Palauan Studies

CURRICULUM FRAMEWORK



PALAU PUBLIC SCHOOLS

Developed by

The Palauan Studies Framework
Development Committee
1988 – 1992

PALAUAN STUDIES FIRST GRADE

The Palau Ministry of Education is indebted to Masa-Aki N. Emesiochl, director for the Bureau of Curriculum and Program Development, who provided the inspiration and means for creating the first set of Curriculum Frameworks for Palau Public Schools. From their inception, his vision for these frameworks as a critical tool in the process of curriculum renewal and improvement has been the driving force for their ultimate completion. We are grateful for his unwavering commitment toward the educational advancement and future dreams of our children.



The development of the *Palauan Studies Curriculum Framework* was partially funded by the Chapter II program.

The opinions expressed in this framework do not necessarily reflect the position or policies of the United States Department of Education, and no official endorsement by the DOE should be inferred.

This framework was developed by the Bureau of Curriculum and Program Development, Ministry of Education, Republic of Palau.

foreword

Curriculum renewal and improvement is an ongoing process. For many years now, it has been very clear that the Ministry of Education's improvement efforts would be greatly facilitated if frameworks for all our content areas could be completed. This important task is not a small one. Since the Ministry's initiation in 1986 of its Five-Year Improvement Plan, the dialogue and work to detail, refine, review, and reach consensus on what knowledge is most important to teach for each discipline for twelve years of schooling has been foremost in the work and thoughts of the Ministry's personnel.

These important maps, our frameworks, need to take Palau's students into the next century with strong foundations and skills to deal with the community and world around them. This framework is one of seven completed core frameworks which when implemented will help everyone involved with education in Palau to be much clearer on our task, mission, and prescribed program for each student. We believe that our frameworks are finally ready to help us chart a course to many improvements in terms of our instructional program, staff development, materials development, and materials adoption for the next several years, and we are extremely excited.

Of course, it is in the implementation of our frameworks that we will be able to see the real strength of our commitments and ideas. But, if the development process for the frameworks and the many people who gave of themselves often beyond what they thought possible is any indication, we are confident that these next few years for education in Palau will be bright and will bring about many significant improvements.

The teaching of Palauan Studies and the things outlined in this framework brings us one step closer to ensuring that our students will be able to return to their communities appreciating, promoting, preserving, and maintaining our rich cultural heritage. Our current system of education was basically imposed upon us. It has taken us some time to understand the system so that we could proceed with confidence to know what is worth keeping, and also what must be changed if our schools are to operate in the best interest of our nation and future.

Recently, quite a number of us have undertaken a massive campaign to revise and make more relevant what we teach in our schools. Mandating the teaching of our language and cultural heritage in our schools is viewed by many of us in the education community and community-at-large as a step in the right direction.

But unlike other curriculum content areas, there is no place where we can simply order the instructional materials to support the teaching of our language and culture. This Palauan Studies effort will require intensive materials development activities, patience, and quite a bit of work. We seek your continuing support in this effort, and would like to express our deep appreciation to all those individuals who contributed to the development of this particular curriculum framework. Its significance will be brought out when we can finally with confidence return our students back to their communities able to effectively communicate in harmony with their elders.

Masa-Aki N. Emesiochl

Director

Bureau of Curriculum & Program Development

Palau Ministry of Education

Monesioch

1993

CHAPTER 1 Rationale for the Teaching of Palauan Studies

Traditionally, the learning of the languages and cultures of Palau was not accomplished in a formal school setting, but by participating actively as a member of the family, clan, and society. The customs, history, and values of Palau were passed on through everyday practice. Today, Palauan language remains the dominant language of our homes, and Palauan culture continues to dominate every aspect of our lives, but because of the many changes that have taken place in our work and leisure lives, there exists a new need for the schools to assist in the matter of cultural education. Palauan Studies needs to be taught and learned for a number of reasons.

Foster awareness and knowledge of Palau, the rest of the world, and the role of Palau in the world and

Prepare students as responsible citizens of Palau

As we adapt and adopt new practices, values, and approaches from other places and other cultures, the richness and subtleties of our own language and culture are being threatened. It is a fact that culture is not static and is ever changing./However, as Palauans who are proud of our language, heritage, and traditional ways, we believe that all our students must be first firmly rooted in the histories, cultures, and languages of the people of Palau first so that they can be rooted in healthy self-identities, and a Palauan world view which allows them to make wise decisions for Palau's future. With a firm foundation in our languages and cultural values, the important job to preserve, maintain, and promote Palau and Palauan ways will be possible to carry out./

Knowledge about our history and historical events affords us the opportunity to learn from it. With a solid understanding of where we have been, what has been tried already, what was successful, and what was not, our students will have a greater opportunity to learn from the past in an effort to carve out a better future.

Instill in students the value of Palauan identity and unity

Our educational program would be seriously faulty if it did not seek to promote and develop the self-pride and self-esteem of our students. As Palauans and people living in Palau, they have inherited a rich, intricate, and beautiful legacy of culture. If we want our young people to become initiators, problem solvers, and architects of a better way of life, they will need to be knowledgeable, confident, and proud about who they are and where they come from.

Throughout our communities there is the real concern by our elders that the schools are sending back to communities and villages graduates who behave like strangers to their own language and experience. Currently, the school texts and materials are dominated by the English language, Western ways, values, beliefs, and life styles. Our students cannot be considered "well-educated" if most of them fumble to show respect, or behave uncomfortably when engaged in a conversation with a community elder.

Our desire is to have students who have the ability to retain and promote our traditional values, such as cooperation, respect for elders, the importance of not abusing or wasting our natural resources, etc., and our homes and schools will need to join forces and work together to ensure that these values are learned by the students.

Invariably, Palauans travel, and eagerly seek to learn from other cultures and countries. In order to prepare our students to truly participate as effective global citizens, they will need to be able not only to respect the people of other languages and value systems, but share themselves and be successful in educating, informing, and communicating to the outside world about Palau and Palauan ways.

Provide students with basic language skills

Without language, there is no thought. Only with strong, well-developed language skills—listening, speaking, writing, and reading—will students be well-prepared to participate in the world around them. For the vast majority of our students, Palauan is

Palau Ministry of Education / Palauan Studies Curriculum Framework

their first language. But, because English reading materials, television, and videos are a major force in today's Palau, strong incentives at school or in the community for students to be highly skilled in the reading and writing of Palauan are hardly nonexistent. A consequence of this shift to English is that some of the subtle beauty of our traditional ways of communicating are not being learned, practiced, and valued by today's generation. Effective communication requires enough knowledge, vocabulary, practice, and skills to express oneself clearly and confidently for a variety of situations and a variety of audiences. Most of our graduates are unable now to do this in Palauan.

Speakers of Palauan language have a unique way of describing things, telling stories, and communicating our points of view. Now, too often in our everyday conversation, we are forced to mix many foreign borrowed words and phrases into our discussions. Embarrassingly too often, we struggle to remember the Palauan vocabulary or phrases that convey the same meaning. Also, often we unintentionally show our disrespect to our community elders and leaders because we are simply not well-versed in knowing what is the appropriate thing to do or say.

The reality is that those students who are able to graduate from our school system with strong literacy skills in at least Palauan and English will be the best prepared to be successful in today's Palau, economy, and job market.

Also, the development of reading and writing skills in one's first language is known to be a definite advantage for learning to read and write in subsequent languages. This means that our students who can confidently and competently compose, think, read, and speak in Palauan or Sonsorolese should proceed more easily in their ability to learn to be literate in English, Japanese, Spanish, or any other language.

Our students and society need an educational program that is relevant. The ability to communicate effectively to one's own people about one's own reality is a basic need. The aggressive and thoughtful teaching of Palauan language and culture should help to fill an important gap which currently exists within the curriculum.

CHAPTER 2

The Goals and Objectives of the Palauan Studies Curriculum

The Goals and Outcomes of the *Palauan Studies Curriculum* Framework are to Develop Students Who ...

MAJOR ATTITUDES

- Take pride in their heritage and believe that the preservation, promotion, and maintenance of Palauan culture and language is vitally important.
- Appreciate and respect Palauan values and beliefs, e.g., respect for elders, cooperation, resourcefulness, conservation, responsibility, loyalty to family, etc.
- Believe in protecting those things that have been traditionally valued within the culture, i.e., relationships, land, the reef, traditional places, Palauan money, etc.
- Feel confident in their ability to discuss and carry out their roles in traditional customs and practices.
- Take pride in their ability to use their knowledge of the history and geography of Palau to make wise decisions about Palau's future.
- Enjoy and appreciate excellence in traditional dancing, weaving, chanting, singing, carving, and other forms of artistic expression.
- Feel effective in their ability to use their communication skills to more constructively participate as a contributing member of their family, society, country, and world.
- Feel confident to communicate in Palauan through speech and writing for a variety of personal, practical, academic, and creative situations and needs.
- Appreciate, respect, and value the differences and similarities between Palauan and other languages, and between the people of Palau and those of other cultures.
- Find direction and deepening awareness of themselves through hearing and reading important Palauan "classics" (legends, stories, songs, chants, various writings, speeches, etc.) that address important Palauan values and issues.
- Find satisfaction and deepening sense of pride and self-worth as they write and feel confident in their own abilities to compose, express their feelings and opinions, and take on the creative role of "author."
- Feel confident and eager to problem solve and seek out new ideas and information because of their competencies with various Palauan information resources.

CULTURAL KNOWLEDGE AND SKILLS

A. Value and Things of Value

Values, things valued, past and present

- 1. Demonstrate knowledge of the *twenty* most important values of Palauan culture.
- 2. Identify and discuss the skills, knowledge, and things that have been traditionally of great value to Palauans.
- 3. Apply their knowledge of Palauan values to problem solving and predicting positive outcomes to conflicts.
- 4. Consider and evaluate traditional values with newer values that are being introduced into the culture.

B. Beliefs and Spiritual Rituals

- 5. Discuss and describe some of the traditional beliefs of Palau.
- 6. Identify and discuss various beliefs held by various communities within Palau.
- 7. List and discuss the ways magic is commonly used.

C. Social Relationships, Roles, and Responsibilities

Accountability

- 8. Demonstrate knowledge of names used to describe various relationships.
- 9. Discuss and describe the nature of traditional roles, responsibilities, and relationships between members within a family.
- 10. Discuss and describe the nature of traditional roles, responsibilities, and relationships among members of the same clan.
- 11. Discuss and describe Palauan adoption customs.

- 12. Discuss and describe the nature of traditional relationships among friends of the same gender.
- 13. Discuss and describe the nature of traditional relationships between males and females throughout the various stages of life.
- 14. Discuss and describe the social order and organization of the clan, village, and community.
- 15. Discuss and describe the nature of relationships among certain villages with others, i.e., traditional alliances, rivalries, etc.
- 16. Compare and contrast the relationships between the new Palauan government system and the traditional system of governance.

D. Customs and Practices

- 17. Demonstrate and explain traditional ways of showing respect to various populations, e.g., elders, children, etc.
- 18. Discuss and describe the customs and practices traditionally carried out at various stages throughout the life cycle, i.e., conception, birth, and death.
- 19. Discuss and describe the traditional practices for marrying, carrying out marriage obligations, and divorce.
- 20. Demonstrate knowledge about the custom of ocheraol.
- 21. Discuss the customs associated with selecting and naming chiefs.
- 22. Demonstrate knowledge about how food was traditionally preserved, prepared, and served.
- 23. Discuss and describe the traditional attire of Palauans.
- 24. Identify and discuss the customs and practices associated with inheritance.
- 25. Discuss and describe what traditionally took place at the bai.
- 26. Identify and discuss the various traditional laws that governed community life and what was done when one was found to be in violation.

E. History

Origin, migration, foreigners, major events, major changes, Palauan "firsts"

- 27. Demonstrate knowledge of the origin of Palau according to legend.
- 28. Name and discuss the major factors that shaped the current population mix.
- 29. Trace the course of how family life has changed over the past fifty years.
- 30. Trace the course of how work life has changed over the past fifty years.
- 31. Discuss and explain the migration of Palauans to and from Palau over the last fifty years.
- 32. Discuss and explain the impact that the immigration of outsiders to Palau has had on Palau's culture, economy, and social structure.
- 33. Name and discuss various individuals who made major contributions to the quality of life in Palau.
- 34. Name and discuss the major events that shaped the current system of governance.

F. Geography

- 35. Demonstrate knowledge about the geography of their own villages.
- 36. Demonstrate knowledge about the traditional villages of Palau.
- 37. Name and describe the major land masses, bodies of water, and concentrations of natural resources of Palau.

G. Crafts and Artistic Expression

- 38. Demonstrate the ability to weave a number of traditional items.
- 39. Demonstrate the ability to carve a number of traditional items.

- 40. Demonstrate ability to make traditional attire, jewelry, and other decorative items.
- Demonstrate ability to make and use a number of essential tools and equipment relevant to gardening, fishing, and cooking.
- 42. Demonstrate knowledge about traditional Palauan construction and architecture.
- 43. Demonstrate expertise at performing a variety of traditional dances songs, and chants.

KNOWLEDGE AND SKILLS FOR PALAUAN LANGUAGE

H. Listening

- 44. Have numerous opportunities to listen to quality stories, songs chants, poems, dramas, speeches, audio tapes, readings, etc., which are highly interesting and relevant to them.
- 45. Have numerous opportunities to hear Palauan practiced, spoken and read aloud by them, their classmates, their teachers, and by other experts.
- 46. Think about what they hear and listen well enough to identify discuss, and summarize key elements, i.e., the directions: the theme main idea, sequence of events, the speaker's or reader's motivation plot, setting, main characters, characterizations, form. etc., of what is read or spoken to them.
- 47. Discriminate effectively between someone who is a model and effective reader, storyteller, speech maker, conversationalist and someone who is not.
- 48. Discuss and demonstrate how a courteous audience behaves.
- 49. Effectively listen to nonverbal cues.

I. Speaking and Reciting

50. Have many opportunities to be engaged in discussion about things that are important to them, that they are experiencing, feeling, and about which they are reading and studying.

- 51. Express themselves in speech with clarity and precision for many *practical* situations, i.e., asking questions, giving directions, participating in everyday conversations, sharing their feelings and experiences, participating in meetings, giving speeches, etc.
- 52. Express themselves in speech with clarity and precision for many *creative* and *recreational* situations, i.e., telling jokes, storytelling, reciting poems, sharing songs, playing games, presenting skits or dramas, etc.
- 53. Express themselves in speech with clarity and precision for many *academic* situations, i.e., participating in small or large group class discussions, sharing information with classmates, brainstorming, giving different reports, debating questions, dramatic readings, etc.
- 54. Confidently read aloud chorally and individually various works (letters, stories, poems, newspaper articles, own compositions) with effective use of voice, volume, pace, tone, intonation, pronunciation, gesture, facial expressions, etc.
- 55. Capably retell stories in their own words.
- 56. Sensitively and respectfully disagree with another's point of view in discussions.
- 57. Discuss and demonstrate how effective speakers must modify what they are saying or reading aloud in order to be effective and sensitive to their audiences.
- 58. Capably use body movements, skits, and dramatizations to convey meaning.
- 59. Persuasively present a speech or an argument, and orally sway the attitude of an audience of their peers and teachers.

J. Viewing, Reading, and Literature

- 60. Have many opportunities to view and read a large variety of well-written stories, books, plays, pamphlets, articles, posters, charts, diagrams, printed materials, etc., which are highly interesting and well-illustrated.
- 61. Have numerous opportunities to read their thoughts, their stories, and about their own reality.

Palau Ministry of Education / Palauan Studies Curriculum Framework

- 62. Independently select and read various materials from a library for both *pleasure* and *personal* enrichment.
- 63. Independently select and read various materials from a library for *academic* purposes.
- 64. Read with confidence various *practical* writings related to successfully carrying out various everyday activities, e.g., labels, signs charts, posters, lists, instructions, notes, memos, letters, recipes, prescriptions, receipts, bills of sale, forms and applications, job announcements, newspaper and magazine articles, laws, legislation, etc.
- 65. Analyze and find with ease the main ideas, main characters, theme, sequence of events, and cause and effect relationships, plot, setting, characterization, points of view, etc., in what they read.
- 66. Proficiently read illustrations, symbols, graphs, maps, charts, posters, diagrams, and other visual displays.
- 67. Demonstrate familiarity and knowledge about significant Palauan and Pacific Region children's, intermediate, and adult literary classics, their authors, and the period and conditions in which they were written.
- 68. Discern what is an excellent piece of writing and when an author has been effective.

K. Composing and Writing

- 69. Have many opportunities to write about things that are important to them, that they are experiencing, feeling, and about which they are reading and studying.
- 70. Use various literary works and forms as models, and compose their own versions of these writings.
- 71. Proficiently create illustrations, timelines, graphs, maps, charts, and diagrams to communicate their ideas.
- 72. Express themselves in writing with clarity and precision for many *academic* situations, i.e., responses to questions, writing stories, notes, reports, poems, skits, plays, summaries, book reviews, essays, research papers, outlines, journal entries, lab reports, trip summaries, technical reports, etc.

- 73. Write with clarity and confidence about their feelings, points of view, and perceptions of everyday occurrences and the world around them for many *personal* and *creative* situations, e.g., diaries, letters, poems, songs, stories, skits, dramas, etc.
- 74. Competently compose *practical* everyday items used to communicate ideas, i.e., labels, signs, lists, instructions, notes, memos, letters, recipes, prescriptions, receipts, bills of sale, forms and applications, sharing of their feelings and everyday experiences, recording meetings, etc.
- 75. Demonstrate skill and familiarity with all phases of the writing process (pre-writing, drafting, revising, and final editing), and use feedback on their writings so that they end up clear, interesting, and well-written compositions.
- 76. Discuss and demonstrate familiarity with writing using various formats, i.e., short stories, fiction, nonfiction, poetry, novels, diaries, journal entries, autobiographies and biographies, essays, narratives, expository writings, dramas, comedies, tragedies, etc.
- 77. Effectively use their writing skills to help them improve the conditions around them.

L. Critical Thinking

- 78. Think about what they hear and read, and respond to these ideas with integrated writing, speaking and listening activities.
- 79. Think with increasing complexity (i.e., recall, sequence, summarize, group, delete, compare and contrast, predict, elaborate, expand upon, infer, apply, evaluate, etc.).
- 80. Distinguish between fact and opinion in what they read, view, and hear.
- 81. Analyze stories for deeper meaning, and understand inferences.
- 82. Interpret and discuss with ease the relevancy of what they read in terms of their understanding, feelings, values, and experiences.

- 83. Make predictions and judgements about what they read, hear, and view, and justify their conclusions.
- 84. Consider what they read and hear in terms of the human, ethical, and cultural values that they reflect and promote.
- 85. Recognize propaganda techniques in what they read, view, and hear.
- 86. Share their awareness of various aesthetic values, i.e., writing style, wit, use of imagery by the authors that they study.
- 87. Proficiently diagram their ideas as an effective way of organizing information.
- 88. Confidently use various language and information resources (library, MARC, National Museum, and other collections and repositories) to investigate questions and get answers.
- 89. Effectively participate in all phases of group problem-solving, i.e., problem identification, brainstorming, information retrieval, synthesizing information, proposing a course of action for resolution of the problem, plan modification, evaluation of solution.
- 90. Capably discuss how tragedy, irony, simile, metaphor, image, symbolism, humor, etc., is employed in writings.

M. Vocabulary Development

- 91. Have strong enough vocabulary and language skills so as to read Palauan language newspapers proficiently.
- 92. Face new words with strategies for getting what they mean.
- 93. Discuss how knowledge of the origin of words, root words, and prefixes can help in understanding the meaning of a word.
- 94. Complete creative writing assignments employing vocabulary and concepts taught to them from the various core content areas (i.e., Science, Math, Social Studies, Health, Palauan Studies, English Language Arts).

N. Structure and History of the Language

- 95. Recognize common sounds and patterns of Palauan.
- 96. Demonstrate familiarity with Palauan grammar, grammar references, and style books.
- 97. Identify and discuss various conventions of writing—punctuation, capitalization, and spelling.
- 98. Demonstrate awareness of formal and informal Palauan.
- 99. Discuss and identify various dialects and slang.
- 100. Demonstrate familiarity with the history of Palau's languages, the current status of Palauan languages in the world, current issues that surround the orthographies, and literacy.
- 101. Identify and discuss some of the similarities and differences between Palauan and other languages of the Region.
- 102. Recognize places where there are sizable communities of Palauans.
- 103. Discuss how languages change, and what are some of the ways Palauan is changing.

The Organization of the Palauan Studies Curriculum

Following are major topic areas for the Palauan Studies Curriculum accompanied by short descriptions:

CULTURAL KNOWLEDGE AND SKILLS

A. Values and Things of Value

This information should help students understand what we have traditionally viewed as important. Hopefully, with this information the students will be able to preserve the priorities and continue to value those attitudes, behaviors, knowledge, skills, and items that have been traditionally held in high regard.

B. Beliefs and Spiritual Rituals

This information should help students understand some of the beliefs held traditionally by some in the culture. Many of these beliefs were only prevalent among certain villages and sometimes were passed on and sometimes not. However, what was and wasn't acceptable in daily practices were usually shaped by these beliefs.

C. Social Relationships, Roles, and Responsibilities

This information should help students understand how we relate to each other in a culturally acceptable manner. Hopefully, with this information the students will be better able to show respect to everyone around them.

D. Customs and Practices

This information should help students understand the different practices which made up and make up our daily life. Hopefully, with this information the students will be better able to carry on these practices in a knowledgeable and respectful manner.

E. History

This information should help students appreciate the rich heritage that they have inherited. With their knowledge of the past, hopefully students will be better able to integrate new and old ideas in their problem solving.

F. Geography

This information should help students appreciate, preserve, and describe the world around them. Hopefully, with this information the students will be better able to manage and cope with various problems and be successful at effectively problem-solving for their needs and those of others.

G. Crafts and Artistic Expression

This information should help students appreciate the local crafts and artistic expression. Hopefully, with this information the students will be better able to express themselves in creative and constructive ways.

KNOWLEDGE AND SKILLS FOR PALAUAN LANGUAGE

H. Listening

This information should help students develop strong abilities to listen to speakers of Palauan and understand what they are saying. Hopefully, with this information the students will also learn to grasp the subtleties of the language and appreciate the beauty of spoken Palauan.

I. Speaking and Reciting

This information should help students develop strong abilities to communicate through speech. Hopefully, with this information the students will also learn to speak or recite with confidence and clarity for a variety of situations.

J. Viewing, Reading, and Literature

This information should help students develop strong reading abilities. Hopefully, with this information the students will be able to confidently seek out variety of writings, read them, and learn from them. This information should help students understand the importance and value of their own language and lore.

K. Composing and Writing

This information should help students develop strong abilities to write about their feelings and the world around them. Hopefully, with this information the students will be able to express, document, and communicate to others their perceptions and concerns.

L. Critical Thinking

This information should help students develop strong abilities to apply what it is they read. Hopefully, with this information the students will better be prepared to solve any problem that might confront them in a logical, economical, and thoughtful manner.

M. Vocabulary Development

This information should help students develop in their ability to confidently read newspapers, confront new words, and access documents, libraries, individuals, and various writings for information. Hopefully, with this information the students will be able to confidently know where to go to find the meaning of something and information about something whenever they need it.

N. Structure and History of the Palauan Language

This information should help students develop their appreciation for the structure of Palauan language. Hopefully, with this information, students will be better able to organize their thoughts about languages and confidently proceed to learn many more languages.

The order in which the topic areas are presented is meant in no way to be a reflection of their relative importance within the curriculum. All of the topic areas are addressed in every grade and are all viewed as important and vital. They were all selected based on their relevance to existing needs and cultural concerns prevalent throughout our Republic.

What determines the sequencing of the information and the placement of specific topics and components is our understanding about our students and their level of maturity and need for specific information at particular grades. We do operate under the assumption that our students' abilities to handle more and more complex feelings, ideas, and issues develop as they grow and mature.

Palauan Studies education is provided from grades 1 through 12 in every school. The course of study and student activities focus on developing knowledgeable learners who are capable of respectfully participating in our customs and skillfully communicating in our own languages.

CHAPTER 4

The Instructional Approach for the Palauan Studies Curriculum

In the preceding section, the reasons why we believe the teaching of Palauan Studies is so critical for our students was covered. What also has been detailed is what we hope they will feel, know, believe, and be able to do by the time they graduate from our schools. How well we accomplish our goal to send our students upon graduation back to their communities to participate as skilled communicators of Palauan language and culture depends greatly on *how* our Palauan Studies curriculum is taught, responded to, and supported.

What follows are a number of brief suggestions that the Palauan Studies staff would like to respectfully make about how this curriculum needs to be taught. We believe that if these suggestions are accepted and adopted, the intent of this curriculum and the needs of our students would then be best served.

The Role for Our Teachers

The teacher's role in the curriculum is critical. He or she must carry out a number of roles to ensure that *all* our students attain the goals and objectives that have been set form in Chapter 2. It is especially important that the students have teachers who provide them with the following:

· A Good Role Model

No amount of reading, exposure to interesting activities and presentations will challenge students to value and respect our language and culture if our teacher's behaviors are in direct contradiction to what he or she is teaching. It is vitally important that the teacher constantly model respect for our language and culture.

Also, it is important to remember that while our school hours are only for specific hours, our students' needs for adults who practice and model respectful habits are 24 hours a day.

· A Builder of Self-Esteem and Confidence

We know that our students learn best when they are able to learn in caring environments where they feel that they are accepted and respected. Every effort must be made by the teacher to allow each student an opportunity to have her and his feelings, ideas, and school work acknowledged and respected.

It is important that the teacher establishes and maintains with the class certain rules that help the students work in class in friendly, cooperative, and caring ways. It should be clearly communicated to each and everyone in the school that name calling and the humiliation of members of the school will not be tolerated.

Praise for good effort and improvement from the teacher and fellow students is the most effective way to build positive attitudes about learning and feelings of selfworth by our students. Negative reinforcement must be used sparingly if at all.

· A Coach to Young Palauan Studies Experts

Ultimately, the proof of the curriculum and the instructional approach will be in how well our students are able to sensitively problem-solve so that Palauan ways and things are promoted, valued, and maintained. The only way that the students can become skilled in this manner of living is through practice.

Just as a coach guides the members of an athletic team through drills and practice sessions so that they will be ready and prepared when confronted with the real competitive situation, the students in our Palauan Studies classrooms require "coaches," too. The students need an instructional approach which is not filled with teacher's lectures and readings, but instead with accurate information followed by ample classroom time organized with many opportunities for the students to practice their communication, thinking, and decision-making for Palauan Studies-related situations.

In this way, when confronted with the actual real life situation, the students will be ready to put into constructive action what they have learned and practiced at school.

The core of all language learning and teaching needs to be comprehension. Meaning needs to be emphasized first and foremost. Excitement and incentives to read, speak, write, and communicate expertly in Palauan need to be developed and ever present.

Palau Ministry of Education / Palauan Studies Curriculum Framework

Activities to record traditional knowledge are critical. Every opportunity should be made to document all the various aspects of Palauan culture so that many generations to come may be able to benefit from this knowledge. Oral history, and now, written history will make it that much more possible for the continuation of Palauan culture.

With the assistance and commitment of each teacher, the school must build an intensely pro-literate environment for the teaching and learning of Palauan. The development of healthy and strong cultural identities will be complicated if the students' reading materials, text, and media images are not their own.

The adoption of a uniform spelling system would also be helpful to the local literacy campaign. The discussion over the Palauan orthography persists, and it is important to be knowledgeable about the various issues and to work with other community members in order to bring resolution to this issue.

Especially with the teaching of Palauan Studies, the community should definitely be the classroom. Rich resources and experts for this subject area can and should come from the school's community.

A Learning Styles Specialist

Our students need teachers who will work to make sure that the needs of *all* students in the class are being met. Oftentimes this means delivering the lessons using a variety of approaches. From experience we know that some students learn information better when they can both hear and see what is being discussed. Also, most of us remember more of the content being studied when we have been provided with opportunities to touch or actively get involved with the information being discussed.

Whenever possible, the teacher is strongly encouraged to vary the ways the Palauan Studies information is presented. It is much more interesting and meaningful to the students when the teacher incorporates audio-visuals, field trips, role plays, guest speakers, films, props, etc., into his or her instructional approach.

All students need to gain in terms of their Palauan Studies knowledge and skills. While it may be easier to pace our lessons and activities to the "brightest" students in the class, this approach does not serve the best interest of the class, community, or curriculum. The mental, emotional, and Palauan Studies needs of all students

should be kept in focus. A resourceful teacher will enlist the help of the quicker students to help with the instruction of those who are slower to grasp the information. This approach is very useful and is almost always beneficial to all parties.

Translator

Occasionally, there will be content covered in the curriculum which is a little removed from the students' immediate environment and experience base, but was included in the curriculum because there is a feeling that this information will eventually be helpful and necessary for the students. In these incidences, it is important for the teacher to act as a "translator" to help bridge the students' understanding of the material.

The teacher should use his or her knowledge of both the curriculum and the local resources and environment so as to draw relevant and clear examples that will help the class better understand the ideas and concepts which might be otherwise difficult for them to comprehend.

The more relevant the teacher can make the curriculum, the better. Please take every opportunity to do this. The framework is merely the conceptual skeleton which requires a creative, dedicated teacher to help it come alive for the students.

· Parent/Community Involvement Specialist

When the families and parents of our students are aware of what is being taught to their children via the Palauan Studies curriculum, there are more opportunities for the lessons to be actually reinforced and learned. It is important for the teacher to keep the students' parents and families well-informed about the curriculum and, whenever possible, enlist their assistance in helping their children learn the Palauan Studies information and strategies that are being taught in school.

It is strongly encouraged to use the classroom environment via attractive posters, black boards, posted pictures, etc., to communicate to all what is being learned and valued in the classroom.

CHAPTER 5

The Scope and Sequence of the Palauan Studies Curriculum

The Goals of the *Palauan Studies Curriculum Framework* are to Develop Students Who...

MAJOR ATTITUDES

- Feel effective in their ability to use their enhanced communication abilities to more constructively participate as a contributing member of their family, society, country, and world.
- Take pride in their heritage and believe that the preservation, promotion, and maintenance of Palauan culture and language is vitally important.
- Appreciate and respect Palauan values and beliefs, e.g., respect for elders, cooperation, resourcefulness, conservation, responsibility, loyalty to family, etc.
- Believe in protecting those things that have been traditionally valued within the culture, i.e., relationships, land, the reef, traditional places, Palauan money, etc.
- Feel confident in their ability to discuss and carry out their roles in traditional customs and practices.
- Take pride in their ability to use their knowledge of the history and geography of Palau to make wise decisions about Palau's future.
- Enjoy and appreciate excellence in traditional dancing, weaving, chanting, singing, carving, and other forms of artistic expression.
- Feel effective in their ability to use their communication skills to more constructively participate as a contributing member of their family, society, country, and world.
- Feel confident to communicate in Palauan through speech and writing for a variety of personal, practical, academic, and creative situations and needs.

- Appreciate, respect, and value the differences and similarities between Palauan and other languages, and between the people of Palau, and those of other cultures.
- Find direction and deepening awareness of themselves through hearing and reading important Palauan "classics" (legends, stories, songs, chants, various writings, speeches, etc.) that address important Palauan values and issues.
- Find satisfaction and deepening sense of pride and self-worth as they write and feel confident in their own abilities to compose, express their feelings and opinions, and take on the creative role of "author."
- Feel confident and eager to problem solve and seek out new ideas and information because of their competencies with various Palauan information resources.

Student Grade-by-Grade Objectives for the Palauan Studies Curriculum Framework

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES o
A. Values	Students will be able to	Students will be able to
& Things of Value	Demonstrate knowledge of the twenty most important values of Palauan culture.	1.1 Discuss why it is important to treat themselves and others with respect.
		1.2 Discuss what are the consequences of not following the advice and directions of their elders.
		1.3 Discuss why good manners are important.
		1.4 Discuss why it is important for children to always show respect for their elders.
		1.5 Describe the love that parents have for their children.
		1.6 Name and describe many things in nature that are beautiful.
		1.7 Demonstrate how to be polite to one another.
		1.8 Compare and contrast how they are similar and different from one another, how the differences are good, and how people different from themselves
		1.9 Discuss the importance of respecting the property of others.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
A. Values & Things of Value (continued)	Students will be able to 2. Identify and discuss the skills, knowledge, and things that have been traditionally of great value to Palauans.	2.1 Discuss the natural beauty of Palau. 2.2 Discuss how much family and clan members love children and show their love for them in many ways.

**************************************		071112111111111111111111111111111111111
STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
C. Social Relationships,	Students will be able to	Students will be able to
Roles, & Responsibilities	8. Demonstrate knowledge of names used to describe various relationships.	8.1 List the names used to describe their relationship to immediate family members.
	9. Discuss and describe the nature of traditional roles, responsibilities, and relationabine between members	9.1 Describe and discuss the traditional role and responsibilities of children in the family.
	ships between members within a family.	9.2 Discuss how children and elders traditionally related to one another.
		9.3 Identify and discuss the many ways that they can help the family even though they are young.

D. Customs & Practices 17. Demonstrate and explain traditional ways of showing respect toward various populations, e.g., elders, children, etc. Students will be able to 17.1 Discuss and demonstrations should show respect for should show re	te how children or their elders.
17. Demonstrate and explain traditional ways of showing respect toward various populations, e.g., elders, children, etc. 17.1 Discuss and demonstrate should show respect for the should show respect	or their elders.
e.g., elders, children, etc. 17.2 Discuss and demonstrate	te how children
17.3 Discuss and demonstrate should show their responders.	
17.4 Discuss and demonstrates should show respect for and the things in the classical states.	or the teacher

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
F. Geography	Students will be able to	Students will be able to
	35. Demonstrate knowledge about the geography of their own villages.	35.1 Correctly identify the name of their village and be able to describe the physical characteristics about it.
		35.2 Demonstrate their knowledge of their village through their drawings and art work.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
G. Crafts & Artistic Expression	Students will be able to 38. Demonstrate the ability to weave a number of traditional items	Students will be able to 38.1 Make a simple ball, whistle, and pin wheel (bdun, ngaok, cheberdored).
	43. Demonstrate expertise in performing a variety of traditional dances, songs, and chants.	43.1 As a class, without the assistance from the teacher, demonstrate and sing at least <i>five</i> of the Palauan songs identified in the curriculum for their grade level.
		43.2 Discuss the custom of chanting, and demonstrate the chant that is identified in the curriculum for their grade level.
,		43.3 As a class, without the assistance of the teacher, demonstrate at least two of the Palauan dances identified in the curriculum for their grade level.

STRAND/TOPIC/FOCUS	GOAL *,	STUDENT OBJECTIVES
H. Listening	Students will be able to	Students will be able to
	44. Have numerous opportunities to listen to quality stories, songs, chants, poems, dramas, speeches, audio tapes, readings, etc., which are highly interesting and relevant to them.	44.1 Listen to numerous stories about topics which are familiar and interesting to first graders.
		44.2 Identify correctly and discuss at least five Palauan children's stories that were read aloud to them in class.
		44.3 Identify correctly and discuss at least five familiar Palauan songs that were read and sung to them in class.
		44.4 Identify correctly and discuss at least one Palauan chant or poem that was chanted or read aloud to them in class.
	45. Have numerous opportunities to hear Palauan practiced, spoken, and read aloud by them, their classmates, their teachers, and other experts.	45.1 Listen daily to highly interesting, predictable, repetitive stories, poems, and songs in order to get comfortable with the rhythms, patterns, and common phrasing of Palauan.
		45.2 Listen to slides, films, filmstrips, videotapes, and audio tape recordings of highly interesting guest speakers, stories, poems, and songs where expert readers and singers model their skills.
		45.3 List at least <i>two</i> different people whom they have heard read a picture book story, poem, or speech to their class.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
H. Listening	Students will be able to	Students will be able to
(continued)	46. Think about what they hear and listen well enough to identify, discuss, and summarize key elements, i.e., the directions, the theme/main idea, sequence of events, the speaker or reader's motiva-	46.1 Identify the main characters, summarize the theme/main idea and accurately recall the sequence of events for at least <i>five</i> of the children's books that were read to them during the school year.
	tion, plot, setting, main char- acters, characterizations, etc.,	46.2 Recall simple class instructions in their own words accurately.
	of what is read or spoken to them.	46.3 Recall stories or songs that they and specific classmates liked during the school year and discuss why:
		46.4 Proficiently participate in TPR (Total Physical Response) activities and play games where they are required to listen and respond to verbal directions with specific body movements. e.g., "Simon Says," "Hide 'n Seek," etc.
	48. Discuss and demonstrate how a courteous audience behaves.	48.1 Discuss why making noise when someone is trying to share a story with the class is not nice.
	49. Effectively listens to nonverbal cues.	49.1 Discuss how people can tell when another is feeling about something by looking at their facial expressions.
		·

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
I. Speaking & Reciting	Students will be able to	Students will be able to
a rectiming	50. Have many opportunities to be engaged in discussion about things that are important to them, that they are experiencing and feeling, and about	50.1 Talk about <i>two</i> of their favorite books.50.2 Talk about their favorite subject or activity in school.
	which they are reading and studying.	50.3 Talk about things that make them feel happy, sad, excited, and angry.
	51. Express themselves in speech with clarity and precision for many <i>practical</i> situations, i.e.,	51.1 Respectfully and politely greet someone older.
	asking questions, giving directions, participating in everyday conversations, sharing their feelings and experiences,	51.2 Introduce themselves or a friend, and share personal information about themselves.
	participating in meetings, giving speeches, etc.	51.3 Politely ask permission to do something or to have something.
		51.4 Ask for help politely.
		51.5 Ask someone to join them in play.
		51.6 Ask for directions.

ST	RAND/TOPIC/FOCUS	GOAL	- 444	STUDENT OBJECTIVES
I.	Speaking & Reciting (continued)	Students will b 52. Express themse with clarity and many creative ar situations, i.e., t storytelling, rec sharing songs, p presenting skits etc.	lives in speech a precision for and recreational relling jokes, iting poems, playing games, soor dramas, 52.3	Play games where they required to locate a hidden object in the classroom. Independently recite a rhyme, song, or poem that they like. Play games where they give verbal directions or ask permission and listen well enough to successfully play games, e.g., "Simon Says," "Mother, May I," etc. Invent their own new phrase for a song or chant. Play games (from recommended list of games for the Palauan studies curriculum) with each other, especially those which require them to use their skills for listening, speaking, sharing, giving instructions, asking questions, etc.

ST	RAND/TOPIC/FOCUS		GOAL		STUDENT OBJECTIVES
I.	Speaking & Reciting (continued)	53.	Express themselves in speech with clarity and precision for many <i>academic</i> situations, i.e. participating in small or large group class discussions, sharing information with classmates, brainstorming, giving different reports, debating questions, dramatic readings, etc.	53.2 53.3	
		54.	Confidently read aloud chorally and individually various works (letters, stories, poems, newspaper articles, own compositions) with effective use of voice, volume, pace, tone, intonation, pronunciation, gesture, facial expressions, etc.	54.2	Successfully read in unison with classmates <i>five</i> big picture books that were read aloud to them in class. Successfully sing in unison with classmates <i>five</i> rhythmical and repetitious songs that were read and sung to them in class. Successfully recite in unison with classmates <i>five</i> rhythmical and repetitious poems that were read aloud to
		55.	Capably retell stories in their own words.	55.1	them in class.

STRAI	ND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
&	peaking Reciting continued)	Students will be able to 56. Sensitively and respectfully disagree with another's point of view in discussions.	Students will be able to 56.1 Discuss why it is important not to make fun of someone who says something they do not think is right or that they disagree with.
		58. Capably use body movements skits, and dramatizations to convey meaning.	 58.1 Demonstrate reciting at least five rhymes, songs, or chants with body movements. 58.2 Correctly pantomime body movement responses to at least five TPR commands.

STF	AND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
J.	Viewing, Reading,	Students will be able to	Students will be able to
	& Literature	60. Have many opportunities to view and read a large variety	60.1 Associate print to pictures.
		of well-written stories, books, plays, pamphlets, articles,	60.2 Associate what is spoken with words.
		posters, charts, diagrams, printed materials, etc., which	60.3 Associate words with ideas.
		are highly interesting and well illustrated.	60.4 Know that print carries meaning.
			60.5 Recognizes their own name in limited contexts.
			60.6 Correctly identify and discuss at least five children's picture books that were read aloud to them in class.
			60.7 Correctly identify and discuss at least three rhythmical and repetitious songs that were read and sung to them in class.
			60.8 Correctly identify and discuss at least three rhythmical and repetitious poems that were read aloud to them in class.
			·

ST	RAND/TOPIC/FOCUS		GOAL		STUDENT OBJECTIVES
J.	Viewing, Reading, & Literature (continued)	61.	Students will be able to Have numerous opportunities to read their thoughts, their stories, and about their own realities.	61.2	Correctly identify and discuss at least five traditional Palauan children's stories that were read aloud to them in class. Correctly identify and discuss at least five Palauan songs read and sung to them in class. Read statements that they made in response to a story reading which were recorded verbatim by their teacher. Read simple books about themselves made by each student with the help of the teacher.
		62.	Independently select and read various materials from a library for both pleasure and personal enrichment.	62.1	Select reading material that interest them from the class library and participate in Sustained Silent Reading (SSR) for at least six minutes, four times per week.

STF	AND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
J.	Viewing, Reading,	Students will be able to	Students will be able to
	& Literature (continued)	64. Read with confidence various practical writings related to	64.1 Correctly find their names somewhere posted in the classroom.
		successfully carrying out various everyday activities, e.g., labels, signs, charts, posters, lists, instructions, notes,	64.2 Correctly identify at least <i>two</i> posters in their classroom and discuss what they are about.
A VICE OF A VICE AND A VICE OF A VIC		memos, letters, recipes, pre- scriptions, receipts, bills of sale, forms and applications, job announcements, newspa- per and magazine articles, laws, legislation, etc.	64.3 Correctly count certain objects from one to ten.
THE THE PROPERTY OF THE PROPER		65. Analyze and find with ease the main ideas, main characters, theme, sequence of events, and cause and effect relationships, plot, setting, characterization, points of	65.1 Correctly order the sequence of events of a story using picture cards which are shuffled and out of order for at least <i>three</i> of the stories that were studied in class.
		view, etc., in what they read.	65.2 Correctly match central illustrations for stories with their titles.
Annual property to the second		66. Proficiently read illustrations, graphs, maps, charts, posters,	66.1 Correctly find their name from a list.
		diagrams, and other visual displays.	66.2 Correctly find the teacher's desk from a seating chart of their classroom.
		67. Demonstrate familiarity and knowledge about significant Palauan and Pacific Region children's, intermediate, and	67.1 Correctly identify and discuss at least three children's books that are authored by Pacific Region authors.
		adult literary classics, their authors, and the period and conditions in which they were written.	67.2 Identify and discuss at least <i>five</i> Pacific Region writers and authors and tellat least <i>two</i> things that they know about each writer.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
K. Composition & Writing	Students will be able to	Students will be able to
& Witting	69. Have many opportunities to write about things that are important to them, that they	69.1 With the help of the teacher, illustrate and author a simple book about themselves and their family.
	are experiencing and feeling, and about which they are reading and studying.	69.2 With the help of the teacher, make a list summarizing all the interesting and important things that were covered during the week in Palauan studies.
		69.3 Compose a new ending for a known story that reflects how they think it should have ended.
	70. Use various literary works and forms as models and	70.1 Write their own name.
	compose their own versions of these writings.	70.2 Approximate print in their drawings.
		70.3 Complete at least <i>three</i> simple writing frames.
	71. Proficiently create illustrations, timelines, graphs, maps, charts, and diagrams to	71.1 Illustrate the main characters for at least <i>four</i> of the stories or legends that they have studied.
	communicate their ideas.	71.2 Make at least three illustrations for a story that they make up.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
K. Composing & Writing (continued)	72. Express themselves in writing with clarity and precision for many academic situations, i.e., responses to questions, writing stories, notes, reports, poems, skits, plays, summaries, book reviews, essays, research papers, outlines, journal entries, lab reports, trip summaries, technical reports, etc.	 Students will be able to 72.1 Draw pictures capturing what they liked best about the stories that they are studying. 72.2 Make illustrated book covers for at least <i>three</i> of the stories that they read in class. 72.3 Capture the poems that they hear in class with pictures and simple sentences.
	73. Write with clarity and confidence about their feelings, points of view, and perceptions of everyday occurrences and the world around them for many personal and creative situations, e.g., diaries, letters, poems, songs, stories, skits, dramas, etc.	 73.1 Dictate a <i>one</i> sentence statement to go into a class letter to a local children's story author about one of the author's books. 73.2 Compose simple sentences about the natural beauty which surrounds them. 73.3 Make up a story about an imaginary friend.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
K. Composing & Writing	Students will be able to	Students will be able to
(continued)	74. Competently compose practical everyday items used to communicate ideas, i.e., labels, signs, lists, instructions, notes,	74.1 Proficiently copy <i>three</i> simple recipes for things they made in class from the board.
	memos, letters, recipes, pre- scriptions, receipts, bills of sale, forms and applications,	74.2 Complete at least <i>two</i> simple thank you for helping them cards for their elders.
	sharing of their feelings and everyday experiences, recording meetings, etc.	74.3 Complete a list of <i>five</i> things that they would really like to have.
	76. Discuss and demonstrate familiarity with writing using various formats, i.e., short	76.1 Correctly complete at least <i>one</i> example of a short note.
	stories, fiction, nonfiction, poetry, novels, diaries, journal entries, autobiographies and biographies, essays, narratives, expository writings, dramas, comedies, tragedies, etc.	76.2 Correctly complete at least two examples of a short story.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
L. Critical Thinking	Students will be able to	Students will be able to
	78. Think about what they hear and read and respond to these ideas with integrated writing, speaking, and listening activities.	78.1 Participate weekly in speaking, writing, art, drama, and additional reading for field trip activities which are direct extensions of the reading books that they are studying.
	79. Think with increasing complexity (i.e., recall, sequence,	79.1 Recall the sequence of a story.
	summarize, group, delete, compare and contrast, pre- dict, elaborate, expand upon,	79.2 Correctly complete Rebus and Cloze versions of familiar stories.
	infer, apply, evaluate, etc.).	79.3 Compare and contrast the actions and behaviors of <i>two</i> characters in a story.
		79.1 From a story or article title and its first sentence, predict the content of the passage and identify topics the passage will cover.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
L. Critical Thinking (continued)	Students will be able to 82. Interpret and discuss with ease the relevancy of what they read in terms of their understanding, feelings values, and experience.	 Students will be able to 82.1 Discuss at least three of the books that they selected for their SSR activity and why they selected them. 82.2 Identify at least one character that somewhat reminded them of themselves or someone they know. 82.3 Identify at least one story that particularly made them feel good. 82.4 Identify at least one song, story, or chant that has special meaning for them or someone they know.
	83. Make predictions and judgements about what they read, hear, and view, and justify their conclusions.	83.1 Justify conclusions drawn about different characters in a story.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
L. Critical Thinking (continued)	Students will be able to 84. Consider what they read and	Students will be able to 84.1 Give at least <i>one</i> example of a charac-
	hear in terms of the human, ethical, and cultural values that they reflect and promote.	ter that they thought was a good person and discuss why they thought so. 84.2 Give at least <i>one</i> example of a story,
		song, or poem that helped them understand more about how to be a good citizen of Palau.
		84.3 Give at least <i>one</i> example of a story, song, or poem that they think tried to teach them something about respect.
	·	84.4 Give at least <i>one</i> example of a story, song, or poem that helped them understand more about: sharing, nature and natural beauty, the importance of good manners, parental love, respecting the property of others, or the importance of respecting our elders.
	89. Effectively participate in all phases of group problem solving, i.e., problem identifi-	89.1 Actively participate in class meetings. 89.2 Politely demonstrate introducing all
	cation, brainstorming, infor- mation retrieval, synthesizing information, proposing a	the members of their small work group.
	course of action for resolution of the problem, plan modification, evaluation of solution.	89.3 Work in small groups to answer together <i>tliree</i> questions that the teacher asks them about one of the stories read to them during the year.

M. Vocabulary Development	Students will be able to 91. Have strong enough vocabulary and language skills so as	Students will be able to 91.1 Name, label, and describe common
Zevelopmeni	lary and language skills so as	91.1 Name, label, and describe common
	to read proficiently Palauan	items found in their homes and class- room.
	language newspapers.	91.2 Discuss and use various descriptive adjectives (color, shape, size, texture, etc.).
		91.3 Discuss and use various terms used to describe their feelings.
		91.4 Discuss and use various terms used to describe everyday actions.
		91.5 Discuss and use various terms used to describe different activities associated with children's play.
		91.6 Discuss and use various terms used to identify various parts of the body.
		91.7 Discuss and use various terms used to identify various times of the day and year.
		91.8 Discuss and use various terms used to describe the location of things.
		91.9 Discuss and use various terms used to describe the things people commonly wear.
		91.10 Discuss and use various terms used to describe the various member of the family.
		91.11 Match key vocabulary words on pre- pared cards with words embedded in a story.

STRAND/TOPIC/FOC	us	GOAL			STUDENT OBJECTIVES
N. Structure & History of the English Language	95.	Students will be Recognize com and patterns of	mon sounds	95.1	Students will be able to Know the letters of the Palauan alphabet.
	97.	Identify and di conventions of punctuation, ca and spelling.	writing—	97.1	Know that sentences begin with capital letters and end with some punctuation mark.
		,			
		,			

ENGLISH LANGUAGE FIRST GRADE

English Language Arts

CURRICULUM FRAMEWORK



PALAU PUBLIC SCHOOLS

Developed by

The English Language Curriculum Framework Committee and the English Program Staff 1988 – 1992 The Palau Ministry of Education is indebted to Masa-Aki N. Emesiochl, director for the Bureau of Curriculum and Program Development, who provided the inspiration and means for creating the first set of Curriculum Frameworks for Palau Public Schools. From their inception, his vision for these frameworks as a critical tool in the process of curriculum renewal and improvement has been the driving force for their ultimate completion. We are grateful for his unwavering commitment toward the educational advancement and future dreams of our children.



The development of the English Language Arts Curriculum Framework was partially funded by the Chapter II program.

The opinions expressed in this framework do not necessarily reflect the position or policies of the United States Department of Education, and no official endorsement by the DOE should be inferred.

This framework was developed by the Bureau of Curriculum and Program Development, Ministry of Education, Republic of Palau.

foreword

Curriculum renewal and improvement is an ongoing process. For many years now, it has been very clear that the Ministry of Education's improvement efforts would be greatly facilitated if frameworks for all our content areas could be completed. This important task is not a small one. Since the Ministry's initiation in 1986 of its Five-Year Improvement Plan, the dialogue and work to detail, refine, review, and reach consensus on what knowledge is most important to teach for each discipline for twelve years of schooling has been foremost in the work and thoughts of the Ministry's personnel.

These important maps, our frameworks, need to take Palau's students into the next century with strong foundations and skills to deal with the community and world around them. This framework is one of seven completed core frameworks which when implemented will help everyone involved with education in Palau to be much clearer on our task, mission, and prescribed program for each student. We believe that our frameworks are finally ready to help us chart a course to many improvements in terms of our instructional program, staff development, materials development, and materials adoption for the next several years, and we are extremely excited.

Of course, it is in the implementation of our frameworks that we will be able to see the real strength of our commitments and ideas. But if the development process for the frameworks and the many people who gave of themselves often beyond what they thought possible is any indication, we are confident that these next few years for education in Palau will be bright and will bring about many significant improvements.

Our overall goals for all our students is to prepare them appropriately to function as informed and effective citizens of our Republic, to succeed in the world of work, and to attain a level of personal satisfaction and happiness. The teaching of the English language and the things outlined in this framework brings us one step closer to delivering to our students and communities the kind of educational experiences that will yield for us our desired harvest.

As our world and our understanding of it changes, so must our curriculum. We would like to commend the many individuals who worked on this English Language frame-

work and their endeavors to update and improve how and what it is we teach our students in terms of English language development over the next several years. Noticeably, our new curriculum framework is improved in the following ways:

- 1. More emphasis on meaningful, relevant and useful activities, materials, and print-rich environments;
- 2. Focus on the teaching of reading, writing, speaking, and listening not as separate skills but as interrelated skills;
- 3. Stronger promotion of story and literature based strategies;
- 4. Greater clarity about our purpose and what instructional approaches might prove more successful with our students, e.g., language experience approach, whole language approach, shared reading, sustained silent reading, etc.;
- 5. More emphasis on students and teachers as authors, and the accomplished writers and written works of the Pacific Region; and
- 6. Strengthened efforts on guiding the students to develop higher order thinking skills.

Still much work lies ahead for us all. There is a great need to make new materials, and at the same time provide better, more relevant training for our teachers. But nothing is more important than the commitment and support of our staff, teachers, and community working together to promote excellence in the teaching of English. We feel hopeful about this framework and believe that it will be a useful tool to help us do just that.

Masa-Aki N. Emesiochl

Mmesioch

Director

Bureau of Curriculum & Program Development

Palau Ministry of Education

1993

CHAPTER 1 Rationale for the Teaching of English

To prepare students to function as informed citizens who function effectively in the world of work, and who are capable of attaining a high level of success and personal fulfillment is the mission of the Ministry of Education. As with the teaching of our Palauan language, the teaching of the English language is viewed as a priority if our educational program is to be relevant and successful.

Without language, there is no thought; and without strong, well-developed language skills—listening, speaking, writing, and reading, students would be severely handicapped and poorly prepared for their world. For the vast majority of our students, Palauan is their first language; however, it is no longer the case that proficiency only in our first languages is sufficient to be effective and successful in today's Palau. While English is not the dominant language in our homes, it is the dominant language of our legal system, political system, economy, schools via the available instructional materials, scientific writings, pleasure reading, technical manuals, mass media, and major information resources.

Presently, the availability of instructional materials for all the core content areas—Math, Language Arts, Science, Social Studies, in our first language is severely limited. Mostly all of our text materials are published in English. Without a strong command of English, school success is virtually impossible. As well, English is now almost a basic requirement for most jobs available to our young people. It is a fact that the ability to secure a better paying job is greatly improved if the applicant can confidently and competently communicate in at least Palauan and in English.

Those students who graduate our school program who master a certain fluency and proficiency in English will almost assuredly have many more options available to him/ her in terms of post-secondary training. Unfortunately, the reality is that while many of our students after high school do begin some kind of training or schooling, only those who have strong English language skills are very successful and emerge with opportunities for graduate studies available to them.

Taught correctly and learned well, literacy in English can mean for all young Palauans opportunities to first-hand participate as knowledgeable, informed citizens of a global community. New ideas, new practices, new discoveries, crises, current events, and major world occurrences are much more accessible. The opportunity to gather a well informed opinion or approach to a problem is greatly improved with English as well as Palauan communication skills.

Fluency in another language is the most powerful passport into another world, and the English-speaking world covers a vast and varied region. Many people throughout the world are both schooled in their first language and in English. Because so many people in the world tend to use English, Palauans who are fluent in English have many more opportunities to experience personal and professional relationships with English-speaking people internationally.

Our own Palauan culture and history is rich. With our English abilities, the opportunities to educate, inform, and communicate to the outside world about Palau and things Palauan become limitless. Written records about our way of life is one way of guaranteeing the perpetuation of our culture. In terms of human development, because a vast quantity of the world's great literature and compositions are available in English, for the English-proficient person who has learned to read for pleasure and enlightenment, a rich world of ideas is only volumes away. Through reading about the human condition and important social themes, our young people will have many more opportunities to explore feelings, depths of emotions, and numerous human dilemmas and to formulate and integrate new strategies for happier, more productive, and positive ways of relating with one another.

Palau Ministry of Education / English Language Arts Curriculum Framework

Also, the study of a different language often affords one the important opportunity to value and understand one's first language and appreciate it and one's own culture in a meaningful way. While this is not one of the most significant reasons why English must be taught, it is a side benefit that we can enjoy and be enriched by.

Of the Ministry's seven major goals, none of them can be accomplished if our students do not have strong English language competencies. All seven of them directly or indirectly necessitate the learning of English by all the students. They are as follows:

GOALS

- 1. To prepare students as responsible citizens of Palau by emphasizing their individual and collective duty to contribute to the welfare of the Republic.
- 2. To instill in students the value of Palauan Identity and unity through the study of the local language, customs, music, art, politics, economics and social characteristics of the Republic.
- 3. To foster awareness and knowledge of Palau, the rest of the world and the role of Palau in the world.
- 4. To provide students with basic language skills (i.e. comprehension, speaking, reading, and writing) in both Palauan and English.
- 5. To provide student with basic skills in the areas of Math, Science, and Social Studies.
- 6. To provide students with adequate preparation for college or vocational education.
- 7. To provide students with opportunities (e.g., information, counseling, and limited scholarships) for post-secondary education outside of Palau with focus on careers identified as priorities for the Republic.

CHAPTER 2

The Goals and Outcomes of the English Language Arts Curriculum

The Goals and Outcomes of the English Language Arts Curriculum Framework are to Develop Students Who...

MAJOR ATTITUDES

- Feel effective in their ability to use their enhanced communication abilities to more constructively participate as a contributing member of their family, society, country, and world.
- Feel confident to communicate in English through speech and writing for a variety of personal, practical, academic, and creative situations and needs.
- Appreciate, respect, and value the differences and similarities between Palauan and the English language, and the people of Palau, and those of other cultures.
- Enjoy, appreciate, and feel enriched by the great literary "classics" and compositions of the Pacific and the world available in English.
- Find satisfaction and deepening sense of pride and self-worth as they write and feel confident in their own abilities to compose, express their feelings and opinions, and take on the creative role of "author."
- Feel confident and eager to problem solve and seek out new ideas and information because of their competencies with the English language and various information resources.
- Find direction and deepening awareness of themselves through their readings of various writings that address important values and conditions throughout the world.
- Enjoy language learning and understand the value of being multilingual.

KNOWLEDGE & SKILLS

A. Listening

- 1. Have numerous opportunities to listen to quality stories, songs, chants, poems, dramas, speeches, audio tapes, readings, etc., which are highly interesting and relevant to them.
- 2. Have numerous opportunities to hear English practiced, spoken, and read aloud by them, their classmates, their teachers, and by other experts.
- 3. Think about what they hear and listen well enough to identify, discuss, and summarize key elements, i.e., the directions, the theme/main idea, sequence of events, the speaker or reader's motivation, plot, setting, main characters, characterizations, etc., of what is read or spoken to them.
- 4. Discriminate effectively between someone who is a model and effective reader, storyteller, speech maker, conversationalist and someone who is not.
- 5. Discuss and demonstrate how a courteous audience behaves.
- 6. Effectively listens to non-verbal cues.
- 7. Recognize various forms of speech and writing from what they hear, e.g., conversations, small and large group discussions, directions, poems, songs, chants, speeches, announcements, stories, skits, dramas, reports, etc.

B. Speaking and Reciting

- 8. Have many opportunities to be engaged in discussion about things that are important to them, that they are experiencing, feeling, and about which they are reading and studying.
- 9. Express themselves in speech with clarity and precision for many *practical* situations, i.e., asking questions, giving directions, participating in everyday conversations, sharing their feelings and experiences, participating in meetings, giving speeches, etc.
- 10. Express themselves in speech with clarity and precision for many *creative* and *recreational* situations, i.e. telling jokes, storytelling, reciting poems, sharing songs, playing games, presenting skits or dramas, etc.
- 11. Express themselves in speech with clarity and precision for many *academic* situations, i.e. participating in small or large group class discussions, sharing information with classmates, brainstorming, giving different reports, debating questions, dramatic readings, etc.

- 12. Confidently read aloud chorally and individually various works (letters, stories, poems, newspaper articles, own compositions) with effective use of voice, volume, pace, tone, intonation, pronunciation, gesture, facial expressions, etc.
- 13. Capably retell stories in their own words.
- 14. Sensitively and respectfully disagree with another's point of view in discussions.
- 15. Discuss and demonstrate how effective speakers must modify what they are saying or reading aloud in order to be effective and sensitive to their audiences.
- 16. Capably use body movements, skits, and dramatizations to convey meaning.
- 17. Persuasively present a speech or an argument and orally sway the attitude of an audience of their peers and teachers.

C. Viewing, Reading, and Literature

- 18. Have many opportunities to view and read a large variety of well written stories, books, plays, pamphlets, articles, posters, charts, diagrams, printed materials, etc., which are highly interesting and well illustrated.
- 19. Have numerous opportunities to read their thoughts, their stories, and about their own reality.
- 20. Independently select and read various materials from a library for both *pleasure* and *personal* enrichment.
- 21. Independently select and read various materials from a library for *academic* purposes.
- 22. Read with confidence various *practical* writings related to successfully carrying out various everyday activities, e.g., labels, signs, charts, posters, lists, instructions, notes, memos, letters, recipes, prescriptions, receipts, bills of sale, forms and applications, job announcements, newspaper and magazine articles, laws, legislation, etc.
- 23. Interpret and discuss with ease the relevancy of what they read in terms of their understanding, feelings, and experience.
- 24. Identify and discuss various readings that help them understand what it is to be a good human being and to clarify their values and moral judgement.

- 25. Analyze and find with ease the main ideas, main characters, theme, sequence of events, and cause and effect relationships, plot, setting, characterization, points of view, etc., in what they read.
- 26. Proficiently read illustrations, graphs, maps, charts, posters, diagrams, and other visual displays.
- 27. Identify and discuss various strategies and context cues they use in helping them to read various kinds of writing, including content-specific writing, e.g., text materials and resource materials for Science, Math, Health, Social Studies, Palauan Studies, Art, Music.
- 28. Demonstrate familiarity with reading a variety of literary genres, including, short stories, fiction, nonfiction, poetry, novels, diaries, journal entries, autobiographies and biographies, essays, narratives, expository writings, dramas, comedies, tragedies, etc.
- 29. Demonstrate familiarity and knowledge about significant Palauan and Pacific Region children's, intermediate, and adult literary classics, their authors, and the period and conditions in which they were written.
- 30. Demonstrate familiarity and knowledge about significant children's, intermediate, and adult literary classics written in English from throughout the world, their authors, and the period and conditions in which they were written.
- 31. Comprehend enough background information so as to understand inferences, idioms, expressions, points of view, and the irony or humor in what they read.
- 32. Discern what is an excellent piece of writing and when an author has been effective.

D. Composing and Writing

- 33. Have many opportunities to write about things that are important to them, that they are experiencing, feeling, and about which they are reading and studying.
- 34 Use various literary works and forms as models and compose their own versions of these writings.
- 35. Proficiently create illustrations, timelines, graphs, maps, charts, and diagrams to communicate their ideas.

Palau Ministry of Education / English Language Arts Curriculum Framework

- 36. Express themselves in writing with clarity and precision for many *academic* situations, i.e. responses to questions, writing stories, notes, reports, poems, skits, plays, summaries, book reviews, essays, research papers, outlines, journal entries, lab reports, trip summaries, technical reports, etc.
- 37. Write with clarity and confidence about their feelings, points of view, and perceptions of everyday occurrences and the world around them for many *personal* and *creative* situations, e.g., diaries, letters, poems, songs, stories, skits, dramas, etc.
- 38. Competently compose *practical* everyday items used to communicate ideas, i.e., labels, signs, lists, instructions, notes, memos, letters, recipes, prescriptions, receipts, bills of sale, forms and applications, sharing of their feelings and everyday experiences, recording meetings, etc.
- 39. Demonstrate skill and familiarity with all phases of the writing process (pre-writing, drafting, revising, and final editing), and use feedback on their writings so that they end up clear, interesting, and well-written compositions.
- 40. Discuss and demonstrate familiarity with writing using various formats, i.e., short stories, fiction, nonfiction, poetry, novels, diaries, journal entries, autobiographies and biographies, essays, narratives, expository writings, dramas, comedies, tragedies, etc.
- 41. Persuasively present an argument in writing to reach a particular audience and sway their attitude about something.
- 42. Effectively use their writing skills to help them improve the conditions around them.
- 43. Demonstrate knowledge of contemporary word processing tools.

E. Critical Thinking

- 44. Think about what they hear and read and respond to these ideas with integrated writing, speaking, and listening activities.
- 45. Think with increasing complexity (i.e., recall, sequence, summarize, group, delete, compare and contrast, predict, elaborate, expand upon, infer, apply, evaluate, etc.).
- 46. Identify and discuss various context clues they use in helping them to comprehend various kinds of writing, including content specific writing, e.g., text materials and resource materials for Science, Math, Health, Social Studies, Palauan Studies, Art, and Music.

- 47. Distinguish between fact and opinion in what they read, view, and hear.
- 48. Analyze stories for deeper meaning and understand inferences.
- 49. Make predictions and judgements about what they read, hear, and view and justify their conclusions.
- 50. Consider what they read and hear in terms of the human, ethical, and cultural values that they reflect and promote.
- 51. Recognize propaganda techniques in what they read, view, and hear.
- 52. Share their awareness of various aesthetic values, i.e., writing style, wit, use of imagery by the authors that they study.
- 53. Proficiently diagram their ideas as an effective way of organizing information.
- 54. Confidently use various information resources to investigate questions and get answers.
- 55. Effectively participate in all phases of group problem-solving, i.e., problem identification, brainstorming, information retrieval, synthesizing information, proposing a course of action for resolution of the problem, plan modification, evaluation of solution.
- 56. Capably discuss how tragedy, irony, simile, metaphor, image, symbolism, humor, etc. is employed in writings.
- 57. Identify and discuss various literature selections which strengthened their understanding of information that they are studying in the science, social studies, health, and math content areas.

G. Vocabulary Development

- 58. Face new words with strategies for getting what they mean.
- 59. Learn English action words by participating in body movements and actions which correspond to the words and phrases being learned.
- 60. Discuss how knowledge of the origin of words, root words, and prefixes can help in understanding the meaning of a word.
- 61. Have strong enough vocabulary and language skills so as to read proficiently English language newspapers.
- 62. Have familiarity with common computer terms.

- 63. Demonstrate and discuss how to effectively access information from various language resources, including dictionaries, thesauruses, libraries, directories.
- 64. Complete creative writing assignments employing vocabulary and concepts taught to them from the various core content areas (i.e., Science, Math, Social Studies, Health, Palauan Studies, English Language Arts).
- 65. Edit their own compositions using more precise and vivid words with which to make their point.

H. Structure and History of the English Language

- 66 Recognize common sounds and patterns of the English language.
- 67. Effectively discuss the many similarities and differences which exist between structure of the English language and that of Palauan.
- 68. Demonstrate familiarity with English grammar, grammar references, and style books.
- 69. Identify and discuss various English conventions of writing—punctuation, capitalization, and spelling.
- 70. Demonstrate awareness of formal and informal English.
- 71. Discuss and identify various English dialects and slang.
- 72. Recognize the major countries where English is predominantly spoken.
- 73. Discuss how languages change and what are some of the ways English is changing.
- 74. Demonstrate familiarity with the history of English and American English, the current status of English in the world, and current issues that surround English literacy.

CHAPTER 3

The Organization of the Palau English Language Arts Curriculum

The following are the major areas for the Palau English Language Curriculum accompanied by short descriptions. While they are discussed as separate skills, we would like to emphasize that they are sub-skills that are all interrelated and should be taught in an integrated, whole language approach.

A. Listening

This information should help students develop strong abilities to listen to speakers of English and understand what they are saying. Hopefully, with this information the students will also learn to grasp the subtleties of the language, and appreciate the beauty of spoken English.

B. Speaking and Reciting

This information should help students develop strong abilities to communicate through speech. Hopefully, with this information the students will also learn to speak or recite with confidence and clarity for a variety of situations.

C. Viewing, Reading, and Literature

This information should help students develop strong reading abilities. Hopefully, with this information the students will be able to confidently seek out variety of writings, read them, and learn from them.

D. Composing and Writing

This information should help students develop strong abilities to write about their feelings and the world around them. Hopefully, with this information the students will be able to express, document, and communicate to others their perceptions and concerns.

E. Critical Thinking

This information should help students develop strong abilities to apply what it is they read. Hopefully, with this information the students will better be prepared to solve any problem that might confront them in a logical, economical, and thoughtful manner.

F. Vocabulary Development

This information should help students develop in their ability to confidently read newspapers, confront new words, and access documents, libraries, individuals, and various writings for information. Hopefully, with this information the students will be able to confidently know where to go to find the meaning of something and information about something whenever they need it.

G. Structure and History of the English Language

This information should help students develop in their appreciation for the structure of English and their first language. Hopefully, with this information, students will better be able to organize their thoughts about languages and confidently proceed to learn many more languages.

The order in which the topic areas are presented is meant in no way to be a reflection of their relative importance within the curriculum. All of the topic areas are addressed in every grade and are all viewed as important and vital. They were all selected based on their relevance to existing needs and language concerns prevalent throughout our Republic.

What determines the sequencing of the information, and the placement of specific topics and components, is our understanding about our students and their level of maturity and need for specific information at particular grades. We do operate under the assumption that our students' abilities to handle more and more complex feelings, ideas, and issues develops as they grow and mature.

English language arts education is provided from grades 1 through 12 in every school. The course of study and student activities focus on developing high level of fluency.

CHAPTER 4

The Instructional Approach of the Palau English Language Curriculum

How well we are able to accomplish our goal to send our students into the future and back to their communities skilled readers and communicators of English depends greatly on *how* our English curriculum is taught and supported.

English is a skill, a way of thinking, a tool for communication, gaining knowledge, and for problem solving. In order to truly "learn" English, the language must be used over and over again in meaningful contexts by the learner.

As new advances are made daily into our understanding of how a second language is best learned and taught to students, we in Palau will seek to incorporate these better ideas into our instruction.

When most of us learned our first languages, we learned them under certain "optimal" conditions that helped us gain confidence and proficiency in our ability to communicate. Through trial and error, practice, listening, and the necessity to communicate our needs and explain the world around us, we were encouraged and coaxed to use and learn our home languages.

We have come to understand now that the second, third, fourth, etc., languages are more easily learned if we can provide our students with much the same "optimal" conditions that were operating when they learned their first language. Given this notion, and many others related to how we best meet our goal to develop English language fluency, literacy, and proficiency among our students, the Palau English Language Curriculum Office would like to offer up the following guidelines on how we believe English can best be taught to our students.

THE IMPORTANT ROLE OF OUR TEACHERS

The teacher's role in the curriculum is critical. He or she must carry out a number of roles to ensure that *all* our students attain the goals and objectives that have been set

forth in Chapter 2. It is especially important that the students have teachers who provide them with the following:

· Good Modelers of English

No amount of reading, exposure to interesting activities and presentations will challenge students to think, read, and enjoy effectively communicating in English if our teacher's behaviors are in direct contradiction to what he/she is attempting to teach. It is vitally important that the teacher constantly model the use of good English. During English language class, the language of instruction should be English. It is very difficult for the students to learn English if the teacher is using Palauan to teach English.

· Builders of Self-Esteem and Confidence

We know that our students learn best when they are able to learn in caring environments where they feel that they are accepted and respected. Every effort must be made by the teacher to allow each student an opportunity to have her and his feelings, ideas, and school work acknowledged and respected.

It is important that the teacher establishes and maintains with the class certain rules that work to help the students work in class in friendly, cooperative, and caring ways. It should be clearly communicated to each and everyone in the school that name calling and the humiliation of members of the school will not be tolerated. Each child is unique and is to be treated to with respect so that he or she can find school success and function as a successful contributing member of the school community.

Praise for good effort and improvement from the teacher and fellow students is the most positive way to build positive attitudes about learning and feelings of selfworth by our students. Negative reinforcement must be used sparingly if at all.

The building of self-pride and self-esteem can also be accomplished by the teacher in the type of readings that he/she selects for the students. As much as possible, students need to see their own experience being written about, see their own people in the role of "author," their interests and reality the topic of the assignments and discussions.

Palau Ministry of Education / English Language Arts Curriculum Framework

Good Tour Guides Into New "Unchartered Territory"

When new material is being introduced, students need teachers to act as guides for them. Good tour guides will do at least the following

- State the purpose for the learning
- Probe for prior knowledge.
- Provide students with necessary background information.
- Introduce the vocabulary in meaningful context.
- Encourage students to ask questions.
- Help students relate what is being learned to their own experience.
- Provide extra activities which will offer opportunities for the students to reinforce their new learning.
- Evaluate students' comprehension.
- Have students make predictions

Interpreters

Occasionally, there will be content covered in the curriculum which is a little removed from the students' immediate environment and experience base, but was included in the curriculum because there is a feeling that this information will eventually be helpful and necessary for the students. In these instances, it is important for the teacher to act somewhat as a "interpreters" and help the students understand material that might be more difficult to understand given their knowledge and experience base.

The teacher should use his or her knowledge about students' experiences, the curriculum, and the local environment so as to draw relevant and clear examples that will help the class better understand the ideas and concepts which might be more "foreign" to them.

The more relevant the teacher can make the curriculum, the better. Please take every opportunity to do this. The framework is merely the conceptual skeleton which requires a creative, dedicated teacher to help it come alive for the students.

• Designers of Pro-Literate Environments

Students need teachers who use their creativity to build a pro-literate environment out of the classroom. Attractive posters, black boards, posted pictures, reading corners, student-made books, etc., can all be used to provide extra motivation for the students to want to read and write.

The more excitement and enthusiasm the teacher can generate for all kinds of English language activities the better. Since our students are from a variety of linguistic backgrounds, it would also be important to have many languages represented in writing in the classroom.

· Strong Advocates and Promoters of Reading

Each day and week, time needs to be set aside for reading. Students also need to see the adults in their homes and classrooms modeling good reading habits. There is no greater motivation for reading than great stories, and stories that touch upon familiar feelings, things, people, and events.

What is selected or developed by the teacher for in class reading, reading assignments at home, reading aloud times, etc., can make all the difference in the world. Even the poorest reader cannot resist an interesting story. Also, a good teacher can take an interesting story and develop into a whole unit of fun activities that not only allow the students to practice their English language skills but also to reinforce their knowledge of various content areas.

· Supporter of "Multilingualism"

The teaching of English is in no way meant to undermine the student's first and/ or home language. English *should not* be presented as a "better" language, only a *different* language. Teachers should let the students know that being multilingual is very desirable. Those people in the class that know how to converse, read, and write in more than one language are very lucky. Students should be encouraged by their teacher to learn as many languages well as is possible.

Learning Styles Specialists

Our students need teachers who will work to make sure that the needs of *all* students in the class are being met. Oftentimes this means delivering the lessons using a variety of approaches. From experience we know that some students learn information better when they can both hear and see what is being discussed. Also, most of us remember more of the content being studied when we have been provided with opportunities to touch or actively get involved with the information being discussed.

Whenever possible, the teacher is strongly encouraged to vary the ways the English language information is presented. It is much more interesting and meaningful to the students when the teacher incorporates audio-visuals, field trips, role plays, guest speakers, films, props, etc., in his or her instructional approach.

All students need to gain in terms of their confidence in using English. While it may be easier to pace our lessons and activities to the "brightest" students in the class, this approach does not serve the best interest of the class, community, or curriculum. The mental, and emotional needs of all students should be kept in focus. A resourceful teacher will enlist the help of the quicker students to help with the instruction of those that are slower to grasp the information. This approach is very useful and is almost always beneficial to all parties.

Parent/Community Involvement Specialists

When the families and parents of our students are aware of what is being taught to their children via the English language curriculum, there are more opportunities for the lessons to be actually reinforced and learned. Whenever possible, it is important for the teacher to keep the students' parents and families well informed about the curriculum and whenever possible enlist their assistance to help their students learn the English language information and strategies that are being taught in school.

Our goal is to get better and better in how we teach and how our students learn English. From our observations of our current classrooms we would like to end with the following:

We Need fewer English Language Classrooms Where

- Students are not *actively* involved.
- There is not enough emphasis on creative writing.
- The teacher lectures or grades papers for the whole period.
- Teacher mainly speaks in Palauan during English instruction.
- Students are not given enough positive reinforcement.
- Pleasure reading is not emphasized.
- Only certain students are consistently called upon to do things and/or answer questions.
- Teacher emphasizes spelling and pronunciation more than meaning and comprehension.

We Need MORE English Classrooms Where:

- Teachers build upon students first language knowledge.
- English lessons cut across the content areas and reinforce what is being taught in the other subject areas.
- Palauan stories, values and the everyday experiences of the students are being used in the teaching of English.
- The lessons and activities the teacher has chosen or designed address a range of interests and skill levels.
- There are a variety of teaching approaches being used.
- The students are eagerly waiting for their turn to practice and share their English language skills.
- Where with the young children, lots of the activities revolve around picture books, rhymes, stories, story telling, puppet shows, songs, poems, opportunities to "show & tell," etc.
- Teachers especially have good discussions which give the students important background information before assigning difficult material to read.
- Teachers make a special effort to increase their waiting time for responses so
 that even slower students who need just a little extra time to formulate their
 answers have opportunities to successfully answer in class.
- Peer tutors are used so that more students get practice within a class period.

Palau Ministry of Education / English Language Arts Curriculum Framework

CHAPTER 5

The Scope and Sequence of the English Language Arts Curriculum

The Goals of the English Language Arts Framework are to Develop Students Who...

MAJOR ATTITUDES

- Feel effective in their ability to use their enhanced communication abilities to more constructively participate as a contributing member of their family, society, country, and world.
- Feel confident to communicate in English through speech and writing for a variety of personal, practical, academic, and creative situations and needs.
- Appreciate, respect, and value the differences and similarities between Palauan and the English language, and the people of Palau, and those of other cultures.
- Enjoy, appreciate, and feel enriched by the great literary "classics" and compositions of the Pacific and the world available in English.
- Find satisfaction and deepening sense of pride and self-worth as they write and feel confident in their own abilities to compose, express their feelings and opinions, and take on the creative role of "author."
- Feel confident and eager to problem solve and seek out new ideas and information because of their competencies with the English language and various information resources.
- Find direction and deepening awareness of themselves through their readings of various writings that address important values and conditions throughout the world.
- Enjoy language learning and understand the value of being multilingual.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
A. Listening	Students will be able to	Students will be able to
	1. Have numerous opportunities to listen to quality stories, songs, chants, poems, dramas, speeches, audio tapes, readings, etc., which are highly	1.1 Listen to numerous stories about topics which are familiar and interesting to <i>first-grade</i> students and which they have experienced in their first language.
	interesting and relevant to them.	1.2 Identify correctly and discuss at least three translated familiar Palauan children's stories that were read aloud to them in class.
		1.3 Identify correctly and discuss at least three familiar Palauan songs that were translated, read, and sung to them in class.
		1.4 Identify correctly and discuss at least three familiar Palauan chants or poems that were translated and read aloud to them in class.
	2. Have numerous opportunities to hear English practiced, spoken, and read aloud by them, their classmates, their teachers, and other experts.	2.1 Listen daily to highly interesting, predictable, repetitive stories, poems, and songs in order to get comfortable with the rhythms, patterns, and common phrasing of English.
		2.2 Listen to slides, films, filmstrips, videotapes, or audio tape recordings of highly interesting, repetitious, rhythmical stories, poems, and songs so as to build confidence and familiarity with English.

A Company of the Comp		
STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
A. Listening	Students will be able to	Students will be able to
(continued)	3. Think about what they hear and listen well enough to identify, discuss, and summarize key elements, i.e., the directions, the theme/main idea, sequence of events, the speaker or reader's motivation, plot, setting, main characters, characterizations, etc., of what is read or spoken to them.	 3.1 Identify the main characters, summarize the theme/main idea and accurately recall the sequence of events for at least five of the children's books that were read to them during the school year. 3.2 Recall simple class instructions in their own words accurately. 3.3 Recall stories or songs that they and specific classmates liked during the school year and discuss why the were especially good. 3.4 Proficiently participate in activities (Total Physical Response) and play games where they required to listen and respond to verbal directions with specific body movements, e.g., "Simon Says", "Hide 'n Seek," etc.
	5. Discuss and demonstrate how a courteous audience behaves.	5.1 Discuss why making noise when someone is trying to share a story with the class is not nice.
	7. Recognize various forms of speech and writing from what they hear, e.g., conversations, small and large group discussions, directions, poems, songs, chants, speeches, announcements, stories, skits, dramas, reports, etc.	7.1 Listen and distinguish from a tape recording: between a poem and a report, a song and set of directions, a reading of a fairy tale and a class meeting.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
B. Speaking & Reciting	Students will be able to	Students will be able to
	8. Have many opportunities to be engaged in discussion	8.1 Taik about <i>noo</i> or their iavorne books.
	about things that are impor- tant to them, that they are experiencing, feeling, and	8.2 Talk about their favorite subject or activity in school.
	about which they are reading and studying.	8.3 Talk about things that make them feel happy, sad, excited, and angry.
	9. Express themselves in speech with clarity and precision for many <i>practical</i> situations,	9.1 Respectfully and politely greet someone older.
	i.e., asking questions, giving directions, participating in everyday conversations,	9.2 Be able to introduce themselves or a friend and share personal information about themselves.
	sharing their feelings and experiences, participating in meetings, giving speeches, etc.	9.3 Politely ask permission to do something or have something.
	10. Express themselves in speech with clarity and precision for many <i>creative</i> and <i>recreational</i>	10.1 Play games where they required to locate a hidden object in the class-room.
	situations, i.e. telling jokes, storytelling, reciting poems, sharing songs, playing games,	10.2 Invent their own new phrase for a song or chant.
	presenting skits or dramas, etc.	10.3 Play games where they give verbal directions, or ask permission, and listen well enough to successfully
		play the game, e.g., "Simon Says," "Mother, May I ," etc.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
B. Speaking & Reciting	Students will be able to	Students will be able to
(continued)	11. Express themselves in speech with clarity and precision for many <i>academic</i> situations, i.e.,	11.1 Confidently share with classmates and teacher the information about themselves and their family.
	participating in small or large group class discussions, shar- ing information with class- mates, brainstorming, giving	11.2 Correctly ask questions that seek more information.
	different reports, debating questions, dramatic readings, etc.	11.3 Actively take turns in class sharing information, giving answers, feedback, and asking questions.
		11.4 Actively participate in "Show and Tell."
		11.5 Effectively carry out the rotated job of team leader.
		11.6 Give classmates a short set of directions for how to do something.
	12. Confidently read aloud chorally and individually various works (letters, stories, poems, newspaper articles, own compositions) with effective use of voice, volume, pace, tone,	12.1 Successfully read in unison with classmates three classic children's rhythmical and repetitious picture books that were read aloud to them in class.
	intonation, pronunciation, gesture, facial expressions, etc.	12.2 Successfully sing in unison with classmates three rhythmical and repetitious songs that were read and sung to them in class.
		12.3 Successfully recite in unison with classmates <i>three</i> rhythmical and repetitious poems that were read aloud to them in class.
	13. Capably retell stories in their own words.	13.1 Retell at least <i>three</i> stories using their own illustrations.

STRAND/TOPIC/FOCUS	CON	STUDENT OF FOUR
STRAND/TOPIC/POCUS	GOAL	STUDENT OBJECTIVES
B. Speaking & Reciting	Students will be able to	Students will be able to
(continued)	14. Sensitively and respectfully disagree with another's point of view in discussions.	14.1 Why it is important not to make fun of someone who says something that they don't think is right or that they agree with.
	 Capably use body movements, skits, and dramatizations to convey meaning. 	16.1 Demonstrate reciting at least <i>three</i> English rhymes, songs, and chants with body movements.
		16.2 Pantomime correctly body movement responses to at least five TPR commands.

STRAND/TOPIC/FOCUS	GCAL	STUDENT OBJECTIVES
C. Viewing, Reading,	Students will be able to	Students will be able to
& Literature	18. Have many opportunities to view and read a large variety	18.1 Begin to associate print to pictures.
(continued)	of well written stories, books, plays, pamphlets, articles, posters, charts, diagrams,	18.2 Begin associating what is spoken with written words.
	printed materials, etc., which are highly interesting and	18.3 Begin associating words with ideas.
e de la companya de	well illustrated.	18.4 Know that print carries meaning.
		18.5 Recognizes their own name in limited contexts.
		18.6 Identify correctly and discuss at least three classic children's rhythmical and repetitious picture books that were read aloud to them in class.
		18.7 Identify correctly and discuss at least three rhythmical and repetitious songs that were read and sung to them in class.
		18.8 Identify correctly and discuss at least three rhythmical and repetitious poems that were read aloud to them in class.
		18.9 Identify correctly and discuss at least three rhymes that were read aloud to them in class.
	<u> </u>	1

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
C. Viewing,	Students will be able to	Students will be able to
Reading, & Literature (continued)	19. Have numerous opportunities to read their thoughts, their stories, and about their own reality.	19.1 Identify correctly and discuss at least three translated traditional Palauan children's stories that were read aloud to them in class.
		19.2 Identify correctly and discuss at least three familiar Palauan songs that were translated, read, and sung to them in class.
		19.3 Read along with the teacher statements that they made in response to a story book which were recorded on the board by the teacher.
		19.4 Read simple books about themselves made by each student with the help of the teacher.
	:	

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
C. Viewing,	Students will be able to	Students will be able to
Reading, & Literature (continued)	20. Independently select and read various materials from a library for both pleasure and personal enrichment.	20.1 Select reading material that interest them from the class library and anticipate in Sustained Silent Reading (SSR) for at least five minutes four times per week.
	22. Read with confidence various practical writings related to successfully carrying out	22.1 Correctly find their name somewhere posted in the classroom.
	various everyday activities, e.g., labels, signs, charts, post- ers, lists, instructions, notes, memos, letters, recipes, pre-	22.2 Identify correctly at least <i>two</i> posters in their classroom and discuss what they are about.
	scriptions, receipts, bills of sale, forms and applications, job announcements, newspaper and magazine articles, laws, legislation, etc.	22.3 Correctly read numbers 1 – 10.
	23. Interpret and discuss with ease the relevancy of what they read in terms of their understanding, feelings, and experience.	23.1 Discuss at least <i>three</i> of the books that they selected for their SSR activity and why they selected them.
	24. Identify and discuss various readings that help them understand what it is to be a good human being and to clarify their values and moral judgement.	24.1 Give at least <i>one</i> example of a story, song, or poem that helped them understand more about: natural beauty, the importance of good manners, or the importance of respecting our elders.

GRADE 1

Palau English Language Arts Curriculum Framework

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
C. Viewing, Reading, & Literature (continued)	Students will be able to 25. Analyze and find with ease the main ideas, main characters, theme, sequence of events, and cause and effect	The students will be able to 25.1 Correctly order the sequence of events of a story using picture cards which are shuffled and out of order for at least <i>three</i> of the stories that
	relationships, plot, setting, characterization, point's of view, etc. in what they read.	were studied in class. 25.2 Correctly match central illustrations for stories with their titles.
	26. Proficiently read illustrations, graphs, maps, charts, posters, diagrams, and other visual displays.	26.1 Correctly find their name from a list.26.2 Correctly find the teacher's desk from a seating chart of their classroom.
	27. Identify and discuss various strategies and context cues they use in helping them to read various kinds of writing, including content specific writing, e.g., text materials and resource materials for Science, Math, Health, Social Studies, Palauan Studies, Art, Music.	27.1 Accurately predict the topic of at least two stories from the title and looking at the illustrated cover of a picture book.
	28. Demonstrate familiarity with reading a variety of literary genres, including, short stories, fiction, nonfiction, poetry, novels, diaries, journal entries, autobiographies and biographies, essays, narratives, expository writings, dramas, comedies, tragedies, etc.	28.1 Correctly identify how fairy tales usually begin and end.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
C. Viewing, Reading,	Students will be able to	Students will be able to
& Literature (continued)	29. Demonstrate familiarity and knowledge about significant Palauan and Pacific Region	29.1 Correctly identify and discuss at least three children's books that are authored by Pacific Region authors.
	children's, intermediate, and adult literary classics, their authors, and the period and conditions in which they were written.	29.2 Identify and discuss <i>one</i> Pacific Region children's book author and tell at least <i>two</i> things that they know about this person.
	30. Demonstrate familiarity and knowledge about significant children's, intermediate, and adult literary classics written in English from throughout	30.1 Correctly identify and discuss at least one children's books that are authored by an author from another part of the world.
	the world, their authors, and the period and conditions in which they were written.	30.2 Identify and discuss <i>one</i> children's book author from another part of the world and tell at least <i>two</i> things that they know about this person.
	·	

GRADE 1

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
D. Composing & Writing	Students will be able to	Students will be able to
	33. Have many opportunities to write about things that are important to them, that they	33.1 With the help of the teacher, illus- trate and author a simple book about themselves and their family.
	are experiencing, feeling, and about which they are reading and studying.	33.2 Keep throughout the school year a "highlights" journal in which they put drawings and simple word and sentence entries that capture something about major events, activities, field trips and celebrations that they participated in.
		33.3 Compose a new ending for a known story that reflects how they think it should have ended.
	34. Use various literary works and forms as models and	34.1 Write their own names.
	compose their own versions of these writings.	34.2 Approximate print in their drawings.
		34.3 Complete at least <i>three</i> simple writing frames.
	35. Proficiently create illustrations, timelines, graphs, maps, charts, and diagrams to communicate their ideas.	35.1 Illustrate the main characters for at least <i>four</i> of the stories or legends that they have studied.
	to communicate their ideas.	35.2 Make at least <i>three</i> illustrations for a story that they make up.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
D. Composing & Writing	Students will be able to	Students will be able to
(continued)	38. Competently compose practical everyday items used to communicate ideas, i.e., la-	38.1 Proficiently copy one simple recipe for things they made in class from the board.
	bels, signs, lists, instructions, notes, memos, letters, recipes, prescriptions, receipts, bills of sale, forms and applications,	38.2 Complete at least <i>two</i> simple "thank you for helping them" cards for their elders.
	sharing of their feelings and everyday experiences, recording meetings, etc.	38.3 Complete a list of things that they would really like to have.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
E. Critical Thinking	Students will be able to	Students will be able to
(continued)	49. Make predictions and judgements about what they read, hear and view, and justify their conclusions.	49.1 Identify characters in their stories that they thought were good and discuss what in the story did they use to make their judgment.
		49.2 Have opportunities to listen to their teacher model his/her thought processes of what how they try to predict what a book will be about using the cover illustrations and the title of the book.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
**		
E. Critical	Students will be able to	Students will be able to
Thinking (continued)	50. Consider what they read and hear in terms of the human, ethical, and cultural values that they reflect and promote.	50.1 Give at least <i>one</i> example of a character that they thought was a good person and discuss why they thought so.
	I	50.2 Give at least one example of a story, song, or poem that helped them understand more about how to be a good citizen of Palau.
		50.3 Give at least <i>one</i> example of a story, song, or poem that they think tried to teach them something about respect.
		50.4 Give at least <i>one</i> example of a story, song, or poem that helped them understand more about: sharing, nature and natural beauty, the importance of good manners, parental
		love, respecting the property of others, or the importance of respecting our elders.
		·
	•	

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
E. Critical Thinking	Students will be able to	Students will be able to
(continued)	54. Confidently use various information resources to investigate questions and get answers.	54.1 Use an illustrated dictionary to match <i>three</i> illustrations with their words.
	55. Effectively participate in all phases of group problem solving, i.e., problem identification, brainstorming, information retrieval, synthesizing information, proposing a course of action for resolution of the problem, plan modification, evaluation of solution.	55.1 Actively participate in class meetings.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES °
F. Vocabulary Development	Students will be able to	Students will be able to
Development	59. Learn English action words by participating in body movements and actions which correspond to the words and phrases being learned.	59.1 Pantomime correctly body movement responses to at least <i>five</i> TPR commands.
	61. Have strong enough vocabu- lary and language skills to proficiently read English language newspapers.	61.1 Name, label, and describe common items found in their homes and classroom.
	language newspapers.	61.2 Discuss and use various descriptive adjective (color, shape).
		61.3 Discuss and use various terms used to describe their feelings.
		61.4 Discuss and use various terms used to describe everyday actions.
		61.5 Discuss and use various terms used to describe the location of things.
		61.6 Discuss and use various terms used to describe the things people commonly wear.
		61.7 Discuss and use various terms used to describe the various members of the family.
		61.8 Match key vocabulary words on prepared cards with words embedded in a story.

Students will be able to	Students will be able to
66. Recognize common sounds and patterns of the English language.	66.1 Know the letters in the English alphabet.
	1 :
	and patterns of the English language.

SOCIAL STUDIES FIRST GRADE

Social Studies

CURRICULUM FRAMEWORK



PALAU PUBLIC SCHOOLS

Developed by

The Social Studies Curriculum Framework Committee and the Social Studies Curriculum Staff 1988 – 1992 The Palau Ministry of Education is indebted to Masa-Aki N. Emesiochl, director for the Bureau of Curriculum and Program Development, who provided the inspiration and means for creating the first set of Curriculum Frameworks for Palau Public Schools. From their inception, his vision for these frameworks as a critical tool in the process of curriculum renewal and improvement has been the driving force for their ultimate completion. We are grateful for his unwavering commitment toward the educational advancement and future dreams of our children.



The development of the *Social Studies Curriculum Framework* was partially funded by the Chapter II program.

The opinions expressed in this framework do not necessarily reflect the position or policies of the United States Department of Education, and no official endorsement by the DOE should be inferred.

This framework was developed by the Bureau of Curriculum and Program Development, Ministry of Education, Republic of Palau.

foreword

Curriculum renewal and improvement is an ongoing process. For many years now, it has been very clear that the Ministry of Education's improvement efforts would be greatly facilitated if frameworks for all our content areas could be completed. This important task is not a small one. Since the Ministry's initiation in 1986 of its Five-Year Improvement Plan, the dialogue and work to detail, refine, review, and reach consensus on what knowledge is most important to teach for each discipline for twelve years of schooling has been foremost in the work and thoughts of the Ministry's personnel.

These important maps, our frameworks, need to take Palau's students into the next century with strong foundations and skills to deal with the community and world around them. This framework is one of seven completed core frameworks which when implemented will help everyone involved with education in Palau to be much clearer on our task, mission, and prescribed program for each student. We believe that our frameworks are finally ready to help us chart a course to many improvements in terms of our instructional program, staff development, materials development, and materials adoption for the next several years, and we are extremely excited.

Of course, it is in the implementation of our frameworks that we will be able to see the real strength of our commitments and ideas. But if the development process for the frameworks and the many people who gave of themselves often beyond what they thought possible is any indication, we are confident that these next few years for education in Palau will be bright and will bring about many significant improvements.

Our overall goal for all our students is to prepare them appropriately to function as informed and effective citizens of our Republic, to succeed in the world of work, and to attain a level of personal satisfaction and happiness. The teaching of Social Studies and the things outlined in this framework bring us one step closer to delivering to our students and communities the kind of educational experiences that will yield for us our desired harvest.

As our world and our understanding of it changes, so must our curriculum. We would like to commend the many individuals who worked on this social studies framework and their endeavors to update and improve the Social Studies education we will

provide our students over the next several years. Noticeably, our new curriculum framework is improved in the following ways:

- 1. The link between the goals and the student objectives is more clearly defined.
- 2. More detailed student objectives of what the students are to know and be able to do at the end of each grade in six concept areas.
- 3. Content is strengthened and covered in a more in-depth manner in a number of important areas, especially regarding:
 - a. Effective citizenship in Palau, the region, and the global communities;
 - b. Problem-solving strategies on issues related to human relations, civic responsibilities, and the environment;
 - c. Conflict resolution; and
 - d. Relating social studies concepts to understanding of different kinds of organizations and communities throughout the world.
- 4. Overall there is greater clarity about our purpose and what instructional approaches might prove more successful with our students in the development of attitudes, skills, and knowledge for effective citizen participation.

Much work still lies ahead for all of us. There is a great need to make new and more appropriate materials, and at the same time, provide better and more relevant training for our teachers. But nothing is more important than the commitment and support of our staff, teachers, and community working together to promote excellence in the teaching of Social Studies. We feel hopeful about this framework and believe that it will be a useful tool to help us do our best.

Masa-Aki N. Emesiochl

Monesioch

Director

Bureau of Curriculum & Program Development

Palau Ministry of Education

1993

CHAPTER 1 Rationale for the Teaching of Social Studies

To prepare citizens to lead effective lives in their cultural settings and to meaningfully participate in their society is one of the main goals of the Palau Ministry of Education. As me man and undergoes constant change, transition, and to some degree is faced with an uncertain future, it becomes more apparent to educators and community how critical it is to empower our future generations of citizens and leaders with the knowledge and skills they will need to lead our island nation into the 21st century and to improve the quality of life for all our people. From our point of view as the drafters of this framework, we think that the social studies is the best school-based subject with the most potential to prepare our young people for the lifetime job of citizen: a job that awaits all our young.

With the many outside influences affecting our way of life, our young will need to have a better understanding of how those changes impact our future and recognize that there are effective ways to cope with the changes so that we still work to maintain our culture and ways of life. In teaching the social studies, it is our intent to provide our students with the opportunities to be well grounded in our culture, the traditional ways that history, the values, the customs that make us Palauan, Micronesian, and Pacific Islanders. In teaching our young to value their heritage, they will also be developing the cultural pride and identity they will need to guide and protect our island nation so that we maintain our cultural identity and integrity through future generations.

Our young people will need to be aware of how decisions made at all different levels of Palauan society (the clan, community, government, etc.) affect their lives. They will need to have a solid understanding of their roles and responsibilities in each so that they will be able to contribute effectively and participate meaningfully in the making of decisions that affect them. Being knowledgeable in one's roles and responsibilities also means having a good understanding of how each level functions in theory and in actual practice.

In the teaching of civic education and government, our young people will begin to understand the concepts of governing and the making of policy; concepts that will help them effectively lead their lives both on a public and personal level. In providing an opportunity such as giving students practice in evaluating and changing school rules to improve the quality of school life for all students, the social studies curriculum helps to prepare our students for their future responsibility to evaluate public laws and policies for the betterment of the community.

As the peoples of the world become more interdependent for survival on Earth, and the miracles of technology increasingly make it possible to travel anywhere in the world, our young people will be coming into contact with people of many different cultural backgrounds for social, business, or other reasons. Our young people will need to be prepared to interact with people culturally different from themselves. A knowledge and understanding of other countries, world cultures, histories, values, traditions, and other aspects will help our future leaders appreciate and deal with cultural diversity.

A knowledge of world geography will help our students understand where Palau fits into the world community and help them understand how our geographical make-up affects our relationships with other nations. Also, with a knowledge in geography, students will have a better chance of grasping the issues involved among different countries, as world events unfold.

As future leaders of Palau, a study of history will help our young understand what problems or situations in the past have occurred and how they have helped shape the present. History will also help students understand that most human problems are not unique but only part of life known as the human condition; a condition that has existed since the beginning of human existence and continues to be played out in different ways all over the world. From a study of history, we would hope that people learn from mistakes made in the past so that they will not be repeated. It is also through history that students are exposed to great people who believed in and devoted their lives to powerful ideas for the betterment of the human condition: justice, freedom, equality, respect for diversity, basic human rights, and commitment to something greater than oneself. It is through our own history where we teach about people in our past, chiefs, leaders, thinkers, and others who worked to make Palau what it is today.

Our future leaders also need to have an understanding of our relationships to nature so that they will be able to make wise decisions in their policy making to protect what we have, but could otherwise easily destroy forever. In the teaching of social studies, respect for the land, seas, plant-life, animal life, and air and our traditional ways of caring for nature need to be included and understood by students in appreciation of our view of Palau and the world.

Our teaching of social studies gets its directive specifically from four (4) of Palau's Goals of Education as follows:

GOALS OF EDUCATION

- 1 To prepare students as responsible citizens of Palau by emphasizing their individual and collective duty to contribute to the welfare of the Republic.
- 2 To instill in students the value of their Palauan identity and unity through the study of local history, environment, customs, music, arts, politics, economic, and social characteristics.
- 3 To foster awareness and knowledge of Palau, the rest of the world, and the role of Palau in that world.
- 5 To provide students with basic knowledge and skills in the areas of mathematics, social studies, science, and health.

CHAPTER 2

The Goals and Outcomes of the Palau Social Studies Curriculum

The Goals and Outcomes of The Dalay Social Studies Commission Frances of are to Develop Students Who...

MAJOR ATTITUDES

- Take pride in their own heritage, culture, language, and artistic expression and believe in their preservation, promotion, and maintenance.
- Exhibit a strong sense of positive self-worth and maintain an openness and respect for the values, ideas, belief systems, and practices of people different from themselves.
- Believe in not wasting and being careless about the world's human and natural resources.
- See the importance of studying and applying their knowledge of regional and world history, geography, systems of governance, current affairs, and the values and practices of other cultures in an effort to make wise decisions for the future.
- Appreciate the ways in which the communities of the world are interdependent and are becoming increasingly so.
- Believe that people, individually and collectively, can and must work to improve social, health, political, and environmental conditions that pose a threat to guaranteeing a quality of life for themselves, their neighbors, and for the generations that will follow.
- Take pride in their country and believe in participating as a knowledgeable and responsible member.
- Feel effective in their ability to use their communication and problem-solving skills to clarify and more constructively make a contribution to their family, society, country, region, and world.
- See the importance of thoughtfully weighing the consequences and impact of various actions upon various populations before acting on them.
- Believe that both old and new approaches of getting things accomplished need to be considered for effective problem-solving to take place.

KNOWLEDGE AND SKILLS

A. Culture

Language, values, beliefs, customs

- 1. Compare and contrast their own cultural values and beliefs to those of other cultures.
- 2. Justify the importance of being able to speak, read, and write in Palauan with a high degree of fluency.
- 3. Identify at least twelve (12) different cultures and list some of the similarities and differences that exist between their culture and each of these cultures.
- 4. Identify and discuss the various forms of artistic expression found in their own culture and in other cultures.
- 5. Discuss how respect is shown to various populations, significant places, treasured objects, symbols, and practices in different cultures throughout the world.
- 6. Discuss major decision-making bodies within specific societies and how they relate to one another.

B. Resources

Geographical, natural, numan, technological

- 7. Apply their knowledge of world geography to locate and identify major countries, continents, and bodies of water of the world on a map.
- 8. Identify and discuss the major natural resources for at least ten (10) different countries.
- 9. Evaluate how well various countries work to develop their human resources.
- 10. Discuss how various technological "advances" have negatively and positively impacted traditional cultural values, practices, and relationships.
- 11. Create with classmates a list of resolutions that various nations should adopt to prevent further waste of important natural resources.
- 12. Identify and discuss how Palau and various nations in the world are interdependent and how countries in general are dependent on one another.

C. Significant Efforts and Events

Leaders, inventors, innovators; family, community, organizational, national, and global efforts; significant periods; world history

- 13. Relate how various individuals or groups made or continue to make major contributions to improving the quality of life for their families, communities, nations, and peoples of the world.
- 14. Name and discuss the major historical events for Palau, the Pacific Region, and the world.

D. Government and Civic Responsibility

Citizen rights and responsibilities; government structure and decisionmaking

- 15. Identify and describe information that every citizen should be familiar with in order to participate as a responsible voter.
- 16. Demonstrate knowledge and understanding of a number of political systems.
- 17. Demonstrate knowledge and understanding of a number of economic systems.

E. Problems

Past and current dilemmas related to: utilization of limited resources, natural phenomena, change, differences in priorities, culture, and philosophy, unequal access to power, resources, position, and decision-making; denial of freedom and rights

- 18. Identify and describe at least eight (8) examples of conflicts on a world scale concerned with competition over natural resources.
- 19. Evaluate the impact of various natural phenomena (i.e., typhoons, hurricanes, volcanic eruptions, earthquakes, droughts, flooding, climatic changes, etc.) on various populations.
- 20. Demonstrate knowledge about how change can cause problems.
- 21. Compare and contrast conflicts that are caused by differences in priorities among people and nations.

- 23. Demonstrate understanding of conflicts caused by unequal access to power, resources, position, or decision-making.
- 24. Apply their knowledge of current health problems in the world to make recommendations on what local citizens should do to confront them effectively.
- 25. Identify and discuss how various environmental problems have effected the quality of life for various people.
- 26. Demonstrate knowledge of various struggles for basic freedom and rights occurring around the world.

F. Problem-Solving Approaches

Mediation, collaboration, legislation, organizing

- 27. Apply their knowledge and skills in conflict resolution to mediate or resolve conflict in group interactions.
- 28. Apply their knowledge and skills of effective team work and collaboration to do effective group problem-solving on issues that are pertinent to the school, community, Palau, the Pacific Region, and the world community.
- 29. Demonstrate their skill and belief in policy-making as an effective strategy to prevent and confront various problems.
- 30. Identify and discuss at least four (4) efforts initiated by individuals to solve a serious problem.
- 31. Identify and discuss at least six (6) community-based efforts mounted to solve a serious problem.
- 32. Identify and discuss at least three (3) national efforts mounted to solve a serious problem.
- 33. Identify and discuss at least four (4) pan-national efforts mounted to solve a serious problem.

Palau Ministry of Education / Social Studies Curriculum Framework

CHAPTER 3 The Organization of the Palau Social Studies Curriculum

The following are the major topic areas for the Social Studies Curriculum accompanied by short descriptions:

KNOWLEDGE AND SKILLS

A. Culture

This information should help students take pride in their own heritage, culture, language, and artistic expression; believe in their preservation, promotion, and maintenance; and, understand what traditionally has been viewed as important. With this information the students will be able to exhibit a strong sense of positive self-worth and maintain an openness and respect for the values, ideas, belief systems, and practices of people different from themselves.

B. Resources

The information and concepts covered in this strand should help students understand that the world around them is filled with many different kinds of resources, i.e., geographical, natural, human, technological, etc. Through studying various issues that surround the world's resources, the students will also come to develop strong convictions about the importance of not being wasteful nor careless with these resources.

C. Significant Events and Efforts

The material covered in this strand is organized to help students benefit from the courage, genius, creativity, commitment, and problem-solving of others. Through studying about leaders, inventors, and innovators and community, organizational, and various global efforts, the students should come to see the value in human endeavor and the usefulness of studying and making use of history.

D. Problems

Social studies education allows for the possibility of effective problemsolving for the future. Through studying past and current dilemmas related to: utilization of limited resources, natural phenomena, change, differences in priorities, culture, and philosophy; unequal access to power, resources, position, and decision-making; and, denial of freedom and rights, students will be able to help bring about constructive resolutions when they are confronted with them.

E. Problem-Solving Approaches

Our students will only have a good chance of being able to help bring about constructive resolutions for their families, community, country, and world if they receive practice and more practice wrestling with real problems and tried strategies. With their skills at mediation, collaboration, legislation, and organizing, war, denial of human rights, and unnecessary suffering will no longer be tolerated.

The order in which the topic areas are presented is meant in no way to be a reflection of their relative importance within the curriculum. All of the topic areas are addressed in every grade and are all viewed as important and vital. They were all selected based on their relevance to existing needs and cultural concerns prevalent throughout our Republic.

What determines the sequencing of the information and the placement of specific topics and components is our understanding about our students, their level of maturity, and need for specific information at particular grades. We do operate under the assumption that our students' abilities to handle more and more complex feelings, ideas, and issues develops as they grow and mature.

Social studies education is provided from grades 1 through 12 in every school. The course of study and student activities focus on developing knowledgeable learners who are capable of respectfully participating in our customs and skillfully communicating in our own languages.

CHAPTER 4

The Instructional Approach for the Social Studies Curriculum

In the preceding sections what was covered were the reasons why we believe the teaching of social studies is so critical for our students. Detailed is what we hope they will feel, know, believe, and be able to do by the time they graduate from our schools. How well we accomplish our goal to send our students into the future and back to their communities skilled to live in harmony and problem-solve wisely depends greatly upon *how* our social studies curriculum is taught, responded to and supported.

Like all children in the world, the children of Palau have a natural curiosity about the world in which they live. The social studies curriculum should build upon this natural curiosity to develop a program that encourages students to look for patterns and relationships, ask questions, and think about the increasingly complex and varied world in which they live.

Every aspect of the social studies program should work to enhance the growth of all students and help them develop into lifelong learners.

What follows are a number of brief suggestions that the social studies curriculum staff would like to respectfully make about the instructional approach we believe would best serve the students and the intent of this curriculum.

THE ROLE OF OUR TEACHERS

The teacher's role in the curriculum is critical. He or she must carry out many different roles at the same time if all our students are to attain the goals and objectives that have been set forth in Chapter 2. If our curriculum is to succeed, then among some of the most important jobs that we believe that our teachers must carry out are these:

The teachers of Palau play a crucial role in such a program. They should communicate more than an interest in and an enthusiasm for social studies. Students who are guided by teachers whom they observe respecting others, caring for others, and living in harmony with others will learn one of social studies' most valuable lessons. Social studies knowledge, attitude, and skills are vital only if they are utilized to ensure a higher quality of life for people. What their teachers do does make a difference. Teachers need to model the best of what they are expecting from the students.

Coaches for Young Social Studies Experts

Developing our students to be "conflict resolution experts" in their thinking and daily practice will happen only if they receive ample opportunities to exercise and refine their research, mediation, and negotiation skills. As "coach," the teacher's role is to facilitate, set up, arrange, provide, but not to "do" for the students. The social studies-related skills that will need refining include the following:

- Listening
- · Problem Identification and Sorting
- Research
- Negotiation
- Facilitation
- Mediation
- Networking, Organization, and Team Work
- Policy-Making

The role of the teacher is to create an environment that encourages all students to actively participate in the processes of inquiry. Teachers should encourage students to explore the world around them, to ask questions, to look for new ideas and patterns, and to form their own hypotheses without the fear of being wrong. By creating a safe and nurturing environment in which students are free to explore, the teacher can help each student reach his or her full potential.

• Builders of Self-Esteem and Confidence

We know that our students learn best when they are able to learn in caring environments where they feel accepted and respected. Every effort must be made by the teacher to allow each student an opportunity to have her and his feelings, ideas, and school work acknowledged and respected.

It is important that the teacher establishes and maintains with the class certain rules that work to help the students work in class in friendly, cooperative, and caring ways. It should be clearly communicated to each and every one in the school that name-calling and humiliation of school members will not be tolerated.

Praise from the teacher and fellow student, for good effort and improvement is the most effective way to build positive attitudes about learning and feelings of self-worth by our students. Negative reinforcement must be used sparingly if at all.

The building of self-pride and self-esteem can also be accomplished by the teacher in the type of readings that he or she selects for the students. As much as possible, students need to see their own experiences being written about, their own people in the role of "author," and their interests and reality as the topic of assignments and discussions.

• Good Tour Guides Into New "Unchartered Territory"

When new material is being introduced, students need teachers to act as guides for them. Good tour guides will do at least the following:

- Probe for prior knowledge.
- Provide students with necessary background information.
- Introduce the vocabulary in meaningful context.
- Help students relate what is being learned to their own experience.
- Have students make predictions.
- State the purpose for the learning.
- Provide extra activities which will offer opportunities for the students to reinforce their new learning.
- Encourage students to ask questions.

Interpreters

Occasionally, there will be content covered in the curriculum which is a little removed from the students' immediate environment and experience base, but was included in the curriculum because there is a feeling that this information will eventually be helpful and necessary for the students. In these instances, it is important for the teacher to act somewhat as a "translator" and help the students understand material that may be more difficult to understand given their knowledge and experience base.

The teacher should use his or her knowledge about students' experiences, the curriculum, and the local environment to draw relevant and clear examples that will help the class better understand the ideas and concepts which might be more "foreign" to them.

The more relevant the teacher can make the curriculum, the better. Please take every opportunity to do this. The framework is merely the conceptual skeleton which requires a creative, dedicated teacher to help it come alive for the students.

· Supporters of "Multiculturalism"

The teaching of other cultures and societies is in no way meant to undermine the student's first and/or home culture. Other ways of being and doing *should not* be presented as a "better" approach to life and knowledge, only a "different" one. Teacher should let the students know that being able to look at things from very different world views or ways of thinking is very desirable. Students should be encouraged by their teachers to learn as much as they can.

Learning Styles Specialist

Our students need teachers who will work to make sure that the needs of *all* students in the class are being met. Oftentimes, this means delivering the lessons using a variety of approaches. From experience we know that some students

Palau Ministry of Education / Social Studies Curriculum Framework

learn information better when they can both hear and see what is being discussed. Also, most of us remember more of the content being studied when we have been provided with opportunities to touch or actively get involved with the information being discussed.

Whenever possible, the teacher is strongly encouraged to vary the ways the social studies information is presented. It is much more interesting and meaningful to the students when the teacher incorporates audio-visuals, field trips, role plays, guest speakers, films, props, etc., in his or her instructional approach.

All students need to gain in terms of their confidence in applying what they learn in social studies. While it may be easier to pace our lessons and activities to the "brightest" students in the class, this approach does not serve the best interest of the class, community, or curriculum. The mental and emotional needs of all students should be kept in focus. A resourceful teacher will enlist the help of the quicker students to help with the instruction of those who are slower to grasp the information. This approach is very useful and is almost always beneficial to all parties.

• Parent/Community Involvement Specialists

When the families and parents of our students are aware of what is being taught to their children via the social studies curriculum, there are more opportunities for the lessons to be actually reinforced and learned. Whenever possible, it is important for the teacher to keep the students' parents and families well-informed about the curriculum and enlist their assistance in helping their students learn the social studies information and strategies that are being taught in school.

Our goal is to continue to improve how we teach and how our students learn social studies. From our observations of our current classrooms, we would like to end with the following:

We Need MORE Social Studies Classrooms Where:

- Teachers build upon students' knowledge.
- Lessons cut across the content areas and reinforce what is being taught in the other subject areas.
- Palauan stories, values, and everyday experiences of students are being used in the teaching of social science.
- Lessons and activities the teacher has chosen or designed address a range of interests and skill levels.
- A variety of teaching approaches are being used.
- Students eagerly wait for a turn to practice and share their observation skills.
- Activities revolve around conducting experiments and investigations.
- Teachers have especially good discussions that give students important *back-ground information* before assigning difficult material to read.
- Teachers make special efforts to increase their waiting time for responses to provide opportunities for slower students who need extra time to successfully formulate their answers in class.
- Many interesting activities to are used to generate interest in social studies at each grade level.
- The world is used as the laboratory or "classroom."

We Need fewer Social Studies Classrooms Where:

- Students passively listen to the teacher read or lecture to them.
- There is not enough emphasis on having students predict, question, hypothesize, etc.
- * Teachers lecture or grade papers during entire periods.
- Students are not given enough positive reinforcement.
- Only certain students are consistently called upon to do things and/or answer questions.
- Teachers emphasize memorization more than comprehension.

Palau Ministry of Education / Social Studies Curriculum Framework

CHAPTER 5

The Scope and Sequence of the Palau Social Studies Curriculum

The Goals of the *Palau Social Studies Curriculum Framework* are to Develop Students Who...

MAJOR ATTITUDES

- Take pride in their own heritage, culture, language, and artistic expression and believe in their preservation, promotion, and maintenance.
- Exercises strong sense of positive self worth and maintain an openness and respect for the values, ideas, belief systems, and practices of people different from themselves.
- Believe in not being wasteful nor careless with the world's human and natural resources.
- See the importance of studying and applying their knowledge of regional and world history, geography, systems of governance, current affairs, and the values and practices of other cultures in an effort to make wise decisions for the future.
- Appreciate the ways in which the communities of the world are interdependent and are becoming increasingly so.
- Believe that people, individually and collectively, can and must work to improve social, health, political, and environmental conditions that pose a threat to guaranteeing a quality of life for themselves, their neighbors, and for the generations that will follow.
- Take pride in their country and believe in participating as a knowledgeable and responsible member.
- Feel effective in their ability to use their communication and problem-solving skills to clarify and more constructively make a contribution to their family, society, country, region, and world.
- See the importance of thoughtfully weighing the consequences and impact of various actions upon various populations before acting on them.
- Believe that both old and new approaches of getting things accomplished need to be considered for effective problem-solving to take place.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
KNOWLEDGE AND SKILLS		
A. Culture	Students will be able to	Students will be able to
Language, values, beliefs, customs	Compare and contrast their own cultural values and beliefs to those of other cultures.	1.1 Name at least five (5) things that family members do to take care of each other.
	3. Identify at least twelve (12) different cultures and list some of the similarities and	3.1 Name at least six (6) things that make them different from another student.
	differences that exist between their culture and each of these cultures.	3.2 Name at least six (6) things that make them similar to another student.
	cultures.	3.3 Identify at least five (5) things that babies need to grow and be happy.
	4. Identify and discuss the various forms of artistic expression found in their own culture and in other cultures.	4.1 Name a good storyteller in their community.
	5. Discuss how respect is shown to various populations, significant places, treasured	5.1 Identify and discuss at least four (4) ways they show respect to their parents.
	objects, symbols, and practices in different cultures throughout the world.	5.2 Identify and discuss at least four (4) ways they show respect to their teacher.
	6. Discuss major decision-making bodies within specific societies and how they relate to one another.	6.1 Name and draw a picture of their family and describe each member's responsibilities.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
		,
B. Resources	Students will be able to	Students will be able to
Geographical. natural, human, technological	world geography to locate and identify major countries, continents, and bodies of water of the world on a map.	 7.1 Draw and discuss a picture of their family compound or neighborhood. 7.2 Describe the route they take to school everyday. 7.3 Identify Palau as an island.
·	8. Identify and discuss the major natural resources for at least ten (10) different countries.	8.1 Draw a picture of the different sea life found in Palau's waters.
	11. Create with classmates a list of resolutions that various nations should adopt to prevent further waste of important natural resources.	11.1 Give at least three (3) reasons why it is not a good idea to be wasteful with things such as food, water, classroom paper supplies, and other things.

STR	AND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
<u> </u>	Significant	Students will be able to	Students will be able to
С.	Significant Efforts and Events Leaders, inventors, innovators; family, community, organizational, national and global efforts; significant periods; world history	13. Relate how various individuals or groups made or continue to make major contributions to improving the quality of life for their families, communities, nations, and peoples of the world.	 13.1 Name at least three (3) ways their parents work to make their home a good place for their family to live and grow. 13.2 Identify at least one (1) thing each person in their class does to help make their classroom a good place to study and learn.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
D. Government and Civic Responsibility Citizen rights and responsibilities; government structure and decision-makino	Students will be able to 15. Identify and describe information that every citizen should be familiar with in order to participate as a responsible voter.	Students will be able to 15.1 Recite and discuss their home rules. 15.2 Recite and discuss the classroom rules. 15.3 Recite and discuss the playground rules.

STRAND/TOPIC/FOCUS	COAL	
OTTAND/TO/TO/TOCOS	GOAL	STUDENT OBJECTIVES
E. Problems	Students will be able to	Students will be able to
Past and current dilemmas related to: utilization of limited resources, natural phenomena, change, differences in priori- ties, culture, and	22. Compare and contrast conflicts that are caused by differences in culture or philosophy among people and nations.	22.1 Recall an incident when two people stopped talking with each other because they didn't agree on how to do something.
philosophy; unequal access to power, resources, position, decision-making; denial of freedom and rights	25. Identify and discuss how various environmental problems have effected the quality of life for various people.	25.1 Give at least three (3) reasons why it is a good idea to keep their classroom litter-free.
	,	

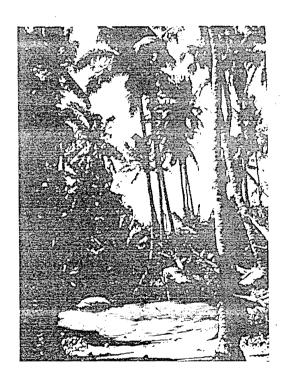
GRADE 1

STRAND	D/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
Ap Me	oblem- lving oproaches ediation, laboration,	Students will be able to 27. Apply their knowledge and skills in conflict resolution to mediate or resolve conflict in	Students will be able to 27.1 Tell why it is important for them to try to get along with each other.
leg	islation, anizing	group interactions.	a Maka •
		28. Apply their knowledge and skills of effective team work and collaboration to do effective group problem-solving on issues that are pertinent to the school, community, Palau, the Pacific Region, and the world community.	28.1 Contribute at least two (2) ideas that are appropriate to a class discussion on solving a class problem.
		29. Demonstrate their skill and belief in policy-making as an effective strategy to prevent and confront various problems.	29.1 Name at least two (2) things that could happen if their family didn't have any home rules.29.2 Do a puppet show about what could happen if their class didn't have any class rules.
			29.3 Draw a picture of what could happen if there were no playground rules.
		30. Identify and discuss at least four (4) efforts initiated by individuals to solve a serious problem.	30.1 Listen to a story about someone who tried to solve a problem and recall the things they did to try to solve it

MATHEMATICS FIRST GRADE

Mathematics

CURRICULUM FRAMEWORK



PALAU PUBLIC SCHOOLS

Developed by

The Math Curriculum Framework Committee and the Math Curriculum Staff 1988 – 1992 The Palau Ministry of Education is indebted to Masa-Aki N. Emesiochl, director for the Bureau of Curriculum and Program Development, who provided the inspiration and means for creating the first set of Curriculum Frameworks for Palau Public Schools. From their inception, his vision for these frameworks as a critical tool in the process of curriculum renewal and improvement has been the driving force for their ultimate completion. We are grateful for his unwavering commitment toward the educational advancement and future dreams of our children.



The development of the *Mathematics Curriculum Framework* was partially funded by the Chapter II program.

The opinions expressed in this framework do not necessarily reflect the position or policies of the United States Department of Education, and no official endorsement by the DOE should be inferred.

This framework was developed by the Bureau of Curriculum and Program Development, Ministry of Education, Republic of Palau.

foreword

Curriculum renewal and improvement is an ongoing process. For many years now, it has been very clear that the Ministry of Education's improvement efforts would be greatly facilitated if frameworks for all our content areas could be completed. This important task is not a small one. Since the Ministry's initiation in 1986 of its Five-Year Improvement Plan, the dialogue and work to detail, refine, review, and reach consensus on what knowledge is most important to teach for each discipline for twelve years of schooling has been foremost in the work and thoughts of the Ministry's personnel.

These important maps, our frameworks, need to take Palau's students into the next century with strong foundations and skills to deal with the community and world around them. This framework is one of seven completed core frameworks which when implemented will help everyone involved with education in Palau to be much clearer on our task, mission, and prescribed program for each student. We believe that our frameworks are finally ready to help us chart a course to many improvements in terms of our instructional program, staff development, materials development, and materials adoption for the next several years, and we are extremely excited.

Of course, it is in the implementation of our frameworks that we will be able to see the real strength of our commitments and ideas. But, if the development process for the frameworks and the many people who gave of themselves often beyond what they thought possible is any indication, we are confident that these next few years for education in Palau will be bright and will bring about many significant improvements.

Our overall goal for all our students is to appropriately prepare them to function as informed and effective citizens of our Republic, to succeed in the world of work, and to attain a level of personal satisfaction and happiness. The teaching of math and the things outlined in this framework bring us one step closer to delivering to our students and communities the kind of educational experiences that will yield for us our desired harvest.

As our world and our understanding of it changes, so must our curriculum. We would like to commend the many individuals who worked on this math framework and their

endeavors to update and improve the math education we will provide our students over the next several years. Noticeably, our new curriculum framework is improved in the following ways:

- 1. More detailed student objectives of what the students are to know and be able to do at the end of each grade in six concept areas.
- 2. Content is strengthened and covered in a more in-depth manner in a number of important areas, especially regarding:
 - a. problem-solving strategies;
 - b. application of math skills to real life;
 - c. mastery of basic number facts with the four operations; and
 - d. relating math concepts to understanding of the physical world.
- 3. Overall there is greater clarity about our purpose and what instructional approaches might prove more successful with our students.

Much work still lies ahead for all of us. There is a great need to make new and more appropriate materials, and at the same time, provide better and more relevant training for our teachers. But, nothing is more important than the commitment and support of our staff, teachers, and community working together to promote excellence in the teaching of math. We feel hopeful about this framework and believe that it will be a useful tool to help us do our best.

Masa-Aki N. Emesiochl

Monesioch

Director

Bureau of Curriculum & Program Development

Palau Ministry of Education

Revised Version 2/94

CHAPTER 1 Rationale for the Teaching of Math

Gain an appreciation for the important role which mathematics plays in a modern society

Palauan society is rapidly changing due to influences from around the world. Each day computers and other technology are increasingly becoming part of our society. To successfully meet the challenges that are posed by these changes, the students of today and tomorrow will need to become more aware of the significant role mathematics plays in these technological changes. Students will need to be well prepared through the study of math to competently meet those challenges by engaging in learning opportunities that will help develop the attitudes, skills, and knowledge they will need to function effectively both within our cultural setting and in this changing modern world.

Whether our young people choose to go for post-secondary education or stay in Palau to work in the village or at other vocations, they will need a basic math knowledge to function effectively in everyday living. The nature of daily living, as it is, requires math skills in such activities as cooking, constructing, house repair, farming, driving a boat or car, fishing, planning a family custom, family budgeting, family planning, cultural arts and crafts (storyboards, etc.), and other daily activities.

Develop enough mathematical literacy to enable them to function to their maximum potential in a modern economy

A basic understanding of math will also help our young people cope more effectively with the fast pace of technological development. With calculators, video players, television, video machines, stereo equipment, computers, and other forms of technology progressively becoming part of our daily lives, a basic knowledge of how math relates to these forms of technology would help people not feel so overwhelmed by their presence.

Progressively there are more jobs in the economy which require a basic knowledge of computers. Our young people will need to be prepared to take those positions, rather than the Republic having to seek qualified people elsewhere.

For those students who would like to continue their education and pursue a career in technology, we need to offer a variety of vigorous math experiences that will help train their minds and help them succeed in college-level courses.

Develop the ability to estimate solutions, to compute accurately, to assess the reasonableness of their answers, and to reason logically and critically

A knowledge of math also helps in the development of thinking and reasoning skills—skills that people need to live effective and productive lives. Much in the way that one processes the solving of a mathematical problem, one can use the same steps to reason many other kinds of problems.

As our economy becomes more purchasing and selling oriented, our young people will need to be wise consumers of products and services. They will need a good math background to be able to critically evaluate product information given by the media, by salespeople, and others so that they can make wise decisions in getting what they need at a reasonable cost. They will need to be familiar with such concepts as checking and saving accounts, credit, loans, interest rates, and others, especially as our way of life becomes more cash oriented.

The Bureau views the teaching of math as such a priority that it has mandated its teaching in one of its seven major goals. The teaching of math is dictated in this manner:

GOALS

5. To provide students with basic knowledge and skills in the areas of Mathematics, Social Studies, Science, and Health.

CHAPTER 2

The Goals and Outcomes of the Palau Math Curriculum

The Goals and Outcomes of the Palau Mathematics Curriculum Framework are to Develop Students Who...

MAJOR ATTITUDES

- Appreciate both traditional and modern methods of counting.
- Believe in the value and utility of mathematics.
- Value creativity, effort, and an intellectual curiosity for solving many kinds of problems.
- Enjoy exploring, risk taking, and experimenting with different approaches to find solutions to problems.
- Feel confident in their own ability to apply their math knowledge and reasoning skills to solve everyday problems.
- Appreciate the beauty of mathematics as a means to describe the physical world.

KNOWLEDGE AND SKILLS

A. Number and Number Theory

- 1. Demonstrate understanding of the concept of number, the use of numbers to count, the order of numbers, absolute value, and the concepts of betweenness and density.
- 2. Demonstrate understanding and appropriate use of place value, representation of fractions, decimals, and all types of numbers including counting numbers, whole numbers, nonnegative rational numbers, the integers, all rational numbers, the real numbers, and the set of complex numbers.
- 3. Demonstrate understanding of the operations with real and complex numbers (addition, subtraction, multiplication, division, raising to a power, taking a root) and the relationships between operations.

- 4. Demonstrate understanding of the order of operations and use of the properties of the real and complex number system to write and work with number sentences.
- 5. Describe the nature of counting numbers, including such characteristics of numbers as their factors or multiples, whether they are prime or composite, even or odd, and their relationships to other numbers.
- 6. Demonstrate understanding of the concepts and practical applications of ratio, proportion and percent, and how they are related.

B. Computational Skills

- 7. Demonstrate facility and accuracy with the basic operations of addition, subtraction, multiplication, and division with whole numbers.
- 8. Demonstrate competence in real-life applications of math skills and knowledge (i.e., making change with facility and accuracy, balancing a checkbook, computing bills, planning budgets, consumer practices, and other practical applications).
- Demonstrate a facility with a variety of methods of computations and the ability to select the most efficient and effective method of solving a given problem (i.e., mental arithmetic, paper-and-pencil algorithm, estimation, calculator).

C. Measurement

- 10. Make informal comparisons and use appropriate language to describe relationships between objects being measured (i.e., terms such as taller/shorter, heavier/lighter, greater than/less than/equal to, and others).
- 11. Proficiently use both nonstandard and standard units of measurement to measure various sets or objects and explain why standard units of measurement are needed for communication and simplified computations.
- 12. Demonstrate an ability to use the metric and U.S. customary systems of measurement to measure linearity, area, volume, mass, time, temperature, and money, and make conversions within the systems.
- 13. Identify, explain, and apply formulas as an efficient method of obtaining some measurements, such as area, volume, distance, rate, or time.

Palau Ministry of Education | Mathematics Curriculum Framework

14. Explain how the best type of measurement for a given purpose depends on the physical aspects of the object to be measured.

D. Geometry

15. Demonstrate understanding of fundamental geometric concepts and principles to deepen their understanding of the physical world (i.e., point, ray, line segment, curve, space, angle, two- and three-dimensional figures in the plane and in space, other geometric terms, symbols, and relationships).

E. Probability and Statistics

- 16. Competently collect and organize data in tables and graphs (i.e., bar graph or histogram, line graph or frequency polygon, pictograph, circle graph).
- 17. Competently interpret, analyze, and assess data derived from tables, schedules, charts, and graphs.
- 18. Define and apply the concepts of range, mean, mode, and median to interpret data.
- 19. Demonstrate understanding of basic probability concepts (i.e., frequency, permutations, tree diagrams).

F. Mathematical Thinking and Logic

- 20. Determine patterns, identify the rules that could have been used to generate the patterns, and apply the rules to extend the patterns, not only in mathematics but in other disciplines (i.e., history, art, music) and everyday life.
- 21. Demonstrate understanding of the concept of function as a special kind of relation among a defined set of numbers.
- 22. Competently apply a variety of problem-solving strategies and logical reasoning in solving many different kinds of problems.
- 23. Proficiently use mathematical language and terms to communicate mathematical concepts and expressions.
- 24. Competently apply the deductive method as a way of thinking to make valid inferences in solving problems.

CHAPTER 3

The Organization of the Palau Mathematics Curriculum Framework

The following are the major strands for the Palau Mathematics Curriculum Framework accompanied by short descriptions:

A. Number and Number Theory

The material covered in this strand should help students develop an understanding of the concept of number, number conservation, place value, and become familiar with the many different types of numbers (i.e., whole numbers, rational numbers, integers) that make up the real and complex number system. Number order, relationships, characteristics, and properties are covered, as well as the concept of the basic operations of addition, subtraction, multiplication, and division, and their relationships. Developing an understanding of number and number theory is essential to building a strong foundation in mathematics and one that this material will hopefully help students develop.

B. Computational Skills

The material covered in this strand is organized to help students master the basic math facts in a logical sequence and to help students use the basic operations of addition, subtraction, multiplication, and division. Real-life applications of math knowledge and skills and problem solving.

C. Measurement

The concepts and skills covered in this strand should help students understand that measurement is an important tool for learning about the physical environment and is a way of applying numbers to quantities. The metric system and the U.S. customary system are covered. Emphasis of the strand is in providing students with practice at measuring and comparing, using both systems. The

material covered also includes changing from one unit to another within the same system of measurement. Conversion of units from one system to another *is not* taught, but rather the emphasis is more on understanding the relationships among units in each system. Hopefully, with the material covered in this strand, students will develop their measurement and estimation skills as well as be able to select the most appropriate measurement tool for what is to be measured.

D. Geometry

The material covered in this strand should help students understand basic geometric concepts in terms of measurement, properties, and relationships of points, lines, angles, surfaces, and solids. The emphasis at the elementary level is work with concrete objects and progresses to more abstract concepts at the upper levels onto high school geometry. Hopefully, the material covered in this strand will help students develop a better understanding of the physical world and its many properties.

E. Probability and Statistics

The material covered in this strand should help students learn how to collect, organize, and interpret visual summaries of data in the form of graphs, charts, and tables. The study of probability helps students to extend their thinking and interpretation of the collected data by analyzing the way in which events occur by chance and to use the information to predict the outcomes of events. The study of statistics helps students with the collection, organization, and analysis of numerical data. Hopefully, the concepts and skills emphasized in this strand will help develop students' abilities to question, seek information, organize their findings, analyze the results, and make predictions about what they have learned.

F. Mathematical Thinking and Logic

The material covered in this strand should help students develop their thinking skills and reasoning powers through finding patterns and relationships, applying logic in their thinking, problem solving, and using mathematical terms and concepts to communicate mathematical ideas and processes.

CHAPTER 5

The Scope and Sequence of the Palau Math Curriculum

The Goals and Outcomes of the Palau Mathematics Curriculum Framework are to Develop Students Who ...

MAJOR ATTITUDES

- Appreciate both traditional and modern methods of counting.
- Believe in the value and utility of mathematics.
- Value creativity, effort, and an intellectual curiosity for solving many kinds of problems.
- Enjoy exploring, risk taking, and experimenting with different approaches ito find solutions to problems.
- Feel confident in their own ability to apply their math knowledge and reasoning skills to solve everyday problems.
- Appreciate the beauty of mathematics as a means to describe the physical world.

•	

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
KNOWLEDGE	Students will be able to	Students will be able to
& SKILLS A. Number & Number	Demonstrate understanding of the concept of number, the use of numbers to count, the order of numbers, absolute	1.1 Manipulate and classify materials with respect to a variety of attributes (i.e., color, number, size, shape).
Theory	value, and the concepts of betweenness and density.	1.2. Recognize, by visual inspection, whether two groups (0–9) are equal.
		1.3 Demonstrate one-to-one correspondence between the objects of two equal groups (0–9).
		1.4 Compare groups of real objects demonstrating the concepts of greater than/less than/equal to.
		1.5 Order sets of objects by magnitude.
		1.6 Recognize and extend patterns that are presented visually (i.e., triangles, rectangles, circles, squares, lines, etc.) aurally (i.e., examples of sounds in the environment) and tactilely (i.e., examples of something soft, something rough, and something sticky that students can touch).
		1.7 Look at a group of 1–5 objects and estimate the number without having to count.
		1.8 Order numbers on a number line writing numerals 0–9.
		1.9 Manipulate objects to create sets with a cardinality of 1–20.
		1.10 Match a set of objects to counting numbers 1–20.

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
A. Number & Number Theory (continued)	Students will be able to 1. Demonstrate understanding of the concept of number, the use of numbers to count, the order of numbers, absolute value, and the concepts of betweenness and density. (continued)	Students will be able to 1.11 Write numerals 1–20 to match a set of objects. 1.12 Read, write, and order numerals 1–20. 1.13 Count from 1–100. 1.14 Count by twos and fives. 1.15 Count using ordinal numerals first to tenth in a variety of classroom situations. 1.16 Use zero (0) to identify the empty set. 1.17 Demonstrate number sense ideas for number from 1–50.
	2. Demonstrate understanding and appropriate use of place value, representation of fractions, and counting numbers.	 2.1 Group counters (sticks or other objects that can be bundled) in packages of ones and tens to demonstrate the concept of place value in numbers from 1–20. 2.2 Identify equivalent fractional parts
		for halves of whole regions such as circular regions and rectangular regions using real-life objects and

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
A. Number & Number	Students will be able to	Students will be able to
Theory (continued)	3. Demonstrate understanding of the operations with real	3.1 Recognize the joining of two groups as a model for addition.
	numbers (addition and sub- traction) and the relationships between the two operations.	3.2 Generate all the possible addition combinations that will produce a given sum from 1–10 (i.e., students are given 7 blocks and asked to find all the possible combinations or addends that will produce a sum of 7: + = 7; + = 7; and so on) using problem-solving contexts.
:		3.3 Model simple addition sentences (i.e., 2 + 3 =; 4 + 5 =) using problem-solving contexts.
		3.4 Recognize subtraction as the inverse of addition, as a take-away model, as a missing-addend model, or as a comparison model.
		3.5 Manipulate materials or objects to demonstrate the model of subtraction (i.e., students have 5 coconuts, 3 are taken away, how many are left? 5 – 3 = 2; Basilio has 6 marbles, Tangy has 4 marbles, how many more marbles does Basilio have than Tangy? 6 - 4 = 2).

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
B. Computational Skills	Students will be able to	Students will be able to
	7. Demonstrate facility and accuracy with the basic operations of addition and subtraction.	7.1 Identify the sums of the basic addition facts through 9 using recall, derived, or other strategies. (Recall—remember from rote memorization. Derived strategy—using knowledge of 4 + 4 = 8 to arrive at 5 + 4 = 9. The student should know that 5 is 1 more than 4; therefore, 5 + 4 is 1 more than 4 + 4.)
	·	7.2 Using story problems, identify the sums of the basic addition facts for tens with tens using recall or derived strategies.
		7.3 Read, write, and solve problems with and without regrouping in situated contexts.
		7.4 Identify the differences for the basic subtraction facts through 9 using recall or derived strategies.
		7.5 Read, write, and solve subtraction problems in situational contexts.

STR	AND/TOPIC/FOCUS		GOAL		STUDENT OBJECTIVES	
В.	Computational Skills (continued)	8.	Students will be able to Demonstrate competence in real-life applications of math	8.1	Students will be able to Interpret and solve addition word problems related to real life using objects, pictures, models, or role	
	skills and knowledge (i.e., making change with facility and accuracy, consumer practices, and other practical applications).		making change with facility and accuracy, consumer practices, and other practical	8.2	playing. Interpret and solve subtraction word problems related to real life using objects, pictures, models, or role	
					playing.	

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES °
C. Measurement	Students will be able to	Students will be able to
	10. Make informal comparisons and use appropriate language to describe relationships between objects being measured (i.e., terms such as taller/	10.1 Directly match and compare concrete objects to demonstrate the concepts of shorter than, longer than, about the same length as, taller than, and so on.
	shorter, heavier/lighter, greater than/less than/equal to, and others).	10.2 Directly match and compare two or more surface areas to demonstrate the concepts of <i>more</i> , <i>less</i> , or <i>about-the-same</i> area.
		10.3 Directly match and compare capacities of containers to demonstrate the concepts of holds more, holds less, and holds about-the-same capacity.
	•	10.4 Directly match and compare objects by use of a balance to demonstrate the concepts of: heavier, lighter, and about-the-same weight.
		10.5 Make direct comparisons demonstrating the concepts of hotter, colder, warmer, and cooler.
		10.6 Use the terms <i>yesterday</i> , <i>today</i> , and <i>tomorrow</i> to relate the sequence of time.
	·	
		·

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
STRAND/TOPIC/FOCOS	GUAL	
C. Measurement	Students will be able to	Students will be able to
(continued)	11. Proficiently use both non- standard and standard units of measurement to measure various sets or objects and explain why standard units	11.1 Compare lengths of concrete materials using nonstandard units (i.e., pencils, crayons, paper clips, paper strips, feet, hands, fingers, and so on).
	of measurement are needed for communication and simplified computations.	11.2 Compare the size of a container by counting the number of smaller non-standard units, such as cans or cups, required to fill it.
		11.3 Compare the weight or mass of an object by balancing it with many nonstandard units (blocks, cubes, marbles, and so on).
		11.4 Compare the lengths of concrete materials using standard units (a ruler marked with equally spaced intervals).
	12. Demonstrate an ability to use the metric and U.S. customary systems of measurement to	12.1 Identify and compare coins and paper money up to one dollar: penny, nickel, dime, quarter, one-dollar bill.
	measure linearity, mass, time, temperature, and currency.	12.2 Relate the face of a clock through 12 for hours to the time of day and daily events.
		12.3 Name the seven days of the week.
		12.4 Compare lengths of objects using tools such as sticks and string.
•		

STRAND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
D. Geometry	Students will be able to	Students will be able to
	15. Demonstrate understanding of fundamental geometric concepts and principles to deepen their understanding of the physical world (i.e., point, ray, line segment,	15.1 Identify three-dimensional shapes (rectangular blocks and cones) and relate them to concrete objects in the environment (i.e., toys, classroom objects).
	curve, space, angle, two- and three-dimensional figures in the plane and in space, other geometric terms, symbols, and relationships).	15.2 Identify two-dimensional figures (circle, square, triangle, and rectangle) and relate them to concrete objects in the environment (i.e., toys, classroom materials, objects found at home).
		15.3 Demonstrate line and plane symmetry in paper folding and mirror images activities.
		15.4 Identify straight and curved lines.
E. Probability & Statistics	16. Competently collect and organize data in tables and graphs (i.e., bar graph or picture graph).	16.1 Participate in a simple class survey and help organize the data in charts using objects, pictures, or tally marks to record class findings (i.e., survey could be on the kinds of pets students in the class have, the number of brothers and sisters, the number of birthdays in each month, and so on).
	·	

STR	AND/TOPIC/FOCUS	GOAL	STUDENT OBJECTIVES
F.	Mathematical Thinking	Students will be able to	Students will be able to
	& Logic	20. Determine patterns, identify the rules that could have been used to generate the patterns, and apply the rules to extend the patterns, not only in mathematics but in other disciplines (i.e., history, art, music) and everyday life.	20.1 Identify and extend patterns in a sequence of numbers or objects or pictures.
		23. Proficiently use mathematical language and terms to communicate mathematical concepts and expressions.	23.1 Use math terms add or plus, subtract, equals to, number, before, after, greater than, less than, under/over, first/last, and high/low appropriately to communicate math ideas and spatial relationships in oral or written language.
		·	
AND THE STATE OF T			,

SCIENCE FIRST GRADE

A DRAFT OF THE PALAU SCIENCE CURRICULUM FRAMEWORK

FOR GRADES ONE THROUGH TWELVE



Submitted to:

Science Department, Ministry of Education, Republic of Palau Submitted by:

Linda Rose and Eldon Haines, Technical Assistants Micronesia and South Pacific Program, University of Oregon September 1994

CHAPTER 1

The Rationale for the Teaching of Science

The quality of life in Palau has always been dependent on the ability to maintain harmonious relationships between the people, the land, and the sea. However, in today's Palau, while modernization has brought many improvements, the reality of erosion, pollution, destruction, species depletion and extinction, and new health around the world. Technology and modernization steadily impact and change our everyday lives.

Today's students, Palau's future leaders and citizens, must be prepared to meet the challenges presented by modernization and increased global connection. They must become aware of the important role which science plays in the modern world, and they must become scientifically competent to meet the challenges posed by these major changes in our society. Students who are rooted in basic science knowledge, skills, and practices are well educated and prepared for today's world. Armed with scientific knowledge, principles, and habits of mind, our students will be able to protect the environment and conserve resources in a manner which will ensure quality of life for themselves and for future generations of Palauans.

The Ministry of Education asserts that science must be taught if students are to meet these challenges. The teaching of science relates directly to the overall philosophy and mandate of the Ministry. Against each major thrust of Education's mission, the teaching of science emerges as critical:

- To prepare citizens for effective lives in their cultural settings
- To provide each person the opportunity to develop abilities and skills which enrich life
- To prepare citizens for coping with change
- To prepare people for work in the community which depends largely upon individual and group efforts

The world around Palau is rich with sea, animal and plant life. Knowledge about the natural resources of Palau and the Pacific is essential for each citizen if problems such as the destruction of mangroves and reefs by development or the over-fishing of pelagic fish is to be prevented. Science training fosters in our students an intelligent respect for nature and cycles of life that should aid them to make informed decisions about the uses of technology.

Through applying their science training, our students will be more prepared for using and inventing tools for generating crucial new knowledge. Scientific literacy for all Palauans would mean that they could use their understanding of science, mathematics, and technology to help create a better world. Through exposure to scientific and technological principles and related topics such as the nature of systems, the importance of feedback

and control, the cost-benefit-risk relationships, and the inevitability of side effects give students a sound basis for assessing the use of new technologies and their implications for our environment and culture.

Although many pressing local and global problems have technological origins, technology can also provide the tools for dealing with many of these problems. Science and technology also has the capacity to prolong and enhance life. Energetically taught and supported, science education for our students can provide them with knowledge of the biological and physical environment and of social behaviors they will need to develop effective solutions to critical problems.

Throughout the teaching of science the significant theme of interdependence is explored. Since the children of Palau face a future requiring greater interdependence with the outside world, their knowledge and understanding of global systems and problems, i.e., global warming, acid rain, depletion of the ozone layer, disease, famine, unchecked population growth, the threat of nuclear war, etc., will enable them to thoughtfully contribute to a world in which humankind is at peace with itself and its environment.

For those students who wish to pursue post-secondary education in Palau or any where else in the world, adequate science training is a must. If students are provided with comprehensive science training, their education will prepare them to function successfully in all post-secondary fields of study both here and abroad. With a strong background in science, students will gain the education needed to fill the jobs that are created in the Palauan economy, many of which are in science and technical occupations.

Scientific thinking and problem solving can help people in every walk of life to deal sensibly with problems that often involve gathering and weighing evidence, pursuing logical arguments, and working with uncertainty. Without the ability to evaluate, think critically and independently, our students run the risk of becoming citizens who fall victim to harmful products and people who only have their own profit or self-interest in mind. With a firm foundation in science, our students will learn to become wise consumers and careful users of technology.

Of the Ministry's seven major goals, five of them directly call for the aggressive teaching of science to all the students within its public school system. They are as follows:

- 1. To prepare students as responsible citizens of Palau by emphasizing their individual and collective duty to contribute to the welfare of the Republic.
- 3. To foster awareness and knowledge of Palau, the rest of the world and the role of Palau in the world.
- 5. To provide student with basic skills in the areas of Math, Science, and Social Studies.
- 6. To provide students with adequate preparation for college or vocational education.
- 7. To provide students with opportunities (e.g., information, counseling, and limited scholarships) for post-secondary education outside of Palau with focus on careers identified as priorities for the Republic.

CHAPTER 2

The Goals and Outcomes of the Science Curriculum

The Goals of the <u>Science Curriculum Framework</u> are to Develop Students Who...

MAJOR ATTITUDES

- o Appreciate both traditional and modern scientific knowledge, skills, and ways of knowing.
- o Hold a sense of wonder about nature and the universe.
- o Believe in the potential of science to improve health, safety, and the human condition throughout the world.
- o Enjoy and value clean, safe, and natural environments.
- O View that their everyday actions and choices can and must help protect and solve the current problems of erosion, pollution, species depletion, and life cycle imbalance in Palau
- o Feel that the critical problems that currently plague our home the planet Earth, i.e., global warming, acid rain, depletion of the ozone layer, disease, famine, unchecked population growth, the threat of nuclear war, etc., while whose impact may not be readily apparent in Palau, are still the concern and priority of every citizen of the world.
- o Understand that it is important not to be wasteful.
- O Take pride in the scientific achievements that have been made by Palauans and other Pacific Islanders.
- o Are concerned about the wise use of the world's resources and technological and scientific "advances".
- o Nurture and support their own curiosity and the curiosity of the people around them.
- o Believe in scientific inquiry as a way of improving lives and solving certain problems.
- o Appreciate logical, analytical modes of problem solving.
- o Feel confident in their own ability to invent, conduct experiments, and take on the role of "scientist".
- o Believe that one should always try to keep an open mind.
- O Do not look down at or make fun of others and their explanations and views of the world that might be less "scientific". Understand that with more knowledge comes a responsibility <u>not</u> to be arrogant, conceited, and rude. What is appropriate is humility and a willingness to share information and a belief that they can learn from others, especially if their points of view are different.

o Feel that each person must assume major responsibility for his/her own learning, and the learning of his/her fellow classmates.

Knowledge and Skills

A. SCIENCE AS INQUIRY

1. INQUIRY SKILLS AND ATTITUDES:

Demonstrate knowledge and understanding of the scientific process and profession.

2. CRITICAL THINKING SKILLS:

Apply critical thinking skills to make informed decisions and choices in everyday lives.

3. MANIPULATIVE SKILLS:

Demonstrate the manipulative skills needed to work with physical samples.

4. COMPUTATIONAL SKILLS:

Apply the computational skills needed to analyze data.

B. THE ISLAND ENVIRONMENT

1. THE NATURAL ENVIRONMENT:

Demonstrate an understanding of the natural environment of islands.

2. PEOPLE ON ISLANDS:

Describe the interactions of people and the island environment.

C. THE UNIVERSE

1. EARTH, SUN AND MOON:

Explain the cycles and composition of the earth, sun and moon.

2. SOLAR SYSTEM:

Identify the compositions and motions of planetary bodies and the laws that govern them.

STARS:

Recognize star patterns and explain stellar evolution.

4. GALAXIES:

Demonstrate knowledge and understanding of galactic evolution.

D. THE EARTH

1 ATMOSPHERE

Demonstrate knowledge of the atmosphere's structure and process.

2. HYDROSPHERE:

Describe the hydrologic processes including ocean circulation

3. SOLID EARTH:

Demonstrate knowledge of the earth's structure and earth shaping processes.

4. FLOW OF MATTER AND ENERGY:

Demonstrate knowledge of the flow of matter and energy in the earth, oceans and atmosphere.

E. MATTER, ENERGY AND MOTION

1 MATTER:

Demonstrate the ways simple units build complex objects and account for the properties of matter.

2. ENERGY:

Identify energy's many forms, transformations and uses

3. MOTION:

Identify various types of forces and motions and the laws that explain them.

F. LIFE ON EARTH

1. DIVERSITY OF LIFE:

Demonstrate comprehension of biodiversity and its importance to life.

2. HEREDITY:

Demonstrate understanding of the passage of characteristics from parents to offspring.

3. CELLS:

Identify the cell as the basic unit of life and describe its functions.

4. INTERDEPENDENCE OF LIFE:

Identify webs of interdependence among organisms.

5. FLOW OF MATTER AND ENERGY:

Show the cycles and flows of matter and energy in living systems.

6. EVOLUTION OF LIFE:

Demonstrate comprehension of the ways species can change and the forces and time involved.

G. THE HUMAN ORGANISM

1. HUMAN IDENTITY:

Identify the behaviors, features, and skills which set humans uniquely apart from other animals.

2. HUMAN DEVELOPMENT:

Describe all parts of the human life cycle, from embryo and development to death.

3. BASIC FUNCTIONS:

Identify the basic functions of human life, including those shared by other organisms.

4. LEARNING:

Describe the senses, processes, and skills needed for optimum learning.

H. TECHNOLOGY

1. TECHNOLOGY AND SCIENCE:

Describe the ways science and technology support and advance one another and assess the impacts of the connections.

2. DESIGN AND SYSTEMS

Demonstrate the application of scientific principles to practical ends.

3. TECHNOLOGY ISSUES:

Identify the impacts of introducing new technologies or eliminating old ones.

CHAPTER 3

The Organization of the Palau Science Curriculum

Introduction

- A. Science as Inquiry
- B. The Island Environment
- C. The Universe
- D. The Planet Earth
- E. Matter, Energy, and Motion
- F. Life on Earth
- G. The Human Organism
- H. Technology

Introduction

With the release of the draft of <u>Pacific Standards for Excellence in Science</u>, a strong foundation for the Palau Science Curriculum Framework was laid. These and the <u>Benchmarks for Science Literacy</u> were used along with materials developed in Palau as the backbone for this framework.

A theme which binds the framework together is that science emerges from the child's personal relationship with the environment. The writers of <u>Pacific Standards</u> and <u>Benchmarks</u> believe that concepts, definitions, and theories have been taught too early in past years. They believe that students learn faster and more naturally, and are less prone to educational set-backs, if their early elementary years are filled with experiences, experiments, observations, and playfulness. As their elementary years proceed, students demand more explanations, finer distinctions, more comprehensive classifications, and they become more creative in their own ability to classify, distinguish, and explain. They then see the value in definitions, classification schemes, and explanations used by other scientists and are interested in the stories of those who have explored and discovered before them. Finally, in upper elementary and high school, the concepts, definitions, and theories are understood and accepted because the students have found their own paths.

The writers of <u>Pacific Standards</u> and <u>Benchmarks</u> also believe that while science cannot decide questions of morality or ethics, it can describe the likely outcomes of various human choices, and that information can guide human actions. Students learn to balance the benefits and potential dangers of new products or energy technologies. An attitude of balance is the basis of traditional conservation and provides for the growth of stewardship along with the student's new knowledge and skill.

A consistent theme in this framework is that knowledge and methods brought in from elsewhere will not displace the vast storehouse of native method and wisdom. Palauan knowledge and intelligence which is built on

long and keen observation. Palauans are fine naturalists. Palauans are proud and should be proud of their native scientific knowledge. Teachers themselves must be clear that "chad er a ngebard" knowledge is not superior to traditional knowledge. However, a global viewpoint can expand students' traditional knowledge to include information from around the world. It can bring new technologies which extend the normal human senses with instruments like the microscope, the spectrograph, the seismograph, and the computer. It can bring conceptual tools and methods of inquiry. *Palauan Science* is the integration of the traditional knowledge and wisdom with global viewpoints, methods, and instruments.

The eight main categories, each discussed in more detail in this chapter, are intended to cover the scientific enterprise comprehensively. Subjects which the <u>Pacific Standards</u> and <u>Benchmarks</u> place under separate headings, such as historical perspectives and environmental concerns, are incorporated into the eight main headings. The main categories appear as the headings in Chapters 5, *Scope and Sequence of the Palau Science Curriculum*, and in the first column of the Chapter 6, *Student Grade-by-Grade Objectives for the Science Curriculum*. The secondary categories of Chapter 5 show up in bold print in the following paragraphs. They are also the *Goals* of Chapter 6, which appear in the second column.

The *Student Objectives*, the third column in Chapter 6, are not and can not be comprehensive. The student objectives are cast as examples of knowledge students should have, skills they should master, and projects they could accomplish. To use a vertebrate analogy, the eight main concepts form the backbone of the framework, the secondary goals form the ribs, and the student objectives give glimpses of the shapes and functions of organs, muscles, and skin. The challenge for the teacher, working with the curriculum specialist, is to fill in the anatomy and physiology of the beast - to bring Palauan science alive for the students.

A. Science as Inquiry:

The skills, attitudes, and values of science.

The basis for scientific inquiry is keen observation, curiosity, and need. These and other related attributes have been held by island people long before formal schooling was introduced. Island navigators knew from careful observation which rising or setting star marked the direction of a distant island and how to use the canoe's wake to estimate current and drift. Farmers knew which phase of the moon for planting yielded the best taro, what compost and how much water gave the best taste and texture. Food gathering in the lagoon required exact knowledge of the tides and careful observation of the habits and cycles of fish, clams, and crabs.

The main challenge to teachers is to bring to their students a confidence that **Inquiry Skills and Attitudes** are natural extensions of their native island skill of careful observation and creative explanation. Western science can expand on these skills by including observations made by instruments which extend human senses, and it insists *Palau Ministry of Education / Science Curriculum Framework*

in the end on accepting only explanations which are supported by evidence, logic, and sound argument. Valuable attitudes include integrity in observation and recording information, clear verbal and written presentation, and a healthy skepticism for one's own and others' explanations - skepticism balanced with an open mind. Scientists also tend to hold certain world views. Consistency in the world is one: corals grow in tropics around the world; green plants use the same materials and reactions everywhere to capture the sun's energy; deep ocean trenches are usually accompanied by parallel chains of volcanic islands. Scientists believe that the universe is a unified system for which the fundamental rules are everywhere the same. They believe that much can be learned by people working together over a long time period. Historical examples help students see how important scientific ideas have grown or changed.

Young children constantly ask "Why?" and with that question begin to develop **Critical Thinking** skills. These skills grow as students learn to defend their ideas to their peers through evidence, logic, and clear communication. They develop skepticism about celebrity statements, advertising claims, and vague attribution. As critical sophistication grows students see how more than one hypothesis may explain any set of observations, and learn to see bias in their own views and statements.

Measuring lengths, angles, temperatures, and time intervals, and carefully recording the data, are **Manipulative Skills** which students can perform in their earliest years. They learn the careful use and maintenance of more advanced tools, such as micrometers, refractometers, sextants, and electronic instruments, expanding their ability to observe phenomena. Students learn to use computers to store and manipulate information.

Computational Skills grow along with the manipulative skills. Two important skills should be learned early: (1) describing and explaining the chosen computational path, and (2) estimating results without calculator or even paper and pencil. Describing the chosen path requires that the student think the problem through. Estimating the result shows whether the calculation will yield a reasonable answer. No computer can replace these skills. Students can then proceed with calculator and computer to give speed and accuracy to the calculation. They learn to use combinations of measurements which yield ratios, volumes, densities, velocities, and flow rates. Later they will learn to use algebra, geometry, and trigonometry to expand their computational skills. The use of computer spread sheets, programming, charts, and graphs expand the advanced student's ability to handle large or complex data sets and to make clear presentations.

Palau Ministry of Education / Science Curriculum Framework

B. The Island Environment:

The uniqueness of small islands in large oceans.

The presence of the lagoon and the sea nearby is the daily experience of all Palauan children. However, many children who live in Koror experience them only at a distance. A few lucky Koror children and most children who live in villages experience the island environment more directly. They cool themselves in the lagoon water or the sea breeze. They eat fish, clams, and crabs collected from the nearby water. They are drenched by the tropical downpours. The entire island environment is so common that children do not recognize the uniqueness of a small land mass surrounded by the ocean. The challenge to the Palauan teacher is to open their awareness to the unique attributes and natural systems of islands; and to help them see the benefit as well as the damage that comes with human development, both traditional and western.

The knowledge of the youngest children grows fastest when it depends mostly on direct experience and incorporates their natural curiosity, creativity, and playfulness. At first their knowledge of their home and school environments can be explored through local walks. Later they may be introduced to the amazing and beautiful phenomena of the lagoons, reefs, forests, and streams. Students grasp the size and nature of their islands: eroded volcanic rocks of Babeldaob, the uplifted limestone *chelbacheb*, and the northern atolls. These direct experiences, when accompanied by discussing, drawing, model building, and writing, introduce students to **The Natural Environment** of the island.

In the middle elementary years students expand their knowledge about **People on Islands**. A series of focused studies cover food and water, use of resources by islanders, transportation on islands, waste disposal, and use of island resources by others. The value of these studies is expanded when they are accompanied by related subjects in social studies, geography, and Palauan culture. Students learn from legends the meaning of conservation in traditional culture.

In early high school the students return to study the island's natural environment in much greater detail: the geology, oceanography, weather, and the living environment. In the final years the students synthesize their growing knowledge of Palau's natural and human environments by investigating, researching, and reporting on the benefits and damages which accrue as humans interact with the island environment. The concept of traditional conservation is expanded to mean stewardship for all aspects of the natural environment and the human community of their island home.

Palau Ministry of Education / Science Curriculum Framework

C. The Universe:

What we see in the sky and how it affects our lives.

The wonder of the night sky affects every individual: the starry night, the sunrise over the ocean, full moon on the lagoon, delight or fear at the first meteor. Children ask, "Which star is that?" and "Is the sun on fire?" It all seems so inaccessible and far away that children cannot comprehend how it affects them.

But the universe does affect their lives most profoundly, and it is a challenge to the teacher to show children how we live in the midst of its activity. The most obvious cycles in our lives are the result of the way the **Earth, Sun, and Moon** interact with each other. Children experience night and day, sunrise and sunset. They see the changes in the shape of the moon in the sky and experience the tides, the spawning cycles of fish, and planting times. Which stars appear at night and where the sun crosses the sky mark the annual cycle. As the students' sophistication grows, they learn the orbital relations of the earth about the sun and the moon about the earth. Telescopic pictures of the sun and photos from the Apollo astronauts help students grasp the drama of the sun's furnace and the moon's cratered history. Eventually they learn about the composition of the sun, the nature of the thermonuclear processes driving the intense sunlight and the vast flow of solar energy onto the earth's surface.

The most observant student knows that some "stars" appear to wander through the field of fixed stars. These wanderers, or planets, together with the sun, comprise the most visible and massive parts of the **Solar System.** The small, stony nature of the inner planets and the huge, gaseous nature of the outer giant planets is certain to raise questions, and the orderly progression of their orbits raises more. The much smaller asteroids and comets, their odd compositions and stranger orbits challenge students' imaginations. With mathematical sophistication the students learn how Kepler successfully described the planets' orbits, and how that led Newton to write his laws of gravity. Small deviations from Newton's laws lead to a qualitative description of Einstein's relativity.

Students first learn the names of **Stars** and constellations, and how island navigators used them to find their way to distant islands. Understanding their internal structure and processes begins with the sun, but the presence of red and blue stars, and of stars in dust clouds opens the story of a star's life cycle. As students gain knowledge about the atomic and molecular structure of matter, they understand the neutron stars and "black holes" left behind when a large star dies.

Telescopic photos of different **Galaxies** open the student to the vastness of the universe. More images are received through radio-telescopes, microwave receivers, and orbiting x-ray and gamma-ray telescopes. The scale of space and time is comprehended, and great distance is found related to great time. The rushing apart of the universe is understood through spectrographic measurements, and finally Hubble's "Big Bang" hypothesis is suggested.

D. The Earth:

Structure and Systems of the Atmosphere, Oceans, and Solid Earth

Palauan children live under towering clouds and sudden downpours, dive in the clear water of the lagoons and channels, and walk over the stony hills of Babeldaob and around the notched shelves of the Rock Islands. Their formal education about the earth must remain firmly rooted in the direct experience of their world and must be supplemented by good laboratory experiments which challenge their creativity and ingenuity. Classrooms, books, and videos serve to expand their experience to the wider world and to cement their experience to the underlying principles. The challenge to the teacher is to remove the obstacles to the student's direct experience, and to resist depending on books as the only source of information and the classroom as the only experience. The teacher must find field resources that provide the best learning, many of these may be close by and accessible on foot. But several longer trips each year to the Rock Islands and Babeldaob can expand the students' understanding of their home environment.

The youngest students learn to recognize subtle variations in Palau's seasons, the changes in temperature, rainfall, and wind direction - **The Atmosphere**. They learn about the collection of rain in the earth's aquifers, lakes, and oceans - **The Hydrosphere**. They learn from maps to identify the Earth's oceans and Palau's location among the islands of the South Pacific. They learn how soil forms from rocks, supports life, washes down streams and deposits in estuaries and ocean bottoms - **The Solid Earth**.

In middle elementary students grasp the idea of cycles. They learn how water evaporates from the warm sea and falls again as rain on land and sea or as snow in colder climates. The circulation patterns in the atmosphere and oceans are learned. Upper elementary students learn how sediments harden into rock and how some of those rocks are buried deeply and transformed or even melted by the heat and pressure inside the earth. The presence of fossils in sedimentary rocks and the relationship between layers presents a picture of the vast age of the earth and of organisms which used to inhabit it. The students learn how the interactions of crustal plates produce earthquakes, tsunamis, and volcanoes

High school students learn how the **Flow of Matter and Energy** energizes the earth's systems. With their growing sophistication, they understand how the flow of heat from the sun or earth's interior produces density differences, and how those differences produce movement when acted on by the forces of the earth's gravity and rotation. They see how these principles account for the circulation of the atmosphere, the oceans, and the mantle of the earth, and therefore the weather, ocean currents, and the movements of the earth's crustal plates. In their growing sophistication students use the concept of systems to organize their understanding of the physical world. They see that the solid earth, oceans, and atmosphere are systems which affect each other, and which join together with living systems to form a diverse and beautiful living earth system.

Human interactions with the earth's environment are studied at each level of sophistication, the benefits of technologies as well as the damage. Taking only what is needed from the lagoons forests, and streams is learned from traditional conservation practice. Direct observation of silted coral reefs and runoff from streets and construction sites are encouraged, and students are urged to find better methods which permit desirable development with less damage.

E. Matter, Energy, and Motion

Basic units of nature and the forces and transformations that affect them

The study of matter begins in elementary school with experiences, constructions, and descriptions, and the sensory knowledge of motion and force. Classification schemes develop spontaneously as students learn about more subtle properties of matter and as they find unexpected characteristics and structures under magnification.

Matter is found to have mass and take up space. Energy is comprehended as that which gets work done. Experiments with magnets, gravity, friction, and springs demonstrate how force affects Motion. In upper elementary grades the concept of small, universal building blocks evolves into elementary atomic theory. Electrical forces involved in chemical bonding are pictured and energy is seen as that which drives phase changes and chemical reactions. Evidence that every energy transformation is accompanied by heat demonstrates that some energy becomes unavailable to do further work.

In high school the structure of the atom is supported by the student's own study and by the historical works like that of Rutherford. Periodicity and reactivity are seen as functions of atomic structure. The balance of electrical forces between the atomic components is understood to bond atoms into molecules and crystals. Relationships among forces and forms of energy are defined in mathematical terms and shown to apply equally to the microscopic and macroscopic worlds. Chemical reactions and their rates are demonstrated and understood in terms of atomic and molecular structures and the environmental conditions. Finally the nucleus of the atom is opened for examination; radioactive decay and nuclear structure are examined and the huge release of energy from certain nuclear reactions is grasped.

F. Life on Earth:

How living things relate to one another and to their environment.

From their earliest years children experience the **Diversity of Life.** They absorb vast amounts of information about life by observation and by questioning their elders. They naturally classify organisms in a way that makes sense to them: banana trees (*mechod*) are different from banyon (*hulk*); rabbit fish (*bednut*) are not tuna (*katsuo*). By observing that coconut trees come from coconuts and chicks from chicken eggs, the concept of

Palau Ministry of Education / Science Curriculum Framework

The challenge to the teacher is to build on this natural way of learning. Growth is fullest if the student has a regular, direct connection with the living world in lagoons, barrier reefs, wetlands, forests, and streams. Films, videos, and books bring examples of life from outside the student's experience: giant redwoods, walruses, kangaroos, krill. Careful study of decaying plants and animals and their quick return to organic soil demonstrates the **Interdependence of Life**, but the underlying microscopic processes are not comprehended until the student learns about atoms and molecules and the laws of motion and energy. A distinction between photosynthetic producers and decomposers and study of food chains promotes an understanding of the **Flow of Matter and Energy** in living systems. Students discover that, while matter flows in a multitude of continuous cycles through food chains, energy is captured only by plants from the sun, passed from one organism to another, used for a variety of processes, and released as heat along the way. Systems concepts are used to understand the workings of cells, organs, organisms, and ecosystems.

The first recognition of **Cells** may come as students examine stream or lagoon water with a magnifying lens. Later, microscopic examination of single-cell life, small lagoon animals, and tissues demonstrate that all of life is based on cells. Microscope slides of tissue samples and videos showing the division of cells and the immense variety of tissues in plants and animals help the student learn how organisms and their embryos develop and grow. Still later knowledge of molecules and their structures, functions, and reactions lead the advanced student to an understanding of the flow of matter and energy inside and between cells. A grasp of the molecular structure of proteins provides the basis for understanding the basis for genetic coding and heredity.

The student learns along the way about the earth processes which trap fossils in mud, lime, and sand and solidify them into rock in accumulating layers. The enormous time spans involved in these processes are comprehended as they learn about radioactive decay and how it is used to find the ages of rocks. As the connection between types of fossils and their ages becomes clear, and that information is connected with the varied anatomies of plants and animals, the concept of **Evolution of Life** is formed. The history of Darwin's journeys, discoveries and finally his theories are appreciated.

Palau Ministry of Education / Science Curriculum Framework

G. The Human Organism

The uniqueness of being human

The identity of young children is intimately tied to everything they experience: their family, their home, their pets and toys. In early elementary school the ability to separate "self" from "other" still grows slowly from experiences with peers and teachers. With the growing maturity in middle elementary, the concept of a **Human Identity** separate from the environment and from other animals takes shape. This identity sharpens as the unique characteristics of being human come into focus: the use of advanced tools, inventiveness, abstraction, and expanded learning. In high school the differences among humans in genetic and organic makeup are found to be inconsequential when compared with differences from other species.

The entire life cycle of humans is the subject of **Human Development**. At first students build on their natural curiosity about the birth and growth of infants. Later see changes at every age and learn about the inevitability of death. In upper elementary they comprehend the complex unfolding which occurs in the embryo and young child and recognize the point of time where life begins. The chemistry, physiology, and anatomy of development are studied in high school and important ethical questions about the technology and politics of controlling birth and death are asked.

The **Basic Functions** which support human life, many of which are shared with all organisms, are introduced in terms of functions of the external body parts. As their understanding grows students explore the functions of single internal organs, and later they are able to grasp the interactions of organs with one another and with the body's biochemistry. In high school they comprehend the functions of the immune, endocrine, and nervous systems.

The function of **Learning** is examined in relation to other organisms. The ability to learn so much and to use language and other abstractions are found to be uniquely human. The function of the senses in learning is examined in early elementary. Middle elementary students find that learning helps them solve new problems based on old experiences, and recognize that different people have differing skills, interests, and attitudes about what is important. Later the theories of learning are considered and the students gain experience in what it means to learn through tutoring their peers and younger students.

H. Technology

Design, processes, systems, and their consequences

"Children are veteran technology users by the time they enter school. They ride in automobiles, use household appliances, operate wagons and bikes, use garden tools, help with the cooking, operate the television,

The distinction between **Technology and Science** is made much later. Too often a society draws too stark a line and the two are divorced in students' minds. This divorce shows up as a blindness to ethical and moral choices. The scientist takes no responsibility for the discovery or invention, saying that the ethical choice lies with the engineer and what they do with the new science. The engineer takes no responsibility for the use of the new science, saying that if he/she doesn't utilize it, someone else will. The challenge to the teacher is to keep the line between technology and science blurred and let the two fuse and interact. When the two are bound together and related to all of society's needs, there can be no escape from responsibility for the consequences.

Students first develop their knowledge of **Design and Systems** through direct practice and play. Later their inventive energy can be channeled to achieve results which may be more satisfying and require less effort. They learn the nature of constraints, trade-offs, and side effects in their designs and constructions. Students learn to think more in terms of systems and less in terms of disassembled parts. Concepts such as input, output, feedback, storage, and delay are incorporated in their planning of a project. They learn that each system is made up of subsystems, and that it influences the larger system of which it is a part. Before they leave high school they are able to design a manufacturing or construction process from start to finish. They account for the impacts of the process from the gathering of resources to the disposal or recycling of the disassembled product, and for its delivery, operation, maintenance, and repair during its lifetime.

When science and technology are linked with the society's well-being, **Technology Issues** become an important part of students' awareness, concern, and dialog. They learn early that every human activity carries damaging side effects along with the desired benefits. As their knowledge and sensitivity grows they learn to watch for more subtle damages, and they can see the consequences in even the most beneficial of technologies. The challenge to the teacher at this point is to keep students debating, exchanging ideas, and working out differences of opinion, rather than blindly locking into a set of beliefs about benefits or damages of a technology and lose sight of the balance.

Palau Ministry of Education | Science Curriculum Framework

CHAPTER 4.

The Instructional Approach of the Palau Science Curriculum

The preceding sections described why it is so important that our students became scientifically literate, and outlined the goals of the <u>Palau Science Curriculum</u>. How well we are able to accomplish our goal to send our students into the future and back to their communities with the skills to make sound science-related choices depends greatly on <u>how</u> our science curriculum is taught and supported. Like all children in the world, the children of Palau have a natural curiosity about the world in which they live. The science curriculum should build upon this natural curiosity and encourage students to look for patterns and relationships, ask questions, and think about the increasingly technological world in which they live. Every aspect of the science program should work to enhance the growth of all students and help them develop into lifelong learners.

What follows are a number of brief suggestions that the science Curriculum staff would respectfully like to make about the instructional approach we believe would best serve the students and the intent of this curriculum.

The Role for Our Teachers:

The teacher's role in the curriculum is critical. He or she must carry on many different roles all at the same time if all our students are really to attain the goals and objectives that have been set forth in Chapter 4. If our curriculum is to succeed, then teachers need take on the following roles:

o GOOD ROLE MODEL

The teachers of Palau play a crucial role in such a program. They must communicate an interest in and an enthusiasm for all kinds of science. The role of the teacher is to create an environment which encourages all students to actively participate in the processes of science. Teachers should encourage students to explore the world around them, to ask questions, to look for new ideas and patterns, and to form their own scientific hypotheses without the fear of being wrong. By creating a safe and nurturing environment in which students are free to explore, the teacher can help each student reach his or her full potential.

o COACH for YOUNG SCIENCE EXPERTS

Developing our students to be scientific in their thinking and problem solving will only happen if they receive ample opportunities to exercise and refine these scientific skills. As "coach", the teacher's role is to facilitate, set-up, arrange, provide, but not to "do" for the students. The science-related skills that will need refining include the following:

Palan Ministry of Education Science Curriculum Framework

- OBSERVING: using the five senses to gather information about events or objects.
- CONTROLLING VARIABLES: making sure that certain variables do not change during an experiment.
- CLASSIFYING: establishing order to events or a collection of objects.
- DEFINING OPERATIONALLY: defining something in terms of what is done or observed rather than in terms of abstract concepts.
- MEASURING: using measuring instruments to assign a number and unit to an event or object.
- USING NUMBERS: the application of ordering, counting, and computing to quantify data for investigation.
- INFERRING: using observations to reach a non-observable conclusion.
- INTERPRETING DATA: using collected data to make a prediction, inference, or hypothesis.
- HYPOTHESIZING: making a tentative assumption in order to test its logical or empirical consequences.
- FORMULATING MODELS: to use existing data to construct an explanation which describes an entity or event.
- PREDICTING: using observations, inferences, and measurements to make a future observation.

o BUILDERS OF SELF-ESTEEM & CONFIDENCE

We know that our students learn best when they are able to learn in caring environments where they feel that they are accepted and respected. Every effort must be made by the teacher to allow each student an opportunity to have her and his feelings, ideas, and school work acknowledged and respected.

It is important that the teacher establishes and maintains expectations and rules that help the students work together in a friendly, cooperative, and caring way. For example, it should be clearly communicated to everyone in the school that name calling and the humiliation of members of the school will not be tolerated.

Praise for good effort and improvement from the teacher and fellow students is the most positive way to build positive attitudes about learning, and feelings of self-worth by our students. Negative reinforcement must be used sparingly if at all.

The building of self-esteem can also be accomplished by the teacher in the type of readings that he/she selects for the students. As much as possible, students need to see their own experience being written about, see their own people in the role of "author", their interests and reality the topic of the assignments and discussions.

o GOOD TOUR GUIDES INTO NEW "UNCHARTED TERRITORY"

When new material is being introduced, students need teachers to act as guides for them. Good tour guides will do at least the following:

- Probe for prior knowledge.
- Provide students with necessary background information.
- Introduce the vocabulary in meaningful context.
- Help students relate what is being learned to their own experience
- Have students make predictions.
- State the purpose for the learning.
- Provide extra activities which will offer opportunities for the students to reinforce their new learning.
- Encourage students to ask questions.

o INTERPRETERS

Occasionally, there will be content covered in the curriculum which is a little removed from the students' immediate environment and experience base, but was included in the curriculum because there is a feeling that this information will eventually be helpful and necessary for the students. In these incidences, it is important for the teacher to act as a 'translator' and help the students understand material that might be more difficult to understand given their knowledge and experience base.

The teacher should use his or her knowledge about students' experiences, the curriculum, and the local environment so as to draw relevant and clear examples that will help the class better understand the ideas and concepts which might be more "foreign" to them.

The more relevant the teacher can make the curriculum, the better. Please take every opportunity to do this. The framework is merely the conceptual skeleton which requires a creative, dedicated teacher to help it come alive for the students.

o LEARNING STYLES SPECIALISTS

Our students need teachers who will work to make sure that the needs of <u>all</u> students in the class are being met. Often times this means delivering the lessons using a variety of approaches. From experience we know that some students learn information better when they can both hear and see what is being discussed. Also, most of us remember more of the content being studied when we have been provided with opportunities to touch or actively get involved with the information being discussed.

Whenever possible, the teacher is strongly encouraged to vary the ways the science information is presented. It is much more interesting and meaningful to the students when the teacher incorporates audiovisuals, field trips, role plays, guest speakers, films, props, etc. in his or her instructional approach. As an island environment, Palau offers extraordinary opportunities for science field trips. It is important that teachers take advantage of this environment to teach their students about science.

All students need to increase their confidence in applying what they learn in science. While it may be easier to pace our lessons and activities to the "brightest" students in the class, this approach does not

serve the best interest of the class, community, or curriculum. The mental, and emotional needs of all students should be kept in focus. A resourceful teacher will enlist the help of the quicker students to help with the instruction of those that are slower to grasp the information. This approach is very useful and is almost always beneficial to all parties

o PARENT/COMMUNITY INVOLVEMENT SPECIALISTS

When the families and parents of our students are aware of what is being taught to their children via the science curriculum, there are more opportunities for the lessons to be actually reinforced and learned. Whenever possible, it is important for the teacher to keep the students' parents and families well informed about the curriculum and whenever possible enlist their assistance to help their students learn the science information and strategies that are being taught in school

Our goal is to get better and better at how we teach and how our students learn science. We encourage teachers to use the following instructional strategies recommended by <u>Pacific Standards for Excellence in Science:</u>

MOVING AWAY FROM	TOWARD
- Science for some students	- Science for all students
- Reading/language first	- Inquiry and activity-based instruction accessible
	to readers and non-readers
	- Integration of language development
- Direct instruction (teacher centered)	- Constructivism (student centered)
- Passive learning	- Active learning
- Individualistic learning	- Collaborative/cooperative/social learning
- Homogeneous grouping	- Heterogeneous classes
- Atomistic/disconnected study	- Holistic/connected (integrated, sequential,
	thematic approaches)
- No technology	- Technology integrated with science
- Single exposure to concepts	- Spiral curriculum with concepts revisited
- Traditional inquiry	- New modes of inquiry based on multiple ways of
	knowing
- Testing	- Multidimensional assessment integrated with
	instruction

Concept:	Goals: Students will be able to	Student Objectives: Students will be able to
A SCIENCE AS INQUIRY	1. INQUIRY SKILLS AND ATTITUDES:	1.1 Ask questions about nature.
The skills, attitudes, and values of science.	Demonstrate knowledge and understanding of the scientific process and profession.	1.2 Compare and contrast objects in terms of similarities or differences.
	process and processing	1.3 Observe a change that takes place and infer the cause.
3. MANIPULATIVE SKILLS: Demonstrate the manipulative skills product to wards with physical		3.1 Use rulers, thermometers, balances, and magnifiers.
	needed to work with physical samples.	3.2 Compare lengths of objects using both standard and nonstandard units.
		3.3 Organize and sort objects using a variety of criteria (color, size, shape, etc.).
	4. COMPUTATIONAL SKILLS: Apply the computational skills needed to analyze data.	4.1 Read, write, and order numerals 1-20.
		4.2 Write numerals 1-20 to match a set of objects.
		4.3 Identify and extend patterns in a sequence of numbers or objects or pictures.

Concept:	Goals: Students will be able to	Student Objectives: Students will be able to
B. THE ISLAND ENVIRONMENT The uniqueness of small islands in large oceans	THE NATURAL ENVIRONMENT: Demonstrate an understanding of the natural environment of islands (local).	1.1 Identify several local fish, crabs, clams and sea cucumbers. 1.2 Describe a rainstorm: before, during and after.
	2 DEODI E ON ISI ANDS	1.3 Identify several local plants and trees.1.4 Draw pictures of several kinds of fish found in the lagoon.2.1 Tell local stories and legends about Palau.
	2. PEOPLE ON ISLANDS: Describe the interactions of people and the island environment (local).	 2.1 Tell local stories and regerius about Falaut. 2.2 Name six foods grown locally. 2.3 Draw pictures of local houses. 2.4 Listen to and relate the remembrances of elders.
		2.5 Work together in small groups to act out a Palauan legend.

Concept:	Goals: Students will be able to	Student Objectives: Students will be able to
C THE UNIVERSE What we see in the sky and how it affects	, , , , , ,	1.1 Describe what they see in the sky during nighttime and daytime.
our lives.		1.2 Draw pictures of the moon at different times of the month.

Concept:	Goals: Students will be able to	Student Objectives: Students will be able to
L D OF THE PARTY	1 ATT COOR ITED T	
D. THE EARTH	1. ATMOSPHERE:	1.1 Discuss safe places to go during a typhoon.
Structure and	Demonstrate knowledge of the	105:11
Systems of the	atmosphere's structure and process.	1.2 Explain, using observations and
Atmosphere, Oceans, and Solid Earth		experiments, that air surrounds us.
		1.3 Show that water disappears from an open container but not from a closed container.
		14 Describe a rainhou
	2. HYDROSPHERE:	2.1 Identify and describe places on the earth that
	Describe the hydrologic processes including ocean circulation.	are covered by land or water.
		2.2 Identify places where fresh water is found and explain why it is found there
	3. SOLID EARTH:	3.1 Collect rocks they like for a class collection.
	Demonstrate knowledge of the	
	earth's structure and earth shaping	
	processes.	

Concept:	Goals: Students will be able to	Student Objectives: Students will be able to
E. MATTER, ENERGY, AND MOTION Basic units of nature and the forces and transformations that affect them	MATTER: Demonstrate the ways simple units build complex objects and account for the properties of matter.	1.1 Build a variety of objects and structures from a set of basic blocks 1.2 Describe what material objects are made of cloth wood, metal, etc. 1.3 Identify properties of objects by using their senses: color, weight, shape, etc.
	2. ENERGY: Identify energy's many forms, transformations and uses.	2.1 Explain how turning off lights or machines that are not in use saves energy.
	3. MOTION: Identify various types of forces and motions and the laws that explain	3.1 Distinguish between pushing and pulling an object.
	them.	3.2 Distinguish motion from stillness, fast from slow, up from down.
		3.3 Observe and identify forces that slow down or stop an object from moving.

Concept:	Goals: Students will be able to	Student Objectives: Students will be able to
F LIFE ON EARTH How living things relate to one another and to their environment	DIVERSITY OF LIFE: Demonstrate comprehension of biodiversity and its importance to life.	 1.1 Sprout seeds in the classroom, with each student taking responsibility for a plant. 1.2 Describe similarities and differences among some plants and among some animals. 1.3 Classify plants according to their similarities and differences. 1.4 Compare animals to people, and explain the basic needs of both.
		1.5 Identify one plant and one animal that lives only in Palau.
	4. INTERDEPENDENCE OF LIFE Identify webs of interdependence among organisms.	4.1 Give examples of animals which use plants for food, shelter, and nesting.

Concept:	Goals: Students will be able to	Student Objectives: Students will be able to
G THE HUMAN ORGANISM	HUMAN IDENTITY: Identify the behaviors, features, and	1.1 Identify basic physical needs of humans.
The uniqueness of being human	skills which set humans uniquely apart from other animals.	1.2 Name several roles of family and community members
	2 HUMAN DEVELOPMENT Describe all parts of the human life cycle, from embryo and development to death.	2.1 Grow a smell slam them seed to maturity
	3. BASIC FUNCTIONS: Identify the basic functions of human life, including those shared by other organisms.	3.1 Describe how the eyes, nose, legs, arms, and mouth help a human get food, avoid injury, and communicate with family and friends
The state of the s	4. LEARNING: Describe the senses, processes, and	4.1 Identify their five senses
1	skills needed for optimum learning.	4.2 Explain how senses can work together.
		4.3 Experiment to find out now the pupil of the eye works and why eye safety is important

Concept: Goals: Students will be able to		Student Objectives: Students will be able to
H. TECHNOLOGY Design, processes. systems, and their consequences	TECHNOLOGY AND SCIENCE: Describe the ways science and technology support and advance one another and assess the impacts of the connections DESIGN AND SYSTEMS: Demonstrate the application of scientific principles to practical ends.	 1.1 Describe several inventions in their homes that their grandparents didn't have when they were young 1.2 Describe how they use a familiar tool and how it helps them do a job. 2.1 Design and make simple things with available tools and materials. 2.2 Develop skills in using hand tools.

			·
·			