melbourne

Dorney, S. (2000) *Papua New Guinea: people, politics and history since 1975*, ABC

Edwards, R. (1987) *Law and Order*, Wayland, United Kingdom.

Flaherty, T. (1998) *The Women's Voice in Education*, Melanesian Institute

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Glossaries

Social Science glossary

Appraise	To assess or evaluate.
Archaeologist	A scientist who studies places where people lived long ago.
Assessment criteria	Statements that are used to judge the quality of student performance.
Assessment methods	Ways of gathering information about students' achievements of the learning outcomes.
Assessment tasks	Activities that students do to demonstrate their achievement of the learning outcomes.
Colony	A country or area governed and controlled by another, more powerful country.
Colonisation	A process whereby an imperial state (ruling and powerful country) acquires new territories for occupation in order to exploit the resources and people of that territory.
Conservation	Looking after, protecting and managing the natural environment.
Constitution	The written rules which set out how a country should be governed.
Contemporary	Modern, current (belonging to the same period).
Culture	The way of life of a group of people. Elements of a culture include such things as traditions, customs, language, beliefs, arts, architecture, music, food, leisure, goods created and used and trade.
Democracy	A country governed by representatives elected by the people.
Development	Change which may lead to improvements in the standard of living but which may also cause detrimental change, for example, to the natural environment.
Fauna	Native animals which are originally from the area that they are now found in.
Flora	A collection of native plants living in a particular area.
Globalisation	A process occurring in many parts of the world leading to very common adoption of the same lifestyle, for example, in clothing, manufacturing, consumer habits, and a loss of some unique aspects of cultures.
Government	Elected group of people who organise a nation's affairs.
Human environment	How people, individually or as members of a group or community, behave, where they live, work and play, and how they use the land.
Infrastructure	Roads, ports, electricity, water that are built or supplied to an area to allow greater economic activity and improvement in living standards.
Internet	An electronic way of obtaining information using a computer.

Landform	A specific physical feature of the earth's surface e.g. valley, mountain or hill.
Migrate	To move from one's home or country to settle in another place or country.
Non-renewable resources	Resources that cannot be replaced naturally once they have been used up.
Physical environment	Also known as the natural environment. The living and non-living parts of the environment such as vegetation, mountains, swamps, rivers and seas.
Pollution	The poisoning or spoiling of the environment.
Population density	A calculation of the number of people per square metre.
Population distribution	Description of where people are located, for example, in rural and urban areas.
Renewable resources	A resource that can continue to be made available from nature for use.
Resources	Anything which people consider valuable and useful.
Society	A group of people who share the same culture.
Sustainable	To improve and maintain the quality of something.

Assessment glossary

Syllabus outcomes, criteria and performance standards, and examination questions have key words that state what students are expected to be able to do. A glossary of key words has been developed to help provide a common language and consistent meaning in the syllabus and teacher guide documents.

Using the glossary will help teachers and students understand what is expected in responses to examinations and assessment tasks.

Knowledge level	
Account	Account for: state reasons for, report on. Give an account of: narrate a series of events or transactions
Analyse	Identify components and the relationship between them; draw out and relate implications
Apply	Use, utilise, employ in a particular situation
Appreciate	Make a judgement about the value of
Assess	Make a judgment of value, quality, outcomes, results or size
Calculate	Ascertain/determine from given facts, figures or information
Clarify	Make clear or plain
Classify	Arrange or include in classes/categories
Compare	Show how things are similar or different
Construct	Make; build; put together items or arguments
Contrast	Show how things are different or opposite
Critically (analysis/evaluate)	Add a degree or level of accuracy depth, knowledge and understanding, logic, questioning, reflection and quality to
Deduce	Draw conclusions
Define	State meaning and identify essential qualities
Demonstrate	Show by example
Describe	Provide characteristics and features
Discuss	Identify issues and provide points for and/or against
Distinguish	Recognise or note/indicate as being distinct or different from; to note differences between
Evaluate	Make a judgement based on criteria; determine the value of
Examine	Inquire into
Explain	Relate cause and effect; make the relationships between things evident; provide why and/or how
Extract	Choose relevant and/or appropriate details
Extrapolate	Infer from what is known

Identify	Recognise and name
Interpret	Draw meaning from
Investigate	Plan, inquire into and draw conclusions about
Justify	Support an argument or conclusion
Outline	Sketch in general terms; indicate the main features of
Predict	Suggest what may happen based on available information
Recall	Present remembered ideas, facts or experiences
Recount	Retell a series of events
Recommend	Provide reasons in favour
Summarise	Express, concisely, the relevant details
Synthesise	Putting together various elements to make a whole. Propose/ put forward (for example a point of view, idea, argument, suggestion) for consideration or action