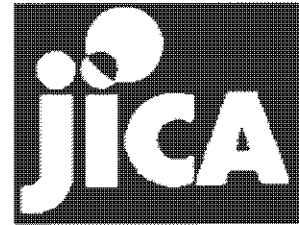


DEPT Department of
Educational
Planning and Training
Ministry of Education
The Union of Myanmar



Teacher's Guide

General Studies (Grade 1)



JICA LIBRARY



1176392{7}

March 2004

International Development Center of Japan (IDCJ)

SCS
JR
04-008

DEPT Department of
Educational
Planning and Training
Ministry of Education
The Union of Myanmar



Teacher's Guide
General Studies (Grade 1)

March 2004

International Development Center of Japan (IDCJ)



1176392【7】

TABLE OF CONTENTS (GRADE 1)

How to use this Teacher’s Guide	i
What is CCA ?	viii
Designing CCA lessons	xiv
Assessment for CCA	xviii
General Studies – Note for Teachers	xx

SECTION 1: NATURAL SCIENCE

Chapter 1: Living Things

Topic 1: Animals That Can Be Found in Different Places	1-1
Topic 2: Different Plants Present in Various Places	1-7
Topic 3: The Requirements of Living Things	1-14
Topic 4: Caring of Living Things	1-26

Chapter 2: Matters

Topic 5: Study of Objects around One’s Environment – Name of Objects and Their Usefulness at Home and in the School Garden	2-1
Topic 6: Observation of Objects around One’s Environment – Color, Shape and Quality	2-10
Topic 7: Making Comparison of Objects – Heavy and Light Objects	2-20
Topic 8: Differentiating Objects in What They Are Made Of and Recycling the Used or Waste Materials	2-27

Chapter 3: Energy

Topic 9: Heat Emitting Objects and Sources of Heat	3-1
Topic 10: Voice and Types of Sound	3-11
Topic 11: Light Emitting Objects and Sources of Light	3-25
Topic 12: Magnet	3-39
Topic 13: Advantages and Dangers of Electrical Appliances	3-46

Chapter 4: Earth and Space

Topic 14: Observation of Weather Condition	4-1
Topic 15: Observing Characteristics of Water Based on Its Source	4-9
Topic 16: Observing the Color and Texture of Soil in Different Locations	4-19

SECTION 2: MORALS AND CIVICS

Chapter 5

Topic 17: Extraordinary Country	5-1
Topic 18: Politeness at School	5-9
Topic 19: Sports, the Collective Activity	5-20
Topic 20: Our Duty	5-29
Topic 21: A Well Bred Son	5-34
Topic 22: The Loving Kindness of Parents	5-40
Topic 23: Preserve the Culture	5-46

SECTION 3: LIFE SKILLS

Chapter 6

Topic 24: Personal Hygiene – (a) Healthy Practice	6-1
Topic 25: Personal Hygiene – (b) Washing Hands	6-9
Topic 26: Food and Eating	6-18
Topic 27: Dress for Health and Convenience	6-29
Topic 28: Communicating to Other People	6-36
Topic 29: Malaria Disease	6-45
Topic 30: Dengue Fever	6-49
* Topic 31: <i>Sample Lesson of Multi-Grade Teaching</i>	6-52
Preservation of Environment – Putting Away the Garbage Systematically	

How to use this Teacher's Guide

Targets

This Guide is created mainly for primary school teachers to teach General Studies. To teach the contents in General Studies with joy and let children understand them more deeply, primary teacher can use this Teacher's Guide with many ideas and information necessary to teach General Studies from the **Child-Centered Approach (CCA)**.

Please keep in mind that the target learners of the General Studies are children of KG . They are at the most sensitive and important period in the basic education. Therefore the teachers are expected to formulate class lessons which constantly stimulate the interests and curiosity of children with many attractive methods and motivations.

The studies through "Playing for fun" is very important KG children and creating an arena in the learning process for them to play for fun freely and to enjoy themselves is essential. The children will acquire what is targeted through CCA with all their mind and body in such activities of fun. In order to do so, activities and games for fun of various kinds should be introduced in the General Study. This Guide can provide various ideas and information necessary to teach General Studies from CCA point of view. In this sense, this can be useful for education concerned people such as trainees and trainers in the Education Colleges

Contents

This Teacher's Guide includes the following contents:

- | | |
|------|-------------------------------------|
| I. | What is CCA ? |
| II. | Designing CCA lessons |
| III. | Assessment for CCA |
| IV. | General Studies – Note for Teachers |
| V. | Topics in General Studies |
| VI. | Structure of the topic |

Each topic of General Studies consists of the following structure:

Structure of the Topic

1. Key Concept
2. Learning Objectives { General Objectives
Specific Objectives
3. Activities involved
4. Teaching/Learning Materials
5. Before Getting Started (Background information for teachers)

6. Lesson Planner
7. Teaching/Learning Procedure
8. Assessment
9. Reference

For effective use of this Teacher's Guide

This Teacher's Guide adopts an index style. You can search for topics quickly without reading through everything. Basically you can pick up only necessary issues to get information and to prepare the lessons. However, it is highly recommended to take time to read through this Teacher's Guide, as this Teacher's Guide introduces a new concept of the Child-Centered Approach (CCA) for Myanmar's basic education. Fully understanding this concept requires time and serious consideration.

First of all, it is significantly important for teachers who are unfamiliar with the idea of CCA to read carefully the sections of **I. What is CCA?** and **II. Designing CCA lessons**. Even for teachers who are familiar with CCA, it is highly recommended to read these sections, as they provide a concrete description of CCA lessons.

Assessment is one of the most important activities in education. Even now there is no perfect assessment method. There are various assessments used in the current educational institutions considering situations and conditions of learners and teachers. The section of **III. Assessment for CCA** introduces the importance of CCA assessment.

The section of **IV. General Studies – Note for Teachers** provides the framework of General Studies at primary education in Myanmar. When teaching a particular topic and item everyday, you tend to forget why and for what purpose you are teaching. Without a solid view of the whole picture, it is impossible to provide a good lesson. If you have questions about "Why should you teach this?", it is suggested that you review this section and get the whole picture of what General Studies is.

In each chapter, there is full of ideas for conducting CCA lessons: **Key Concept, Learning Objectives, Teaching/Learning Materials, Before Getting Started (Background information for teachers), Lesson Planner, Teaching/Learning Procedure, Assessment and Reference**. It is not compulsory to follow the ideas in this Teacher's Guide. They are only examples on how to conduct CCA lessons. You can pick up necessary information randomly to use for the creation of your original lessons.

Before Getting started (Background information for teachers) can provide useful information and knowledge for the preparation of the each topic deeply and widely. These background information described important background and brief objectives for the implementation of lessons. Teachers must read it carefully prior to the lesson planner.

Lesson Planner is an entire idea to teach one topic. In one lesson, there are several periods to teach. Each period is not separated, but is directly related each other like a story. Teachers must understand the continuation of each period by reading the Lesson Planner.

Each topic include *Specific Objectives, Teaching / Learning Materials, Teaching / Learning Procedure, and Assessment*. Teaching / Learning Procedure is described in detail and teachers can follow this procedure to implement a CCA lesson. However, this

is only an example. It is possible for some areas that these examples of lesson plan will not fit. Therefore, it is highly recommended for teachers to create your own lesson plans based on the examples.

Reference provides more additional and useful information for teachers. Teachers do not have to teach children this information in the class, but the information can make lesson more interesting if teachers know it. This information, therefore, is prepared to make unique ideas and interesting lessons. The more information, knowledge and skills a teacher has, the more lessons can be interesting.

Background information for the successful implementing of the Guidebook

The studies through "Playing for fun and Seeing is believing " is very important for KG children and creating an arena in the learning process for them to play for fun freely and to enjoy themselves is essential. The children will acquire what is targeted through CCA with all their mind and body in such activities of fun. In order to do so, activities and games for fun of various kinds should be introduced in the General Study through this guidebook. **This guidebook will serve you for the source of cultivating the creative and thinking power.** The essence of CCA lies in the children's understanding through their own senses, exercising their five organs fully, such as watching, listening, speaking and expressing (Writing, Reading, Drawing and etc.) aggressively. So the teachers are constantly expected to provide environment audio-visually interesting for children, creating and utilizing materials which make them feel enjoyable. The traditional plays and games of Myanmar should be included effectively. **The cultural diversity of Myanmar provides different kinds of poetry, songs and tales in each area.** The most appropriate poems, songs, games and expressions specific to the area should be given importance. At the same time songs and tales which are shared commonly all over Myanmar should also be introduced in good number for the sharing and unity of Myanmar. For this purpose, the teachers should be able to understand the lesson plans described in the Guide not just theoretically but practically and concretely in depth. The classroom environment may not be always appropriate for carrying out CCA (Child Centered Approach). For example, *some classrooms may not have dividing wall partition facility in the classroom; or necessary teaching and learning materials may not be available.* In such situation, **what is important are teachers' new ideas and inventions in creating necessary teaching materials based on the local resources and flexible methods depending on the environment, keeping the learning activities described in the Guidebook as the basis.** When audio-visual materials and effective teaching materials are not available, it is important that the teachers produce pictures and picture storytelling themselves even with the limited picture quality and show them to children. Such attitude makes a difference. **And it is important to ask children questions constantly such as "What is that?", "Why is that?" at the time of evaluation. Such questions and doubts which suit the interests and curiosity of children from their essential point of views should be given for further enhancing them.**

There are experiments and questions raised from children and groups in CCA. At the end of the lesson, therefore, the correct conclusion of such experiments should be told to the children. It is a right method to make children think themselves through experiments and make them to come to an conclusion through numerous trials and errors. However, it is also necessary for teachers to tell children which is the correct conclusion and why it is so clearly. Otherwise there is a danger that children may feel lost, not understanding what is the right conclusion.

When CCA is extensively practiced, children behave freely and aggressively. They may become more active and make a lot of questions. They may take the situation for granted and misunderstand that they could do anything as they wanted to. And teachers may have difficulty in managing the class. In such a case, teachers should observe the whole class situation well and try to control the psychology and desires of children in nurturing creative and thinking powers.

Characteristics and New Viewpoints in the Guide Book of the General Studies for lower primary schools

The preparation of the Teachers' Guide based on the Child-Centred Approach (CCA), which was carried out from 2001 to 2004, has been completed along with the training of the counterpart experts. The actual lessons of the General Studies for KG, G1 and G2 that were conducted in December 2003 clearly show the significant improvement, achievement and discovery by the teachers themselves. Their teaching styles were already quite different from the conventional teaching methods prevailing in the schools in Myanmar.

This particular Teachers' Guide is different from those usually prepared by the writers who sit in their offices and simply send their manuscripts to the press, or those based merely on the discussions in the rooms. This Guide has been tested and revised based on the students' feedback over the period of 3 years. Because the process of preparing this Guide involved the training of curriculum developers and teachers who acted as counterparts at the same time, the Guide turned out to be a relevant and practical one for the schools in Myanmar. The memorizing and reciting repeatedly is the conventional teaching style in Myanmar widely practiced. One of the disadvantages of this teaching/learning style includes that teachers and students simply go on memorizing and reciting even if they do not understand their meanings. Only one-way communication takes place in the classrooms from the teachers to the students, and there is very little or no attention on the part of teachers to be given on how to make the lessons easily or thoroughly understandable by the students. As a consequence, teaching aids were rarely used and the approaches based on children's needs and psychology and the teaching/learning methods allowing the students to experience, think, imagine and create did not exist. In view to improve the teaching/learning situation, the Child-Centred Approach (CCA) was introduced in the lessons in terms of learning objectives, motivations, content, activities, outcome and assessment. The followings are the major improvement for the General Studies lessons.

(1) Large part of the lessons for KG, G1 and G2 was given to make children themselves experience and to make them discover themselves through playing, based on children's essential qualities and psychology. It is reported that the rate of dropout from KG is very high in Myanmar. Therefore it is very important to make the schools interesting and enjoyable for young children. For this purpose various methods and devices in teaching were included such as "Story-telling", "Reading Books Aloud to Children" and "Picture storytelling". Various elements from the Myanmar traditional culture such as Myanmar songs, poems and riddles were included, which helped to inspire the teachers and students for enjoyable teaching/learning.

(2) There were cases when the teachers teach lessons without understanding the purposes of certain lessons and their content. In order that they understand the purpose and the content of the lessons well enough and clearly, application in actual daily lives and examples using familiar objects in the respective locality were emphasized in this new Teachers' Guide. In this way, teachers as well as students can find the lessons familiar with themselves and can develop their interests further from their

everyday life experiences. Memorizing names and complex knowledge without understanding what they really are have been quite common in the country, so instead the relationships and meanings were made clearer so that they understand while they teach and learn.

(3) For making the lessons interesting and enjoyable, the effective teaching aids play important roles. However, there are hardly any or very few teaching aids prepared and used in most of the schools at present. Therefore in this Guide, variety of teaching aids and simple-to-make materials were introduced. Once the teachers see themselves that children are given a lot of stimulation and motivation for learning through the interesting teaching aids, the teachers would even try to make new teaching/learning aids of their own. Therefore methods of preparation and usage of low-cost but effective teaching aids are explained.

(4) Numerous illustrations are newly prepared for this Guide for the teachers to understand the content easily. The illustrations themselves have several kinds of styles depending on their purposes and functions, therefore, much attention was given to provide the most suitable illustrations for the specific lessons. The kinds of illustrations used in the Guide include, for example: illustrations of the birds' eye view through which the whole scene of different elements can be observed simultaneously; comical style to enjoy the stories; realistic and precise illustrations which needs accuracy in showing plants, animals, or science experiments. The combination of these different kinds of illustrations can enhance the interests of the teachers and students, and they are one of the key elements for a good Teachers' Guide.

(5) In the General Studies, more emphasis was given for the students to develop their abilities through experiencing, becoming aware of, thinking, imagining and creating things in their actual lives, rather than simple transfer of knowledge and techniques alone. Teachers are expected to constantly ask the students question such as "what is it?", "why is it?" and "how is it?" In order to encourage children's curiosity and interests, the active two-way communication between the teachers and the students was given importance. This was put into practice emphasizing the usage of five senses of children such as to see, to listen, to touch, to eat and to smell. The lessons are designed to promote actual observation, discovery, imagination, thinking, expressions by the children themselves and to collaborate each other to work in groups, thereby developing the children's thinking and voluntary capacities.

(6) Group learning activities were adopted frequently in the lesson plans so that the learning opportunities for each student are diversified. Students would be able to make their discoveries through individual approach as well as competing each other. It is often the case in the lessons in the plenary that the responses of the students tend to get monotonous. However, when each group is given the responsibility to carry out certain tasks, they can easily bring out ideas and discoveries of their own through competing each other. This is significant especially for a country like Myanmar with diversity of cultures. The local characteristics of various regions in the country and their cultural diversity are taken into consideration in the Guide. The examples of activities or materials appear in the Guide are presented in such a way that the teachers can apply them in their respective natural and local situations and can fully exercise their imaginations.

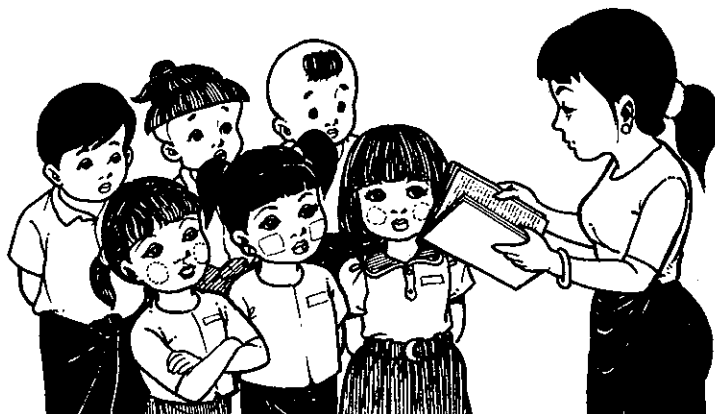
(7) The lesson plans in the Life Skills and Civics & Morals sections include the lessons on environment and traffic safety, for example, in which useful and practical knowledge in their lives are integrated with science and morals. Issues such as malaria disease and dengue fever which children face in their lives were taken up and their background situation and counter measures were sought out. The lesson plans in the Civics and Morals are based on the traditional wisdom and knowledge of Myanmar and

they were presented in a way communicable and useful for children. These points were acquired through the process of conducting actual lessons with trial and error. The content of this Guide was prepared to make all the lessons to be conducted with ease by the teachers, based on the Myanmar culture and customs. Therefore, it is strongly desired that this Guide will be circulated widely for the use in Myanmar.

Based on the Teacher's Guidebook, how to activate the reading activities for General Studies ?

In the General Studies the reading movement for children by teachers is of even greater importance in this day and age. The world has become increasingly smaller due to advances in science and technology, while economic, social and cultural structures everywhere are undergoing constant change. The establishment of reading habits for General studies through the teacher-child relationship is thus an urgent and crucial issue in Myanmar and for each individual. A child's first relationship is with its teacher and because of this bond of trust and dependence, the teacher-child relationship is the most effective place to begin establishing reading habits. Through the simple act of reading a book together they can share the world with each other and create a milieu for communication.

Every morning, any story for General Studies could be selected to spend 5 minutes for reading it aloud for children in the class. These stories should be most interesting and stimulating contents for the children in any subjects such as stories, adventures, history, comics, folktales and etc. These stories should not come from the textbooks at all. These are sub textbooks or reference reading materials chosen by teachers freely. These contents should be so free style for children due to motivating the reading habits for the children. However reading habits should be starting from children's good listening with pleasure and fun.



When the teachers read aloud for about 2 pages every morning, they could stop reading, saying that "That is all for today. The story is to be followed tomorrow!" Then they could start the actual lesson. In the following morning, they could read aloud the next two pages or so. In this way many stories can be told. When some stories are finished with reading, they can be left in the classroom so that the children could touch, see and read them themselves. Children would come to the class expecting to hear the story every morning. The joy of reading and understanding something new is experienced and it gives influence on the reading activities of children.

The books should first reach the ears of children and to be read out loud by adults, before the children read themselves with their eyes. The experience of listening to the stories is important as the very start of good reading habits.

A Picture Story Telling consists of normally around 5 to 10 picture sheets of tales and stories. As each picture is shown one by one to children, the story is told. The Picture Story Telling technique has developed in Japan well and in kindergartens in particular, it is widely used apart from reading books aloud for children.



The Picture Story Telling appeals to both children's visual and auditory capacity as the story is unfolded. Therefore it gives tremendous impact on pre-school, G1 and G2 children. Since this story-telling method with visuals appeals directly to the sensitivity of children, it is appropriate indeed for CCA and it allows two-way mutual communication for children and teachers and is proved to be one of the most effective learning media. In case teacher couldn't get these picture stories for children, it is advisable to produce these materials by teacher by themselves. Even simple and rough stories, teacher can provide most interesting and stimulating concerns for the children easily in any kind of topics.

Effective Method of Story Telling

Story Telling by teachers are so exciting time and interesting for the children. Teacher can tell to children any kind of stories such as Folktales, Fairy Tales and etc. based on the teacher's experiences. Therefore teachers are always requested to collect many different kinds of stories from local wisdom and many resourceful peoples in the community. Children will never forget these stories in their life. After reading these books, teachers should keep them in the class room for their reading habits for their daily life with their remind and interests.



What is CCA?

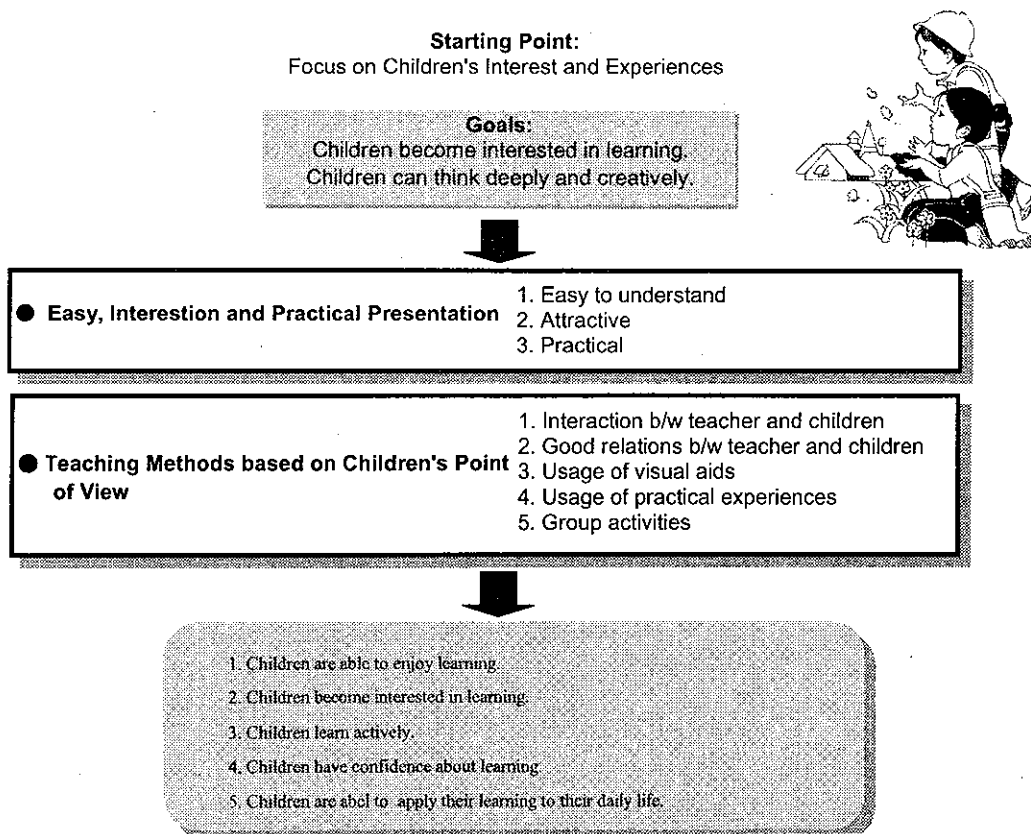
Basic Concept of CCA

The present rapid social changes have resulted in an increase in the complexity of knowledge, information and technology that teachers and children have to deal with. Therefore, it is now necessary to effectively attract the attention and interest of children in the classroom through transforming the conventional teacher-oriented approach into the child-centered approach (CCA).

Myanmar's conventional teacher-oriented approach whose main activity is memorization by heart, does not provide children with the capacity to understand the complex content of various fields of study or offer techniques necessary for everyday life. It does not improve children's thinking or problem solving skills. It can provide children with only a large amount of facts without offering any chance to think about them.

Rather than attempting to pass knowledge on to children through the teacher-to-children-one-way process, CCA recognizes the rich receptivity in children and seeks to build upon it through concrete experiences while focusing on the joy and excitement of experimental knowledge. CCA is based on the idea that children originally have rich inborn sensitivities and limitless talents and capabilities.

To facilitate the CCA process, the teacher needs to prepare effective, attractive, and simple educational materials and bring enthusiasm and creativity to the classroom. As CCA draws upon children's interests, it naturally stimulates children to learn. Therefore, it is important that teachers clearly understand CCA's concept, utilization and effectiveness. Furthermore, teachers must be knowledgeable in child psychology including a child's desire, willingness, interests, and feelings. Teachers must understand children as broadly and as deeply as possible. Therefore, it is extremely necessary for teachers to build a strong relationship with parents and communities where children live, and to look carefully into various issues faced by children.



Q1: What differences are there between conventional teaching and CCA?

Conventional teaching in Myanmar is usually lecture-style focusing mainly on rote learning. A teacher stands in front of the blackboard and explains the contents of textbooks to children. Teachers usually speak constantly to children and children listen carefully to teachers. Children are forced to memorize information in the textbooks as well as what the teacher says. Children never ask teachers any questions because they are scared of teachers and are strictly trained to obey them. At the end of lessons, teachers usually check how much knowledge the children have memorized by using written tests or oral questions.

On the other hand, CCA focuses more on the children's performance. A teacher is not the main person but a mediator or a facilitator. Teachers encourage children to participate in lessons actively and to think deeply about the issues. During lessons, children usually work on activities and discuss their ideas and opinions with their friends. The teacher observes and evaluates their performance through the lessons. The teacher sometimes checks children's levels of knowledge and skills obtained during the lessons by using written tests. Unlike the conventional way, the score of a written test is only a small portion of the evaluation.

While the conventional way of teaching can be conducted even without good preparation, the CCA lessons require a large amount of time for preparation. Prior to lessons, teachers must always seriously consider that how to motivate children to study, how to make them understand the lessons, and how to evaluate their performance. The more time you spend for preparation, the better lessons you will have. In addition, CCA classes frequently require improvisations during lessons as teachers usually encourage children to express their ideas and opinions freely and they cannot predict what ideas the children will have. Depending upon children's ideas and opinions, teachers have to make some minor changes in the lesson plan promptly (Refer to the table of "*Comparison Between CCA and Conventional Approach*").



Q2: Is CCA effective for children's education?

Yes, CCA is an effective approach for children's education. First of all, let's think about why we give children education. All parents and teachers expect children to live a happy and rich life in the future. Children are usually protected from any social problems when they stay with their parents. However, once becoming independent, they have to deal with issues by themselves. In society, there are various problems and difficulties we have to tackle. Whether or not we live a happy life depends upon our knowledge and skills of how to deal with these problems and difficulties. We believe that children can obtain such knowledge and skills through education.

The conventional teaching method focuses mainly on memorizing facts in textbooks. Teachers force children to memorize and the children blindly obey them. In the short run, children's knowledge increases rapidly through this method. It can be good for preparation of examinations and interview tests. However, in the long run this method is not effective. Children easily forget such knowledge or they cannot apply it to different situations because they have only memorized it without understanding its meaning.

On the other hand, CCA lesson's aim is to develop children's deep understanding of issues. In CCA lessons, the teacher first motivates children to study by starting a lesson with children's experience and prior knowledge. The teacher then encourages the children to participate in the lesson through activities and discussions. During the lessons, children usually work actively. They think about the questions the teacher raises, discuss with friends, share their ideas, and find some answers. Children understand the real meaning of issues through these activities. Once they obtain knowledge in this way, they cannot forget it easily. They also can apply this knowledge to different situations. Although CCA requires much more time than the conventional way, it is one of the most effective approaches for education.

Comparison Between CCA and Conventional Approach

		Child-Centered Approach (CCA)	Conventional Approach
			
1	School Administration	Headmaster is actively involved in children's education.	Headmaster strictly supervises teachers and children.
		Headmaster actively cooperates with teachers to create good teaching environment.	
		Teachers often share their ideas to create good lessons.	Teachers rarely share their opinions.
		School creates various facilities for children's education, such as flower garden, a place for raising small animals, etc.	N/A
2	Learning Environment	Classrooms are usually decorated with a variety of children's works.	Classrooms are plain.
		Classroom arrangement is changed based on the purpose of lessons.	Classroom arrangement is always lecture-style.
		Children are engaged in various activities such as observation, field-trip, group discussion, etc.	Children listen to teachers.
		Children are actively engaged in "doing," "imaging," "thinking," and "finding."	Children's learning attitude is always passive.
		There is frequent interaction b/w children and teacher.	There is only one-way communication from teacher to childre.
3	Teaching Materials	Teaching materials are based on the teaching contents. Teachers create them by themselves.	There is no teaching materials or they are ready-made even if there are.
		Teaching materials are attractive and interesting for children.	There is no teaching materials or they lack attractiveness even if there are.
		Teaching materials have reality.	Teaching materials often lack reality.
		Teaching materials help children understand the contents.	It is not sure that teaching materials help children understand the contents.
4	Teacher's Attitude	Teachers create friendly relationships with children.	Teachers are always strict and scary.
		Teachers carefully observe individual child during the class.	Teachers do not pay much attention to individual child during the class.
		Teachers always encourage children to participate actively in the class.	Teachers require children only to answer to the questions.
		Teachers help children realize what they understood and what they did not understand.	Teachers announce children's rank among group by test score.
		Teachers create good lessons with children together.	Teachers follow only the instruction of textbooks.
5	Support and Understanding of Outside School	Support from parents is highly necessary.	N/A
		Support from community is highly necessary.	N/A

Q3: Does CCA require many activities and teaching/learning materials?

Many people tend to think that a teacher must prepare many activities (usually physical activities) in CCA lessons. This is not true. CCA is an approach that brings out the maximum capabilities in a child. If children's interests and expectations are carefully considered and if a lesson plan is well prepared, this lesson plan may be a CCA lesson. It is not necessarily important that lessons include physical activities or various teaching/learning materials. For instance, a teacher tells a story in the class and the children listen to it quietly. In this lesson, the teacher prepares no activities and no teaching/learning materials besides a story. This can also be a CCA lesson if the story is well prepared and considers children's interests and needs. On the other hand, a lesson including many physical activities and using many teaching/learning materials is not necessarily a CCA lesson. If these activities and materials are prepared without considering the children's level of understanding and interests, the lesson may make children confused. This is not a CCA lesson.

Generally speaking, CCA lessons use some appropriate activities and teaching/learning materials to help children learn. These activities and teaching/learning materials play an important role in the lessons. Therefore, when you make a CCA lesson plan, you have to think about what you will teach in a lesson, whether you need activities and teaching/learning materials, and what activities and teaching/learning materials can bring the highest effect for encouraging children's learning.

Q4: Is it possible to implement CCA lessons in poor rural areas?

Yes, it is. The CCA lessons can be conducted in any place and on any occasion if there is a teacher who fully understands the CCA concept. However, many teachers state that they cannot conduct CCA lessons because there are too few teachers and little or no budget to purchase materials for their schools. This belief is wrong. As mentioned in Question 3, CCA is not an approach requiring many materials. Nor is CCA an approach that is applicable only in particular conditions. Even though there is nothing in a school, CCA can still be practiced using a teacher's creative idea. For example, when a teacher teaches children the history of their village, the teacher starts by talking about the largest tree in the village: "You all know the big tree near Ko Mg Mg's house, don't you? That tree is the same age as our village. How many years ago do you think our village was established? Let's ask the tree about the age of our village." Then the teacher takes children to observe the tree and lets them measure its width. This lesson is truly a CCA lesson though it does not use any expensive materials. This lesson depends upon the creative ideas of the teacher.

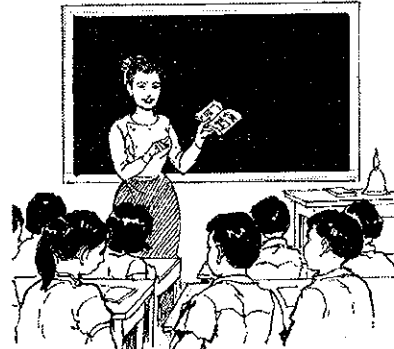
Another problem is that there are too few teachers in a school and there is no partition between classrooms. The teachers must take care of children of different ages at the same time. In this situation, you can practice the multi-grade teaching method. Multi-grade teaching is an effective teaching method when there are children of several different ages in one class. By using the multi-grade teaching method, teachers can deal with children effectively and can implement CCA lessons. However, multi-grade teaching requires special skills. Teachers who must take care of different aged children must gain these skills and techniques through some training courses. In the following, one example of multi-grade teaching practice is introduced:

All children, for example, from KG to G4 are engaged in the same topic together. At the beginning of the lesson, a teacher gives them one presentation by using picture-story telling, book-reading, and musical instruments. After the presentation, the children are given different tasks depending upon their grade. For children at KG, most simple and easy task such as expressing their ideas is prepared. For children at Grade 1, another task such as writing their opinions is prepared. For children at Grade 2, group discussion about the problems or issues in the presentation is prepared. For children at Grades 3 and 4, a task of finding some solutions by group discussion and presenting their ideas are prepared. Getting to know what other graders think and feel helps children understand each other mutually. This is also one of the most effective examples of CCA lesson in the case of the multi-grade teaching.

Q5: Is it possible to implement CCA lessons in a class with a large number of children?

Yes, it is. However, it is difficult to implement CCA lessons under this condition. Generally speaking, a class with a small number of children is better because the teacher can easily check each child's performance and level of understanding. On the other hand, a CCA lesson frequently fails in a class with many children because during some activities the large number of children well.

Therefore, teachers have to carefully select teaching methods and learning activities when they conduct CCA lessons in a crowded classroom. For example, group work is one of the effective methods. A teacher gives topics to each group and encourages children's discussion. During the discussion, the teacher observes the groups and gives suggestions and hints if needed. After finishing the discussion, group leaders present their ideas and opinions.



Q6: Can we use CCA in every lesson, such as Myanmar language, math and English?

Yes, we can. CCA is not limited by subject or field of study. CCA is more like a rule regarding how a teacher acts and behaves in class and how a teacher deals with children. If you carefully consider what children want to know and what children are interested in, and if you create a lesson plan with your own unique and creative ideas, this lesson plan may be an interesting lesson. This lesson plan may also be a CCA lesson when you implement it effectively in class.

Q7: Can we finish teaching all topics in the current textbooks when using CCA?

Most teachers are concerned about this issue. Teachers are usually forced to finish teaching all topics by the end of the academic year. As you know, CCA takes more time than the conventional way of teaching. Therefore, you cannot cover all topics as long as current textbooks that are based on the conventional teaching style are being used. Thus, it is highly necessary to review the current topics, select the most important ones, and reorganize the contents of textbooks.

Q8: Is CCA the same as “learning by doing”?

CCA is not the same as “learning by doing.” There are a number of teaching methods which can be used when holding a CCA lesson and “learning by doing” is just one of them. However, it is true that “learning by doing” is one of the most basic methods of CCA.

The person who first practiced CCA was John Dewey, an American educator. At the end of the 19th century, he established an experimental school at the University of Chicago. Since he believed that children could learn things better through experience, Dewey made children at his school do various things by themselves. For instance, they wove cloth from cotton and wool and lived in a cave to experience the ancient way of life.

The present-day CCA is rooted in Dewey's experiments, whose essence was “learning by doing.” Thus, “learning by doing” remains one basic method of CCA, though it is not equivalent to CCA.

Q9: What are the teacher's qualifications necessary for doing CCA?

In Myanmar, rote learning has long been a common practice. Therefore, most Myanmar teachers do not know how to practice CCA. To practice CCA successfully, teachers should fully understand the concept of CCA and know a range of key techniques which can be used. However, this is not easy because CCA is a very broad concept using numerous techniques. As a matter of fact, one hundred teachers would practice CCA in as many different ways. If you can use one CCA method, it does not mean that you can conduct the full range of CCA methods. Thus, it generally takes time for a beginner to fully understand the concept of CCA and become familiar with the methods. The only way to accomplish this is to practice it many times.

Although it takes a long time, to become a CCA practitioner does not require any special qualifications. The first qualification is that you enjoy giving lessons. If you like to give lessons and when you realize a change in children's facial expression during your class, you are standing at the bottom of the CCA ladder.

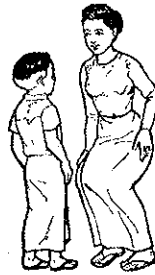
The second qualification is that you be concerned about children. What do they think about? What are they interested in? What do they want to know? If you try to understand children better, you are standing on the first step of the ladder. The third qualification is for you to be able to analyze how to make children interested in the topics to be taught. If you can do this, you have climbed up to the second step.

The fourth qualification is imagination and creativity. You have to try to create an interesting lesson using your imagination. After completing your lesson plan, review it again and again. Imagination and creativity are the keys to interesting lessons. The fifth qualification is the ability to act like an actor or actress. In the classroom, you should be aware of eye contact, tone of voice and rhythm, and gestures. You should be able to make various expressions like an actor or actress on stage. When you satisfy all the qualifications above, you have reached the fourth step of the ladder. The top is not so far from there.

Teacher's Various Attitude



Kindly talking to children



Carefully listening to children



Humorously explaining to children

Q10: How do we let parents know about CCA?

It is very important to teachers that parents understand what is being taught to children at school. Without parents' understanding and cooperation, education will not be successful. One way of letting parents know what children do at school is to set up an open-school day. On such a day, parents can visit the school and observe school activities. Another way is setting up a meeting with parents in which they discuss any issues concerned with the children. Such a meeting will help parents better understand their children's school performance. Still another way is for teachers to visit children's homes to observe their daily life. This is a very effective way to share information between parents and teachers. The important thing is to contact parents frequently and share as much information as possible with them.

Designing CCA Lessons

Planning is a base for implementation. Good plans make implementation better and easier. How much time did you spend on planning is related to how successful implementation is. CCA implementation is also the same. Applying CCA in your class starts from designing lesson plans. If you make a good lesson plan, your lesson will be more interesting, understandable and attractive to the children. Whether it is a good CCA lesson or not depends on lesson plans. To make a good lesson plan, the teacher has to know several key issues and steps for planning. In this Teacher's Guide, lesson plans are introduced, but the teacher must modify them with considering their own teaching environment to implement effective CCA. The following is the key information necessary for teachers to create a good lesson plan.

STEP 1: Let's review the learning objectives of the topic

First of all, look at the objectives of the topic you are going to teach. The objectives are a guideline as to why you teach this particular topic. All contents regarding the topic should be prepared to achieve the objectives. There are two kinds of objectives: general objectives and specific objectives. General objectives indicate the goal to achieve during the lessons on the topic. Specific objectives are the goal for each lesson. You should review these objectives carefully and understand the goal is in a particular topic and what kinds of information needs to be taught. Then, try to imagine the entire lesson in your head.

STEP 2: Let's think about related issues of the topic

Based on your image of the lesson, think about what issues will be related to the study of this topic. In this step, you can randomly write down your ideas. Any issues coming to your mind should be written. Think about what information you want to know if you are given a particular topic. For example, if the topic is "Our village," "What do you want to know through the study of this topic?" It may be "How many people are there in our village?" or "When was it established?" or "How many TV sets are in our village?" and so forth.

STEP 3: Let's select important issues to teach

The issues picked up at step 2 are carefully reviewed in consideration with the objectives. Then, some important issues are selected as teaching/learning issues. In this selecting step, you should make sure that these issues cover all the objectives. If the selected issues do not cover all the objectives, you should add more issues to supplement it.

STEP 4: Let's consider applicable and effective teaching methods

In this step, spend time to consider how to teach each issue selected in step 2. In CCA, this part is significantly important and is worth spending more time on "How do we teach so that children can easily understand?", "Do we need some activities to increase children's motivation?", "What activities can work well in teaching this issue?" You can take several methods and activities to teach the issues, such as group discussion, peer work, drawing pictures, presentation and so forth.

STEP 5: Let's create lesson structure

In this step, think about a particular lesson plan which will be conducted in the classroom. You can choose some issues selected at step 3 and arrange them within the particular timeframe, usually 30 minutes for KG, G1 and G2, and 35 minutes for G3 and G4. In this step, consider how many issues you can teach during one period and in what they should be taught in.

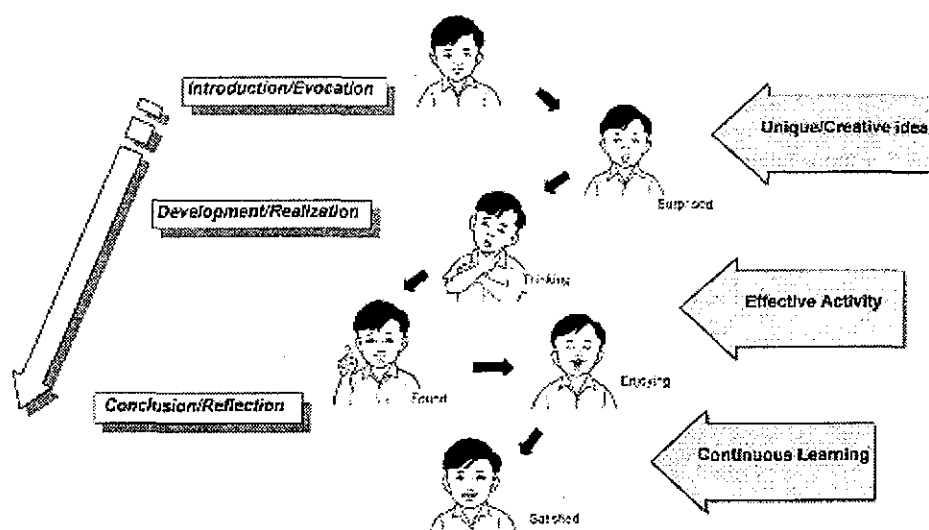
You can usually divide one lesson into three part; *introduction*, *body (or development)*, and *conclusion*. The first part, *introduction*, plays an important role to motivate children to study

a new topic. You should prepare this part well to stimulate children's motivation. For example, if you prepare something surprising, children's interests will peak and the whole lesson can be done smoothly.

The second part of *body (or development)* is the main part of the lesson. In this part, you can teach the important issues you want to give children. To promote children's understanding of the issues, it is better to plan some activities in the lesson. These activities aim to stimulate children's understanding. Therefore, don't do activities randomly. They need to be thought out carefully.

The last part, *conclusion*, is a summary. It is also used to link the current lesson with the next lesson. Specifically, you can review the issues with children, ask them their opinions about the issues, and preview the next issues to be taught.

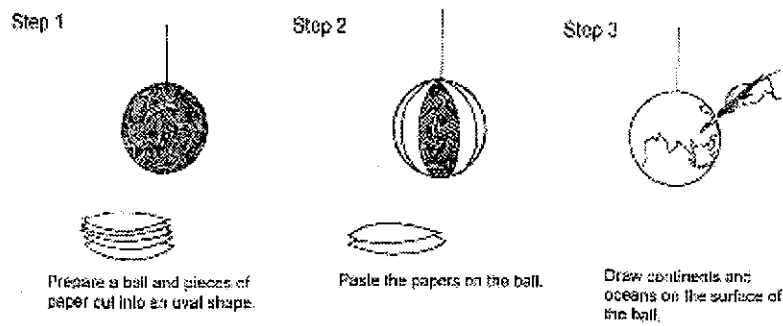
In ideal CCA lesson, children's facial expression will change within one lesson. At the beginning, children are still nervous. However, children's apprehension will be broken by your surprising introduction. Children are then relaxed and can concentrate. Activities can help keep children's motivation high. During the activities, you can observe children's happy expression in your classroom. At the end of the lesson, children will hopefully have a look of satisfaction on their faces.



STEP 6: Let's prepare teaching / learning materials

The next step is the preparation of teaching / learning materials. Based on steps 3 and 4, you already know what kinds of teaching / learning materials are needed. Based on this information, you can prepare them. Some of them will be bought and the others can be made by the teacher. Especially in rural areas, teachers should prepare them by themselves instead of purchasing them. You do not necessarily have to create sophisticated materials, but simple ones by using local materials around you.

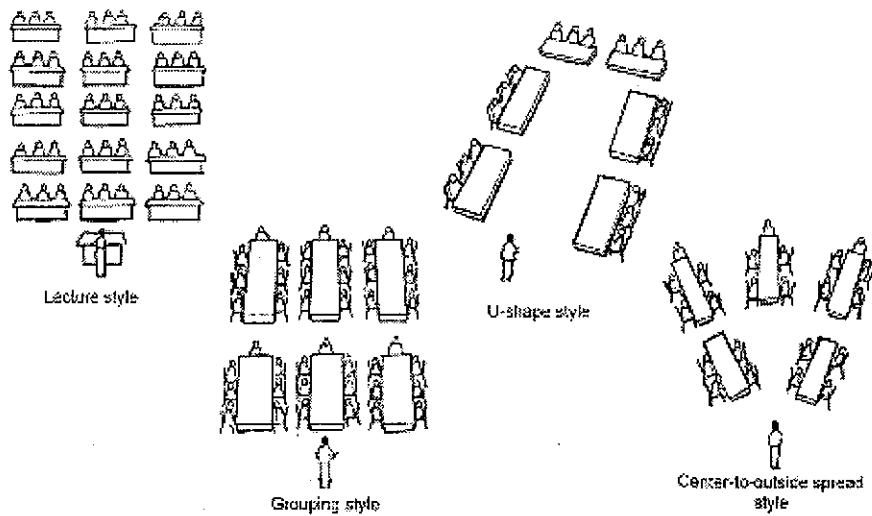
For example, when you need a globe, you do not necessarily have to spend a large amount of money. You can make it cheaply and easily by yourself. Please look at the illustration. Prepare a ball and several pieces of paper cut into an oval shape. Then paste the papers on the surface of the ball. After pasting, wait until it becomes dry. Finally draw some continents and oceans on the surface of the ball. It becomes a good globe.



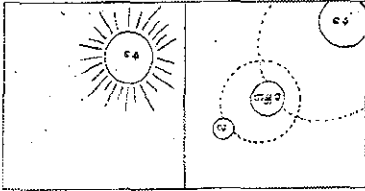
STEP 7: Let's think about effective classroom arrangement

The final step is to arrange the most appropriate and effective classroom setting. Each lesson usually prepares different activities. Each activity also requires different classroom arrangement to bring about children's best performance and the most effective lesson. Based on the learning activities you prepared, you can arrange the most effective classroom arrangement.

For example, there are many group activities in your lesson such as group discussion, group observation, group work and group presentation. Therefore, grouping the tables may be the best arrangement. When you show some picture stories or video in your lesson, the U-shape arrangement may be the best. If both activities, group work and showing videos, are used in one lesson, you can use the center-to-outside arrangement.



Comparison between Conventional and CCA lessons

Conventional Lesson	CCA Lesson
<p>Introduction</p> <p>There is no proper introduction in the lesson.</p>	<p>Introduction</p> <p>The lesson for today is the shape and size of the earth. First of all, please tell us anything about the earth.</p> <p><i>Ex. How many people live? Which country has the biggest population?</i></p> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin: 10px 0;"> <p>Need of good introduction-Attractive First, a teacher attracts children by using their prior knowledge and experience. Children also start to think from this discussion "What will we do in this lesson?"</p> </div>
<p>Body</p> <p>Teacher explains textbook.</p> <p><i>Ex. The orbits of the moon, the sun and the earth</i></p> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin: 10px 0;"> <p>The illustration in the textbook is incorrect. Children do not get right idea about the space.</p> </div> <div style="text-align: center; margin: 10px 0;">  </div> <p>Teacher lets children do the following activities:</p> <p><i>Ex. Draw the earth's orbit round the sun. Draw the moon's orbit round the earth. Draw the moon's and the earth's orbits round the sun</i></p>	<p>Body</p> <p>Teacher tells the following story to children (story telling about Columbus. He went to the west to reach India because he thought the earth was like a ball though most people did not believe at that time.)</p> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin: 10px 0;"> <p>Story telling-Attractive Children love stories so teacher can fascinate children's interest. Meanwhile the story is about the shape of the earth, it gives essential concept of it. It is useful way to make children imagine.</p> </div> <p>Teacher asks children: If you were at that time and believed that the earth was round, would you join this trip?</p> <p>Can you imagine how big the earth is? The circumference of the earth is 25,000 miles. In order to image how long it is, let me give one question.</p> <p>How long does it take to walk around the earth? (refer to Activity 3) You can choose one from three choices below. Suppose that we can walk for 10 hours per day and our walking speed is two and half mile per hour.</p> <ol style="list-style-type: none"> a) one -two months b) about three years c) about 10 years <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin: 10px 0;"> <p>Making children understand from their daily experience-Practical Make children to image the size of the earth from the way they daily practice (sense of distance from walking)</p> </div> <p>After listening to children's idea, teacher can tell the answer. Answer is b). This is how to calculate.</p> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin: 10px 0;"> <p>Integrated activity-Attractive Now, let's deal with science topic to use mathematics skill. It integrates science lesson more and gives children excitement.</p> </div> <p>If we walk 2.5 miles per hour and 10 hours per day, we can walk 25 miles per day. To walk around the Earth, we need $25,000/25 = 1,000$ days. So we take 1,000 days to walk around the Earth. A year has 365 days. Therefore, 1,000 days are about 3 years. There are other examples. In the case of using a bus. Bus is faster than walking. It can go about 50 miles per hour. So, if we go by bus, it will take 50 days. It will be much faster if we go by airplane. The plane can fly about 625 miles per hour. So, it will take 40 hours (about 2 days).</p> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin: 10px 0;"> <p>More example to enforce image-Easy to understand Teacher gives more examples to let children imagine easier.</p> </div>
<p>Conclusion</p> <p>Teacher lets children do the following activities:</p> <p><i>Ex. Draw the earth's orbit round the sun. Draw the moon's orbit round the earth. Draw the moon's and the earth's orbits round the sun.</i></p>	<p>Conclusion</p> <p>Let us try to enrich children's imagination about the Earth, especially for its size and shape. This lesson can be successful if children have images of size and shape of the Earth as well as knowing the actual circumference.</p>

It is not very effective way to evaluate. Children do not understand at all about the concept, they merely draw pictures coping textbook.

Assessment for CCA

What do we expect children through CCA?

First of all, the following two cases are introduced. One is the case of CCA class and another is the case of the conventional class. Which class is CCA and which class is the conventional class?

Case 1:

English, maths and mother-tongue lessons are taught through activity, play, experimentation and discovery. A girl at the kindergarten level takes her pet turtle and toys to school to show and tell her friends about them. Kids were encouraged to interact and ask questions. Worksheets (or assignments) were combined with activities, such as using rice to form letters. Teachers are not big on neatness. Under such a learning environment, she enjoys school very much. "She is a very confident girl and not afraid to speak to adults. She is relaxed about school and uninhibited about asking when she does not understand something," says her mother.

Case 2:

English, maths and mother-tongue are taught separately. Teacher stands in front of the class, giving instructions. There are plenty of worksheets, and lots of homework, especially spelling. Children are praised for keeping quiet and turning in neat work. Under this learning environment, a girl is not enthusiastic about school, and fear going if she doesn't finish her homework. "She was very outspoken before pre-school but she gradually toned down and became less curious and talkative," said her mother.

These two cases were conducted in Singapore to improve education for children. Some schools were designated as experimental school under the educational improvement project, and others were designated as control school. *Case 1* is the scenery of one of the experimental schools and *Case 2* is the scenery of the control school. As you know, *Case 1* is CCA class and *Case 2* is the conventional class (*"The Strait Times"*).

The base of CCA is children's interest and experiences. Through the lessons that are based on this CCA base, children become interested in learning and actively participate in classes. Children use their five senses at maximum and tackle with the issues in the classes. In this learning process, children can fully develop their thinking ability and creativity with deeper understanding of the issues. Unlike the conventional approach, CCA focuses on not only children's level of knowledge and understanding, but also their positive attitude and strong interest in learning. Therefore, CCA creates children who are active, curious, and positive towards learning and their life. This is significantly important for human being in the long run. We should think again whether a child who is not interested in learning and is less active in spite of much knowledge can become a good citizen. In this respect, CCA concerns about the foundation and the basis of education.

How do we assess children?

Besides level of knowledge, teachers must focus on children's interest and attitude towards classes. To do this, the teachers are required to use various ways of assessment, such as writing tests, questionnaires, essay reports, interviews, observations, etc. These ways of assessment can check different items achieved by children. For example, writing test can check children's level of knowledge, or *"how much did children understand?"* Questionnaire is good for checking children's interest or *"How do children devote themselves to something?"* Essay report is very useful for knowing children's attitude or *"How do children think about and feel about?"* Therefore, the teachers must use these different ways of assessment and assess children's achievement in the comprehensive manner. In addition, another important point is that teachers must recognize the real purpose of the assessment. Why do we assess children? All teachers must think about this question again and must have the common recognition of the assessment. Currently, the result of assessment is used for ranking children and comparing each other by score. As a result, children have become

afraid of and hated assessment tests. This may have discouraged them to learn more and to try new things. Instead of these traditional ideas, the assessment for CCA must encourage children and promote them to learn more. In CCA, the result of assessment must be used for feedback to children. In other words, children know what they accomplished and what they did not through the assessment. By recognizing their accomplishment clearly, children can find the right direction of their studying.

Moreover, all teachers must know the following point. The assessment is conducted both by children and teachers. In the traditional thought, the assessment has always been conducted by teachers and given children the result from teachers. This assessment is only one-way assessment: from teachers to children. But the assessment of CCA is conducted by the two parties. Teachers directly assess children's performance by using various different assessment methods (*the assessment from teacher to children*). At the same time, teachers also realize whether their teaching process was good by the result of assessment. If the children's level of accomplishment had been less than teacher's expectation, the teaching process might not have been effective nor appropriate. The teachers should revise their teaching process (*the assessment from children to teacher*).

What kinds of assessment can teachers use?

There are many different kinds of assessment methods. Teachers can use a variety of assessment methods, depending upon the purpose of assessment. Currently most teachers rely highly on writing test method. However, this method can cover only children's knowledge level, it cannot check children's attitude and interest. In the following, the necessary assessment methods for CCA are introduced, besides writing test:

● **Observation**

The observation method is one of the most important assessment methods for CCA. Because CCA pays much attention to improvement of children's attitude towards learning and to reinforcement of their interest in learning, this method is effective and appropriate to check it. However, teachers must establish the criteria prior to observation. The major points to check are the following:

1. *How have children's attitude and behavior changed?*
2. *How have children's interest in learning been strengthened?*
3. *How have children participated in lessons?*

In addition, the result of assessment done by the observation method must be given back to children immediately to help children recognize their learning situations.

● **Self-assessment and Peer-assessment**

Although observation is effective assessment method, a teacher has a limitation to observe each child in detail. To supplement teacher's observation, it is significantly useful to let children review their own performance by themselves and to let children evaluate their friend's performance each other. Practically, there are several ways for this assessment, self (or peer)-scoring, self (or peer)-describing, self (or peer)-evaluation sheet, checklist, and questionnaire. Note that it is the requisites for establishing a good relationship among classmates when the peer-assessment is used.

● **Interview method**

This method is also useful to know children's way of thinking and feeling. This is the assessment based on the result that teachers interview with children, sometimes including parents. Although it takes a lot of time, teachers can know the details of children's feeling and behavior through direct communication. However, this method highly requires good relationships between teachers and children to collect reliable information. Therefore, teachers make their best efforts to create good environment during interview.

General Studies – Note for Teachers

Objectives of General Studies

The objectives of General Studies are as follows:

Natural Science

1 To study and explore the nature of things in the environment in the natural Science particularly objectives of Natural Science in the primary level are;

- (1) To take interest in the natural process and develop the habit of studying and observing them,
- (2) To be aware of the advantage of natural resources and be able to exploit them for daily living, .
- (3) To learn to appreciate the environment and safe-guard it as well,
- (4) To be able to apply knowledge of personal hygiene and family heal procedures to daily activities, and
- (5) To be aware of the importance of science in development of production.

CIVICS

- (1) To have a good character and become polite, dutiful and good citizen,

Life Skills

- (1) To adapt themselves to their surroundings and to equip them with the necessary basic skills and good habits,
 - a. To provide appropriate knowledge, skills and information for the promotion of preventive health,
 - b. To live in conformity with the environment and to provide appropriate basic skills for life long process, and
 - c. To promote the awareness that the preventive health if more beneficial than curative health.

Strategies to be used

Points to be kept in mind in dealing with children of KC, G1 and G2:

They include:

- 1) to provide them with the plenty of rich experiences and learning in everyday life, mainly through various kinds of plays and games as well as through nature.
- 2) To nurture their minds through reading out loud and showing as

many picture books and tales as possible. Through such effort, children could get more interested in and get familiarized with things around them, and also they could enjoy expanding their imagination.

3) to create plenty of different kinds of audio-visual materials for them, so that the designated topic would be introduced in an interesting and in an impressive manner. In other words, during the children's development stages, it is of vital importance for them to be able to absorb things as much as possible in everyday life and through joining group activities. At the same time, it is important for them to be able to express freely what they had thought and imagined, and to feel the joy of expressing themselves, utilizing letters, pictures and body movement. Once something leaves deep impression on the child's mind, she/he will never forget it throughout her/his life. The memory of the deep impressions left on them are necessary at the foundation of any learning process. The children could acquire fine communication capacity and creative power as human beings through numerous trials and errors they themselves go through with their bodies, while engaging themselves in the plays, games and group activities.

Effective Method of Picture Story Telling:

A Picture Story Telling consists of normally around 10 to 15 pictures sheets of tales and stories. As each picture is shown one by one to children, the story is told. The Picture Story Telling technique in Japan has developed well and in Kindergartens in particular, it is widely used apart from reading books aloud for children.

The Picture Story Telling appeals to both children's visual and auditory capacity as the story is unfolded. Therefore it gives tremendous impact on KG, G1 and G2 children. Since this story-telling method with visuals appeals directly to the sensitivity of children, it is appropriate indeed for CCA and it allows two-way mutual communication for children and teachers and is proved to be one of the most effective learning media. While the television is an example allowing only one-way communication, such picture story telling based on the oral tradition will make the storyteller and the listener feel close to each other and will give them favorable stimulus.

There are numerous stories and tales found in Myanmar that are appropriate for making them into picture story telling.

Therefore the teachers should include them extensively in the lessons for KG children. For this purpose also, CCA activities should be promoted in close collaboration with the local community concerned. Even though the pictures are simple with limited colours, the teachers' effort to make them with their own hands and ideas itself will lead to making the class lesson effective. It is teachers' attitude that should be emphasized. The attitude is of making an endeavor as to ponder how best to introduce the attractive world of tales to children.

There is a well-known saying the sprit of a 3-year old child remains even to the age of 100 years. The sense of excitement and discovery which registers deep in a child's mind will continue to influence that person throughout his life. It is obvious then, that reading habits, which we are discussing today, should be well established at an early age when the foundation of all aspects of a child's growth are formulated.

In the Teacher's Guide, included is a sample lesson of the "multi-grade classroom teaching. New topics on health and safety are included in addition to the existing ones.

The Guide is designed to make children experience themselves as much as possible.

This Teacher's Guide (G1)

Section 1: Natural Science

Chapter 1: Living Things

- Topic 1: Animals That Can Be Found in Various Places
- Topic 2: Different Plants Present in Various Places
- Topic 3: Requirements of Living Things
- Topic 4: Caring of Living Things

Chapter 2 : Matters

- Topic 5: Study of Objects around One's Environment
—Name of Objects and Their Usefulness at Home and in the School Garden
- Topic 6: Observation of Objects around One's Environment —Color, Shape and Quality
- Topic 7: Making Comparison of Objects —Heavy and Light Objects
- Topic 8: Differentiating Objects in What They Are Out Of and Recycling the Used or Waste Materials

Chapter 3: Energy

- Topic 9: Heat Emitting Objects and Sources of Heat
- Topic 10: Voice and Types of Sound
- Topic 11: Light Emitting Objects and Sources of Light
- Topic 12: Magnet
- Topic 13: Advantages and Dangers of Electrical Appliances

Chapter 4: Earth and Space

- Topic 14: Observation of Weather Condition
- Topic 15: Observing Characteristics of Water Based on Its Source
- Topic 16: Observing the Color and Texture of Soil in Different Locations

Section 2: Morals and Civics

Chapter 5

- Topic 17: Extraordinary Country
- Topic 18: Politeness at School
- Topic 19: Sports, the Collective Activity
- Topic 20: Our Duty
- Topic 21: A Well Bred Son
- Topic 22: The Loving Kindness of Parents
- Topic 23: Preserve the Culture

Section 3: Life Skills

Chapter 6

- Topic 24: Personal Hygiene —(a) Healthy Practice
- Topic 25: Personal Hygiene —(b) Washing Hands
- Topic 26: Food and Eating
- Topic 27: Dress for Health and Convenience
- Topic 28: Communicating to Other People
- Topic 29: Malaria Disease
- Topic 30: Dengue Fever
- Topic 31: *Sample Lesson of Multi-grade Teaching*
Preservation of Environment —Putting Away the Garbage Systematically

Textbook (G1)

Section 1: Natural Science

Part 1: Living Things

- Chap. 1 Living things found in our environment
 - (a) Making to remember the living things
 - (b) Making to remember the plants
- Chap. 2 Requirements of living things
- Chap. 3 Relationship between living things and their environment
 - (a) livestock animals (b) animals and their food

Part 2: Matters

- Chap.4 Observation of the objects around one's environment (a) naming (b) telling the colors (c) telling the shapes of things (d) telling the quality (e) differentiating the objects in relation with type
- Chap.5 Making comparison of objects
- Chap.6 Discrimination of objects in relation with type

Part 3: Energy

- Chap.7 Description of heat emerging objects
- Chap.8 Differentiation of the types of sound by listening
- Chap.9 Light emerging objects
- Chap.10 Magnet and electricity
 - (a) different kinds of magnets
 - (b) advantages and hazards of electrical appliances

Part 4: Earth and Space

- Chap.11 Observation of the weather condition
- Chap.12 Observation of the significance of water according to its source
- Dhap.13 Observation of the color and texture of soil in relation to the region
- Chap.14 Observation of the sun, the moon and stars

Section 2: Morals and Civics

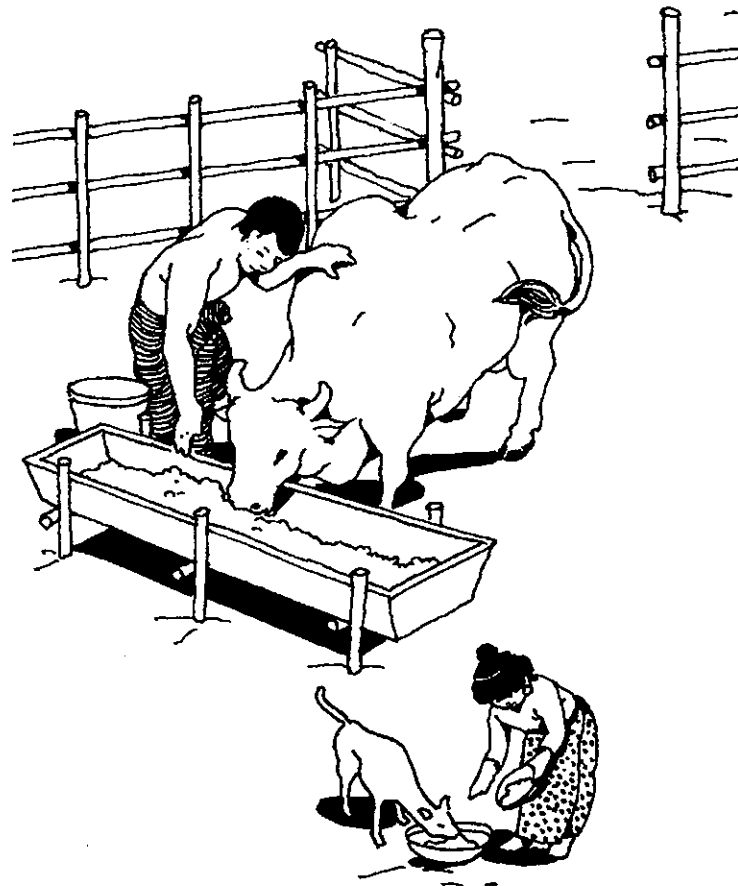
- Chap.15 Mingalar poems No.3, No.4
- Chap.14 National spirit and patriotism
 - (a) significant country
 - (b) We Myanmar
- Chap.17 Morals
 - (a) Sports (b) Duties of friend
- Chap.18 Culture
 - (a) Preserve the culture
 - (b) Practice that everyone has to do
- Chap.19 Duty
 - (a) Everyone has a duty each (b) Our duty
- Chap.20 Good cultural practices —Politeness at School
- Chap.21 Stories (a) The one who knows mother's gratitude (b) Two friends (c) Evil

Section 3: Life Skills

- Chap.22 Personal Hygiene
- Chap.23 Be healthy, Be free from diseases
- Chap.24 Wearing cheap and be healthy
- Chap.25 Dealing courteously and cordially
- Chap.26 Learn the art of handicraft

SECTION 1

Natural Science



Topic 1: Animals That Can Be Found in Different Places

Key Concept	Be able to know discriminately that animals live in different places
Learning Objectives	
General Objectives	Be able to describe the animals found in different places
Specific Objectives	Children are able to (1) to describe any animals that can be found in different places (2) to describe at least three (3) animals that can be found in the air (3) to describe at least three (3) animals that can be found on land (4) to describe at least three (3) animals that can be found in water (5) to describe at least three (3) animals that can be found both in the water and on the land
Activities Involved	<ul style="list-style-type: none">- Studying the pictures- Playing- Cut and paste- Drawing
Teaching/Learning Materials	<ul style="list-style-type: none">- Picture cards of animals.- Papers from old calendars.- Glue packets.
Teaching Periods	5 periods (150 minutes)

Before Getting Started

Background Information for Teachers	In studying the animals around one's environment students need to study many facts in relation with the animals. However, there will be difficulty to study many facts at the same time and simultaneously. Therefore, in this lesson it is necessary to study by concentrating on the different places where animals can be found. <i>Animals can be found in different places depending on the species.</i> In this lesson, it is to learn in general that they can be found on the land in the water and in both places. As there are (5) teaching periods, it can create the opportunities for the children to learn happily. Many basic science principles can be gained from studying the environment. Therefore having children to study the environment will be more effective than the activities described now.
--	---

Lesson Planner

	Period One	Period Two	Period Three	Period Four	Period Five
Specific Objectives	Be able to describe the animals that can be found in different places.	Be able to describe at least (3) animals that can be found on land.	Be able to describe at least (3) animals that can be found in the air.	Be able to describe at least (3) animals that can be found in the water.	Be able to describe at least (3) animals that can be found both in water and on land.
Introduction (Evocation)	Asking questions	Let the students study the pictures	Asking the name of animals that can fly in the air.	Asking the name of animals that can be found in water.	Explaining to do activities.
Activities	Asking questions and answering	Studying the picture of animals and place differently according to similarity in type.	Playing chicken flies, bird flies.	Drawing	Cut and paste
Assessment	If the children understand or not according to the response of children on questions.	If they can tell the name of pictures or not. If they can tell the name of (3) animals found on land or not.	If they are able to differentiate the animals that can fly in the air or not. If they can tell at least (3) animals that can be found in the air or not.	If they can tell at least the name of (3) animals that can be found in water or not.	If they can tell at least (3) animals that can be found both in the water and on the land.

Teaching/Learning Procedure

Period One

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
Introduction Ask each of the following questions. - Where do you go back when the school is over? - Where are the houses built? - on the ground - in the ground - in the air - under the water - on the water	30 min.		Asking in order to get the answer 'home'. If it is the region where long foot houses are built on water it should explain that the feet of the houses are embedded in the

<p>- Why don't you live in the air? - Why don't you live in the water? When the children have answered explain that, man lives on land so that man can be found only on land. Ask, describe the animals that can be found on land like man and the animals that can be found in the air in water and both in the water and on the land. Write on the blackboard.</p>			<p>ground. Man lives only on the land. It is only to bring out the child's original knowledge so it is to accept what the child answers. The children do not have to answer many names.</p>
---	--	--	---

Period Two

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
<p>Studying the pictures Give children each picture card and let them think the names. Write '<i>land, water, air, land + water</i>' on each paper and stick separately on the walls of classroom. Then, let the children think where the animals in their hands can be found. Let them tell among one another. When the specified time is over tell the children to go and stand at respective places according to their pictures. Ask children who are standing on each place to tell the name of their pictures for all to hear. Let the remaining children listen. Ask them to tell the animals that can be found on land.</p>	<p>30 min.</p>	<p>Picture cards of animals</p>	<p>It needs to be the pictures of different animals. It is necessary to specify time. The pictures must be the pictures of animals that can be found on land. (It is to include one animal each for other places) If they are in the wrong places, the teacher has to ask children's views and should explain. It is to concentrate and think the names of animals that can be found on land.</p>

Period Three

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
----------------------------	------------------------	-------------------------------------	-----------------------------

<p>Playing Ask, do you know the animals that can fly in the air? Tell children to put the two hands on the table. When the teacher shouts the name of an animal and if that animal can fly children have to raise the two hands above. (For example, the crow flies) Explain, if the animal cannot fly in the air they have to keep their hands in original position. (For example, the chicken flies) Let all children participate and play together with the teacher. Then let them play among one another in groups. After playing, let them tell the names of animals that can be found in the air.</p>	30 min.		It is to concentrate and think the names of animals that can be found in the air.
---	---------	--	---

Period Four

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
<p>Drawing Distribute the picture of animals to groups. Let them exchange among one another and see. Let them draw in their books the pictures of animals that can be found in the air, land, water and on land and water as they like. After drawing, let them tell the names of animals found in water out of the pictures they have drawn.</p>	30 min.	Picture cards of various animals	<p>Teacher has to give help to contain animals found in water in drawing.</p> <p>It is to concentrate and think the names of animals that can be found in water.</p>

Period Five

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
<p>Cut and paste Mix all the pictures that children have collected and brought and distribute each group equally. Give each group each paper from old calendar and ask them to stick the same type pictures separately. Teacher has to help. Put group names on the papers and stick them on the wall.</p>	30 min.	Glue packet, papers from old calendars.	It must have given instructions already to collect and bring the picture of animals from home as many as they could before the days of this period.

Let them study if the pictures contain the animals that can be found both in the water and on land. Ask them to tell the names of animals that can be found in both places.			
---	--	--	--

Assessment

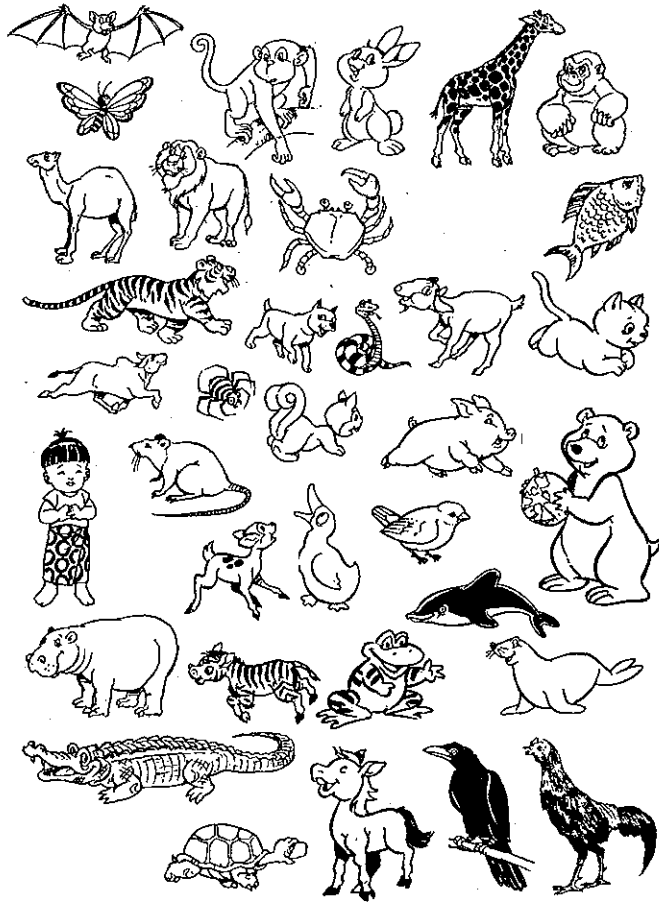
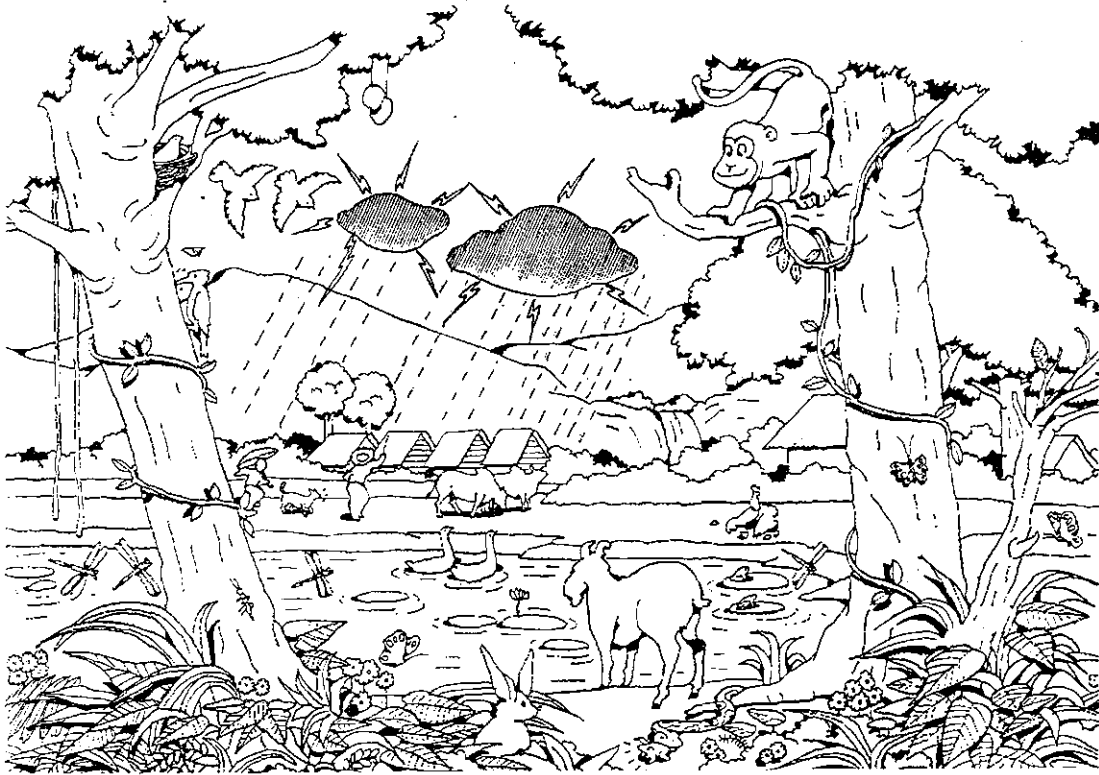
1. Tell the name of animals found in different places.
2. Describe the (3) animals that can be found on land.
3. Describe the (3) animals that can be found in the air.
4. Describe the (3) animals that can be found in the water.
5. Describe the (3) animals that can be found in water and on land.

Reference

Living creatures can be found in different places. The animal pictures are attached to be able to use in having children to learn the places where different animals out of the living creatures can be found. Besides these pictures, teachers themselves can create and bring out other pictures. In using the pictures, various ways and means can be used according to the teacher's intelligence.

- For example
- pointing on the picture and ask/have them tell
 - having to select the matched picture
 - having to draw
 - having to color
 - *having to cut and paste.*

Animals that can be found in different places



Topic 2: Different Plants Present in Various Places

Key Concept	Knowing that plants grow in different places
Learning Objectives	
General Objectives	Be able to study the places where plants grow in one's environment
Specific Objectives	Children are able (1) to tell the names by studying the different plants in one's environment. (2) to tell the different places where plants grow in one's environment. (3) to match correctly the name of plants and the places where they grow.
Activities Involved	<ul style="list-style-type: none">- Observation around the school environment- Drawing pictures- Differentiating by seeing the picture- Playing- Matching
Teaching/Learning Materials	<ul style="list-style-type: none">- Fruits, leaves, flowers available from the environment- Picture of plants that grow in water.
Teaching Periods	4 periods (120 minutes)

Before Getting Started

Background Information for Teachers	<p>As we are used to seeing the plants in our environment we never notice them exceptionally.</p> <p>In studying the different places where plants grow, it is to teach children in general according to their age such as on the land, in the water and on the tree. Since plants grow in different appropriate places, in studying them, it has been found that some plants grow, on top of mountains where other plants cannot grow, on the seabeds, on the stones and on rock mass. This lesson makes students to study the plants around their environment to recognize practically the basic principles of science. It is not to let children learn by heart the many names of plants. Teachers should take heed that children will remember more with happiness if they are asked to study and bring out the names of plants from environment without being told by the teacher.</p>
--	---

Lesson Planner

	<u>Period One</u>	<u>Period Two</u>	<u>Period Three & Four</u>
Specific Objectives	Be able to tell the names by studying the different plants around one's environment	Be able to tell the places where different plants grow in the environment	Be able to match and describe the name of plants and the places where they grow
Introduction (Evocation)	Asking names and asking to predict the places by showing fruits, leaves and flowers	Asking questions	Asking questions
Development (Reflection)	Going to study the plants in the school environs Drawing	Asking groups to describe the places grown by showing realia and pictures On land, in water, on trees Playing	Asking to match correctly the name of plants written on the blackboard with the places grown. Let them assess among one another. Let them copy in the book. Growing plants practically
Conclusion (Realization)	Asking how much they know the names of plants in the environment. To assess if they notice the places grown	Studying if they cooperate group-wise. Studying if they are able to describe the places grown	Studying if they can match correctly the name of plants with the places grown

Teaching/Learning Procedure

Period One

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
Teacher shows some fruits, leaves and flowers available in the region and asks the names. Ask them to predict where these plants grow.	5 min.	Fruits, leaves and flowers of the region	It should contain the plants grow in water and on the trees (for example, water convolvulus, water hyacinth and orchid) If not available pictures can be used.
That it is to study around the school environment teacher has to tell students to study and note	10 min.		

down the plants in the environment and the places where they grow. Then specify the place to study in groups. Tell the rules and regulations that want them to follow. Tell that they can ask the name of plant they want to know.			
After studying, ask children the following questions. - What plants did you see? - In what places did you see?	5 min.		
Drawing Let them draw the picture as they like on what they have seen and let them write the name of pictures as they like. Teacher has to help in writing the name of some pictures.	10 min.		It is suggested to put the pictures on the wall of each classroom to show to others. By looking at others pictures of plants, children can expand their vision.

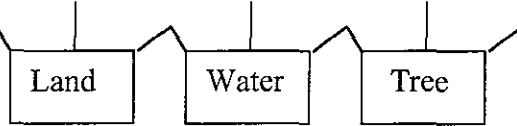
Period Two

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
By showing the plant, flower or some pictures ask them to tell the places grown. - In what places did you see the plants in the school environment grow.	5 min.		According to the children's study it may not contain all the (3) places.
Ask them where do (water hyacinth, lotus, nipa palm, orchid, water convolvulus) plants grow? Distribute realia and pictures to groups. Ask them to differentiate according to the places grown. For example - plants grow on land - plants grow in water - plants grow on the trees Ask every group to tell all to hear the name of (3) plants for each place.	10 min.	Realia, picture charts	To notice the (3) places where plants grow. The pictures containing in Myanmar textbook of KG and Grade one can be used.
Playing Draw two lines longitudinally on the ground. Specify water, land and tree.	10 min.	Extensive ground	Playing to remember more the different places where plants grow.

<p>Water</p> <hr/> <p>Land</p> <hr/> <p>Tree</p>			
<p>Tell all children to stand in a row only on one place. Instruct children to jump to change the place if the teacher calls water, land and tree. Let all children to participate in playing.</p>			

Period Three

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
<p>Matching Ask them to tell the various names of plants as they remember. Teacher asks one from each group to tell alternately and all to listen.</p>	10 min.	blackboard, chalk	
<p>Write whatever the children say on the blackboard. Motivate to include the name of trees that grow in three places. When a considerable number of names are collected, write the name of the three places beside them. For example -</p> <div style="display: flex; flex-direction: column; align-items: center; margin-left: 40px;"> <div style="display: flex; align-items: center; margin-bottom: 10px;"> - <div style="border: 1px solid black; padding: 5px 15px;">Land</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> - <div style="border: 1px solid black; padding: 5px 15px;">Water</div> </div> <div style="display: flex; align-items: center;"> - <div style="border: 1px solid black; padding: 5px 15px;">Tree</div> </div> </div> <p>Then let them connect and match the name of tree with the place grown by drawing a line. One person from each group has to come out alternately. Let them assess among one another.</p>	15 min		
When all are finished, tell them to copy	5 min		

<p>in their books as follows.</p>  <p>Tell that they can copy the name of (3) plants for each place from the blackboard. Teacher has to help if necessary.</p>			
---	--	--	--

Period Four

Learning Activities	Duration (Min.)	Teaching/ Learning Materials	Points to be noticed
<p>Growing trees practically (a) Ask the following questions. - Where does water convolvulus grow? - Can it grow on land? - Where does roselle plant grow? - Can it grow in water? - Is it possible to grow the plant, which grows on trees in the water and on land (Bulbophyllum auricomum / orchid)? To let them only to predict.</p>	5 min		
<p>(b) Give water convolvulus stems and Roselle stems to groups. Take children to the place where there is only land and to the place where there is land with a little water. Let them grow the two plants in the two places.</p>	20 min		
<p>(c) Upon reaching the classroom teacher has to explain that they will have to study daily if the plants they grow continue to thrive and they will have to wait and see if their predictions are true.</p>	5 min		

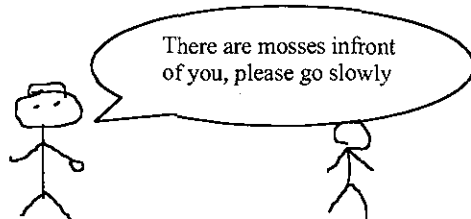
Assessment

- Describe the places found in the environment where trees grow.
- Which plant do you like to grow, which place do you like to grow?

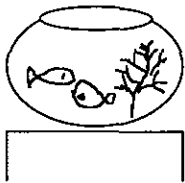
References



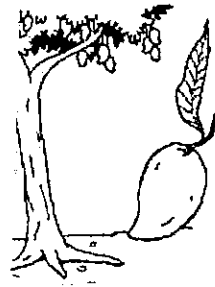
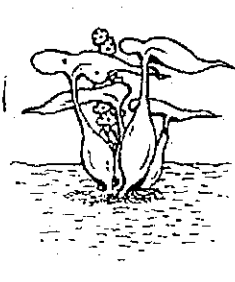
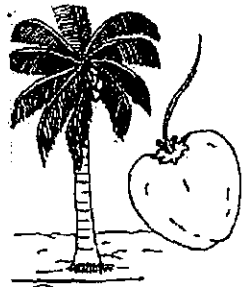
Mushrooms are one of the plant species. Some grows on land and some grows on trees and logs. Fungus that grows on bread is also plants.



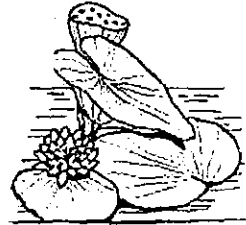
Mosses are also included in the plant species. They grow on wet places. Some mosses grow collectively as tiny plants inside the lakes. These tiny moss plants do not decay and pile up in layers to form fertilizer for the plants to grow in future.



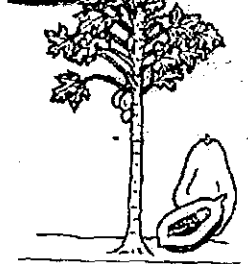
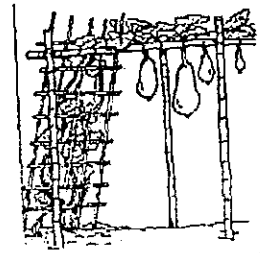
Weeds are kind of plants, which thrive in water. Some are used as ornament in the fish bowl. The stated facts are described by referring the facts of the book, the plants, of knowledge treasure trove. Teachers can study again the knowledge treasure trove books in schools.



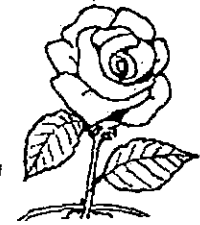
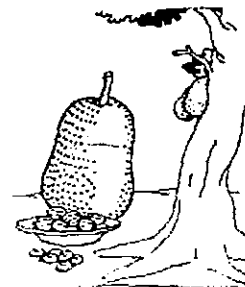
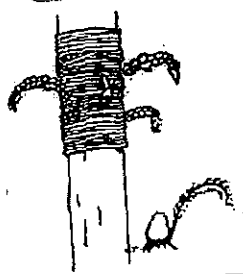
66



67



သစ်ပင်



ဒေရာ က မျိုး မျိုး တွင် ပေါက် ကျက် သော သစ် ပင် များ