



USAID
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Republic of Kenya



LOW COST TEACHING AND LEARNING MATERIALS



TRAINERS ' MANUAL

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TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Background

Session 1 (90 minutes)

Workshop Preliminaries

Introduction to EMACK

Background to Current Project

Description of the Training Programme

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Display of Low Cost Teaching and Learning Materials▪ Prepared Flip Charts 1.1 - 1.5▪ Blank Flip Charts▪ Flip Chart Stand▪ LCD▪ Computer and necessary accessories▪ Projector Screen▪ Papers and pens for teachers▪ Programme for Training Sessions▪ Masking Tape |

SESSION 1

Background

(90 minutes)

| | Resources |
|--|--------------------------------|
| <p>FACILITATOR INPUT Welcome the teachers to the Workshop and Session</p> <p>Introduce the session: Share with teachers the objectives for this session using prepared Flip Chart 1.1</p> <p style="text-align: center;"><i>Prepared Flip Chart 1.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;"><u>Objectives of Session 1</u></p> <p>By the end of this session you will have:</p> <ul style="list-style-type: none"> ▪ Awareness of goals of EMACK ▪ Awareness of aims of EMACK Teacher Education Programme ▪ Understanding of your involvement and commitment in Teacher Education Programme </div> | <p>Prepared Flip Chart 1.1</p> |
| <p>FACILITATOR INPUT Invite FACILITATOR to Welcome Teachers to Workshop, discuss Expectations, Norms, Responsibilities and Programme of Activities</p> | |
| <p>FACILITATOR INPUT Guide teacher to identify their expectation of the workshop. These are listed on the Prepared Flip Chart 1.2 by the Facilitator</p> <p style="text-align: center;"><i>Prepared Flip Chart 1.2</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;"><u>Expectations of the Workshop</u></p> <p>Teachers expect the following from the Workshop:</p> <ol style="list-style-type: none"> 1. 2. 3. 4. 5. </div> | |

| <p>FACILITATOR INPUT Guide the teachers to identify the norms of the workshop. These also are listed on Prepared Flip Chart 1.3 by the Facilitator.</p> <p style="text-align: center;"><i>Prepared Flip Chart 1.3</i> <u>Norms of the Workshop</u></p> <div style="border: 1px solid black; padding: 5px;"> <p>Teachers agree to the following norms:</p> <ul style="list-style-type: none"> ▪ ▪ ▪ ▪ </div> <p>Guide Teachers to identify responsibilities for Welfare, Timekeeper, etc. using Prepared Flip Chart 1.4</p> <p style="text-align: center;"><i>Prepared Flip Chart 1.4</i> <u>Responsibilities of Selected Participants</u></p> <div style="border: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 70%;">Responsibility</th> <th style="text-align: left;">Name</th> </tr> </thead> <tbody> <tr> <td>▪ Welfare</td> <td></td> </tr> <tr> <td>▪ Timekeeper</td> <td></td> </tr> <tr> <td>▪</td> <td></td> </tr> <tr> <td>▪</td> <td></td> </tr> </tbody> </table> </div> <p>Review the Workshop Programme with the Teachers. Facilitator guides teachers in revising/ accepting the Workshop Programme.</p> <p>FACILITATOR INPUT Introduce the Education Specialist to make the presentation on EMACK</p> <p>EMACK INPUT Make the presentation on EMACK background, goals and programmes</p> <p>FACILITATOR INPUT Introduce the EMACK officer to make the presentation on EMACK Teacher Education Project on Low Cost Materials</p> | Responsibility | Name | ▪ Welfare | | ▪ Timekeeper | | ▪ | | ▪ | | <p style="text-align: center;">Prepared Flip Chart 1.3</p> <p style="text-align: center;">Prepared Flip Chart 1.4</p> <p style="text-align: center;">Workshop Daily Programme of Activities</p> <p style="text-align: center;">Computer , LCD and Power Point Presentation on Background of EMACK</p> |
|--|-----------------------|-------------|-----------|--|--------------|--|---|--|---|--|---|
| Responsibility | Name | | | | | | | | | | |
| ▪ Welfare | | | | | | | | | | | |
| ▪ Timekeeper | | | | | | | | | | | |
| ▪ | | | | | | | | | | | |
| ▪ | | | | | | | | | | | |

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Children's Development and Learning Styles, Part 1 Session 2 (120 minutes)

Principles of Child Development Children Development and Competencies

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Teachers Manual Unit 1▪ Display of Low Cost Teaching and Learning Materials▪ Prepared Flip Charts 2.1 - 2.5, Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape |

SESSION 2

Children's Development and Learning Styles, Part 1

(120 minutes)

| | Resources |
|---|--|
| <p>FACILITATOR INPUT (5 Minutes) Welcome the teachers to the Session</p> <p>Introduce the session: Share with teachers the objectives for this session using prepared Flip Chart 2.1</p> <p style="text-align: center;"><i>Prepared Flip Chart 2.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">CHILDREN'S DEVELOPMENT AND LEARNING STYLES, PARTS 1 AND 2 <u>Objectives of Sessions 2 , 3 and 4</u></p> <p>By the end of these sessions you will have:</p> <ol style="list-style-type: none"> 1. Increased awareness of principles of development 2. Greater awareness of cognitive, affective and psychomotor development of children 3-8 years old 3. Increased awareness of children's multiple intelligences 4. More awareness of learning styles 5. Greater awareness of importance of multiple intelligences and learning styles in teaching 6. Enhanced awareness of developmentally appropriate activities for children 3-8 years old </div> <p>FACILITATOR INPUT Indicate that they want to explore children's development and some ideas by researchers and child psychologists.</p> <p>FACILITATOR INPUT (15 Minutes) Introduce the ideas of Principles of Development.</p> <p>Display Prepared Flip Chart 2.2.</p> | <p style="text-align: center;">Prepared Flip Chart 2.1</p> |

| <i>Prepared Flip Chart 2.2</i> | | Prepared Flip Chart 2.2 |
|--|--|----------------------------|
| PRINCIPLES OF DEVELOPMENT | | |
| What do we mean by “Principles”? | | |
| Who gave us Principles of Development? | | |
| Examples of Principles of Development? | | |
| Why are they important? | | |
| <p>FACILITATOR INPUT Have Teachers to talk about “Principles of Development” and what do they understand by the term “Principles”? Have the Teachers give other words, such as “guides” , “opinions”</p> | | |
| <p>TEACHER INPUT Share their ideas of what they think “Principles” are.</p> <p>Facilitator records their ideas on Flip Chart 2.2,</p> | | |
| <p>FACILITATOR INPUT Point to the “Who” question on the Flip Chart. Asks the teachers if they have ever heard of Piaget, Erikson, Maslow, Vygotsky and Bruner in their training. Explain that they were psychologists that studied children and developed principles about how children develop and learn.</p> <p>Asks teachers what they know about these psychologists and what they learned about children.</p> | | |
| <p>TEACHER INPUT Teachers give their ideas of who these people were and what they believed.</p> | | |

FACILITATOR INPUT

Appreciate the teachers' knowledge and comments. List their ideas of what Piaget, Piaget, Erikson, Maslow, Vygotsky and Bruner believed in the section of "Examples of Principles". List only major views not all details.

Add to Teachers' list information about views of psychologists they did not know, using Teacher Manual Unit 1 as one of your sources.

Point to "Importance" question on Flip Chart and ask Teachers to indicate why the Principles of Development are important to them.

TEACHER INPUT

Teachers give their ideas of how these ideas guide them in their teaching of children.

FACILITATOR INPUT (15 Minutes)

Appreciate the teachers' knowledge and participation.

Show Teachers Prepared Flip Chart 2.3.

Prepared Flip Chart 2.3

PRINCIPLES OF CHILDREN DEVELOPMENT

- **Children learn best when their physical needs are met and they feel safe and secure.**
- **Children construct knowledge.**
- **Children learn through social interaction with other adults and other children.**
- **Children learn through play.**
- **Children's interests and their "need to know" motivate learning.**
- **Children's development and learning varies from one child to another.**

Read each principle and asks Teachers to explain what it means and to provide examples from the children in their own classrooms.

TEACHER INPUT

Discuss their understanding of each principle with examples from their own classroom experience.

Prepared
Flip Chart 2.3

FACILITATOR INPUT

Appreciate the teachers' knowledge.

Indicate that now they are going to explore children's development more fully through an activity.

FACILITATOR INPUT (10 Minutes)

Show Flip Chart 2.4

Prepared Flip Chart 2.4

| AREAS OF CHILDREN'S DEVELOPMENT | | |
|---------------------------------|------------------|-------------|
| Cognitive | Social Emotional | Psychomotor |
| | | |

Prepared
Flip Chart 2.4

Encourage Teachers to also discuss what is included in each area and to give examples.

TEACHER INPUT

Teachers are guided to discuss the areas of development:

- Cognitive, including thinking, memory and language
- Social Emotional, including social, emotional, moral and spiritual (Also known as Affective area)
- Psychomotor, including growth, movements and manipulation using large and small muscles

FACILITATOR INPUT

List their ideas on the chart. If there are errors, list them and put an * next to the comment.

Discuss the items marked with an * and correct any confusion or misinformation.

Tell them that now they will apply this knowledge of children in an activity.

ACTIVITY 1

FACILITATOR INPUT (10 Minutes)

Indicate that they will now have a group activity to explore the behaviour and capabilities included in each of these major areas of development?

Show the Teachers Flip Chart 2.5. Indicates that there will be three groups. Each group will list in bullet form as many competencies, skills and characteristics as they can for the children of the ages they are given.

Prepared Flip Chart 2.5

| CHARACTERISTICS & ABILITIES OF CHILDREN | | |
|---|----------------------|-------------|
| Cognitive | Social Emotional | Psychomotor |
| | | |
| GROUPS 1 and 2 | 3-4 YEAR OLDS | |
| GROUPS 3 and 4 | 5-6 YEAR OLDS | |
| GROUPS 5 and 6 | 7-8 YEAR OLDS | |

Prepared Flip Chart 2.5

Have teachers count off 1, 2, 3, 4, 5, 6, 1, 2, 3, 4, 5, 6, etc. until all have been given a number. (*Ideally every group should have about 5-7 persons. More than 9 in a group is less effective*)

Explain that group assignments that are listed on the Flip Chart.

Inform the groups that they have 15 minutes only for the activity, and each group will need some one who will write the information within that time and a chairperson who will read the groups work.

Give blank flip charts and markers to each group.

TEACHER INPUT (20 Minutes)

Teachers do group work as assigned and report back to make presentation of their group's work.

FACILITATOR AND TEACHER INPUT (40 Minutes)

Have each group leader present the group's work on children's characteristics and abilities

Encourage comments by Teachers and others to clarify/ correct any misinformation.

CONCLUSION (5 Minutes)

FACILITATOR INPUT

Review the Objectives For Session 2, 3, and 4 on Flip Chart 2.1. Asks the teachers which ones have been met .

Prepared Flip Chart 2.1

CHILDREN'S DEVELOPMENT AND LEARNING STYLES, PARTS 1 AND 2
Objectives of Sessions 2 , 3 and 4

By the end of these sessions you will have:

1. Increased awareness of principles of development
2. Greater awareness of cognitive, affective and psychomotor development of children 3-8 years old
3. Increased awareness of children's multiple intelligences
4. More awareness of learning styles
5. Greater awareness of importance of multiple intelligences and learning styles in teaching
6. Enhanced awareness of developmentally appropriate activities for children 3-8 years old

TEACHER INPUT

Teachers should indicate the first two objectives have been met.

FACILITATOR INPUT

Indicate that the others will be met in the next session and in the evening assignment.

Thank the teachers for the good work and conclude the session.

Blank Flip Chart Paper and Markers

Completed Flip Charts for Groups 1-6
Masking Tape

Prepared Flip Chart 2.1

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Children's Development and Learning Styles, Part 2, Session 3 (120 minutes)

Multiple Intelligences

Learning Styles

**Developmentally Appropriate Activities for Children 3-8
years**

| | Resources |
|--|---|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manual▪ Teacher Manual, Unit 1▪ Display of Low Cost Teaching and Learning Materials▪ Prepared Flip Charts 2.1 and 3.1 - 3.5▪ Blank Flip Charts▪ Multiple Intelligences Handout▪ Learning Styles Handout▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape |

SESSION 3

Children's Development and Learning Styles, Part 2

(120 minutes)

| | Resources |
|---|---|
| <p>FACILITATOR INPUT (2 Minutes) Welcome the teachers to the Session</p> <p>Introduce the session:</p> <p>Show Flip Chart 2.1 from Session 2. and indicate that in this session objectives 3-5 will be met and 6 will be met partially.</p> <p style="text-align: center;"><i>Prepared Flip Chart 2.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">CHILDREN'S DEVELOPMENT AND LEARNING STYLES, PARTS 1 AND 2 <u>Objectives of Sessions 2 , 3 and 4</u></p> <p>By the end of these sessions you will have:</p> <ol style="list-style-type: none"> 1. Increased awareness of principles of development 2. Greater awareness of cognitive, affective and psychomotor development of children 3-8 years old 3. Increased awareness of children's multiple intelligences 4. More awareness of learning styles 5. Greater awareness of importance of multiple intelligences and learning styles in teaching 6. Enhanced awareness of developmentally appropriate activities for children 3-8 years old </div> <p>FACILITATOR INPUT (10 Minutes) Remind teachers that one of the principles was that children have individual differences. Children's learning and development is characterised by individual differences.</p> <p>Tell them that we are going to explore some of these individual differences now.</p> <p>Explain that you are going to give them examples of unique behaviours of children,</p> | <p style="text-align: center;">Prepared Flip Chart 2.1 from Session 2</p> |

FACILITATOR INPUT

Give them the following examples as you act them out. Dramatise it so it is humorous. “**Do they have children in their classrooms who....**”

Examples:

- just can't sit still, they always want to get up and move around. They are always swinging their legs or fidgeting. They can't think when they are sitting still.
- always are humming or singing to themselves as they do their school work. They are hearing music in their minds and tap the pencil to some unheard rhythm or they are moving to some unsung song. When they are told pay attention, they appear not to be concentrating.
- are so interested in animals and plants and things from outside that they are often bringing them into the classroom in their pockets. They may even be playing with them during their lessons.
- are forever doodling or drawing and the pages of their book have designs that they had made on them. They never stop doodling even as the teacher talks and they are listening and thinking.
- always are “visiting with their friends” and working in groups even when then are told to be quiet and do their work independently.

TEACHER INPUT

Teachers respond and give examples of similar children

FACILITATOR INPUT

Acknowledge their responses. Ask them why these children won't just sit quietly as you talk or do their work without talking, moving, or being distracted? What effect do they think these behaviours have on the children's learning?

Encourage them to talk about why the behaviour in these ways and how it effects their learning.

TEACHER INPUT

Teachers respond and discuss some reasons why they behave in these ways and how if affects learning.

FACILITATOR INPUT

Clarify for the teachers that these are not bad behaviours negatively affecting learning, but are examples of how these children learn. Children learn in different ways; some through music, movement, doing, drawing, etc.

Clarify that experts on brain research have discovered that these different behaviours or “mis-behaviours” are because our brains are different. Research from brain studies shows how different children develop knowledge and how they like to express what they know. They have different types of intelligences that influence their learning.

Write the words **Multiple Intelligences** on a blank flip chart.

Ask Teachers to discuss what they know about multiple intelligences.

TEACHER INPUT

Teachers discuss what they understand by multiple intelligences.

FACILITATOR INPUT

List their ideas on the flip chart.

Guide them so that they recognise that children learn differently and some children develop knowledge through music; others through actions; others through sharing ideas with other; some through reading silently; and so on.

Indicate that they will explore multiple intelligences more through an activity

ACTIVITY 2

FACILITATOR INPUT (15 Minutes)

Hand out the multiple intelligence handouts to each teacher.

Have teacher read the handouts and identify their own favourite types of intelligences.

TEACHER INPUT

Teachers use handouts to identify their own favourite intelligences.

FACILITATOR INPUT

Ask the teachers to stand up by type of intelligence: linguistic, logical mathematical, musical, etc. .

Blank Flip Chart
Marker

Multiple
Intelligence
Handouts 1 & 2

Put up Prepared Flip Chart 3.1. Ask teacher why knowledge of multiple intelligences is important to them as teachers.

Prepared Flip Chart 3.1

IMPORTANCE OF MULTIPLE INTELLIGENCES

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Prepared Flip Chart 3.1

TEACHER INPUT

Give reasons on why multiple intelligences is important.

FACILITATOR INPUT

Appreciate their comments and add additional ones.

Conclude that as teachers we need to support children with these different types of intelligences. That means that we need to incorporate teaching approaches for all of them.

Indicate that now they will to do another activity so they can reflect on suitable learning approaches and activities.

ACTIVITY 3

FACILITATOR INPUT (8 Minutes)

Display Prepared Flip Chart 3.2 and explains that the groups are formed based on their identified and preferred intelligences.

Review group membership by preferred intelligences. Rearrange groups if necessary. *(Groups should be somewhat equal in number)*

Prepared Flip Chart 3.2

| ACTIVITIES TO SUPPORT CHILDREN WITH _____ TYPE OF INTELLIGENCE | |
|--|-------------------------------|
| Age Group | Activities For Each Age Group |
| 3-4 years | 1. 2. 3. 4. 5. |
| 5-6 years | 1. 2. 3. 4. 5. |
| 7-8 years | 1. 2. 3. 4. 5. |

Prepared Flip Chart 3.2

FACILITATOR INPUT

Explain the activity: Each group is to copy the Flip Chart heading and insert the name of their preferred type of intelligence. They then list 15 activities that are suitable for children who have their preferred type of intelligence as follows: 5 activities that are suitable/ for children 3-4 years, 5 activities for children 5-6 years, and 5 activities for children 7-8 years.

Give out blank flip charts and markers to each of the 8 groups of multiple intelligences.

Tell them that they have 15 minutes for the activity and they have to be ready for the oral presentation of their work.

TEACHER INPUT (15 Minutes)

Teachers write activities for the three age groups for specific types of intelligences on the flip charts

FACILITATOR INPUT

Goes around and assists the groups as necessary.

After 15 minutes call teachers back to make oral presentations

Blank Flip Chart Paper and Markers

TEACHER INPUT (45 Minutes)

Teachers make presentations of group activity work.

FACILITATOR INPUT

Appreciate their work.

Emphasize that as teachers we need to support each group of children in their classroom with similar type of stimulating activities.

FACILITATOR INPUT (15 Minutes)

Explain that now we will explore learning styles and examples of activities they use in their own classroom to match the different learning styles.

Display Prepared Flip Chart 3.3 and give the Learning Styles Handout to the teachers.

Prepared Flip Chart 3.3

| ACTIVITES FOR LEARNING STYLES | |
|---|----------------------------------|
| Learning Styles | Examples of Classroom Activities |
| • Doing | 1. 2. 3. |
| • Discovery and Exploring | 1. 2. 3. |
| • Asking questions, talking and listening | 1. 2. 3. |
| • Imitation and role playing | 1. 2. 3. |
| • Trial and error and practice | 1. 2. 3. |
| • Learning from other children | 1. 2. 3. |

Ask them to read about the first learning style: **Doing**. Encourages them to discuss it, talk about children and classroom activities they have given to such children.

Completed Flip Charts for Groups 1-8
Masking Tape

Learning Styles Handout and Prepared Flip Chart 3.3

TEACHER INPUT

Teachers give responses

FACILITATOR INPUT

Facilitator writes down the examples of activities

FACILITATOR AND TEACHER INPUT

Facilitator and teacher repeat this pattern for each of the six learning styles.

FACILITATOR INPUT (5 Minutes)

Display Prepared Flip Chart 3.4.

Prepared Flip Chart 3.4

**REASONS WHY THEY NEED TO KNOW
CHILDREN'S LEARNING STYLES**

- 1.
- 2.
- 3.
- 4.

Prepared Flip
Chart 3.4

- Encourage the Teachers to discuss why it is important that they should know about children's learning styles.

TEACHER AND FACILITATOR INPUT

Teachers give responses which are recorded by Facilitator on flip chart Facilitator to add as necessary.

- Knowledge of learning styles facilitates their ability to enhance know how their children's learn
- Teachers can provide appropriate activities that encourage learning

Other reasons

CONCLUSION (5 Minutes)

Guide discussion so that teachers conclude that it is important that they know their pupils preferred intelligences and learning styles.

EVENING ASSIGNMENT (5 Minutes)

ACTIVITY 4

FACILITATOR INPUT (15 Minutes)

Indicate that they will now be given their evening assignment.

Displays Prepared Flip Chart 3.5

Prepared Flip Chart 3.5

| ACTIVITIES AND MATERIALS FOR DIFFERENT LEARNING STYLES | | |
|---|--|-----------|
| Learning Styles | Activities | Materials |
| <ul style="list-style-type: none"> - Doing - Discovery and Exploring - Asking questions, talking and listening - Imitation and role playing - Trial and error and practice - Learning from other children | | |
| <u>Group 1:</u> 3 year old <u>Group 2:</u> 4 year old <u>Group 3:</u> 5 year old | <u>Group 4:</u> 6 year old <u>Group 5:</u> 7 year olds <u>Group 6:</u> 8 year olds | |

Prepared Flip Chart 3.5

Explain the assignment:

- There will be six groups and they will be using flip charts and markers.
- Each group will have one age group to focus on.
- Each group will list 3 activities for each learning style that are developmentally appropriate for that age group.
- Each group also lists materials the children can use in the activities.
- The groups will make presentations of their group work in the morning.
- Invite teachers to ask questions about assignment.

TEACHER INPUT

Teachers ask questions

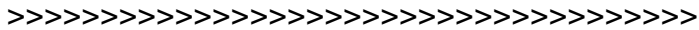
FACILITATOR INPUT

Answer questions.
Divide the Teachers into 6 groups.
Give each group markers and flip Charts

Break them into six groups and gives each group markers and flip chart paper.

End the session.

Wish the teachers a productive evening.



Blank Flip Chart
Paper and
Markers

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Recap and Review of Assignment: Appropriate Activities for Learning Styles Session 4 (60 minutes)

Preliminaries (Administrative Issues and Recap) Review of Group Work

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Rapporteur's Recap▪ Group Work Flip Charts for Evening Assignment▪ Display of Low Cost Teaching and Learning Materials▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape |

SESSION 4

Recap and Review of Assignment: Appropriate Activities for Learning Styles (60 minutes)

| | Resources |
|---|---------------------------------------|
| <p>FACILITATOR INPUT (5 Minutes) Welcome all of the participants to the Session.</p> <p>Asks for issues and concerns about venue, food, etc.</p> | |
| <p>TEACHER INPUT Give concerns regarding venue, accommodations, etc.</p> | |
| <p>FACILITATOR INPUT Invites the Rapporteur to give Recap of yesterdays sessions.</p> | |
| <p>RAPPORTEUR INPUT (5 Minutes) Give recap of events and issues from yesterdays sessions</p> | Rapporteur's Report |
| <p>FACILITATOR INPUT Call on Groups 1-6 back to make oral presentations of their group work on Activities and Materials for Each Learning Styles</p> | |
| <p>TEACHER INPUT (45 Minutes) Teachers make presentations of group activity work.</p> | Group Work Flip Charts for Groups 1-6 |
| <p>FACILITATOR AND TEACHER INPUT Appreciate their work.</p> <p>Invite comments from others.</p> | |
| <p>FACILITATOR INPUT Emphasizes again that as teachers they need to support each group of children in their classroom with similar type of stimulating activities.</p> | |

CONCLUSION

FACILITATOR INPUT

Display Flip Chart 2.1 from Session 2.
Ask participants if now all of the objectives for the Sessions 2, 3 and 4 have been met.

Prepared Flip Chart 2.1

CHILDREN'S DEVELOPMENT AND LEARNING STYLES, PARTS 1 AND 2 Objectives of Sessions 2 , 3 and 4

By the end of these sessions you will have:

- 1. Increased awareness of principles of development**
- 2. Increased awareness of cognitive, affective and psychomotor development of children 3-8 years old**
- 3. Awareness of children's multiple intelligences**
- 4. Awareness of learning styles**
- 5. Awareness of importance of multiple intelligences and learning styles in teaching**
- 6. Awareness of appropriate activities for children 3-8 years old**

Ask participants if now all of the objectives for the Sessions 2, 3 and 4 have been met.

TEACHER AND FACILITATOR INPUT

If participants agree, then conclude the session.

Thank the teachers their hard work.
Answer any questions.

Challenge the participants, especially the teachers, to use what they learned about learning styles and multiple intelligences in their classrooms or in their work with children.

Get them to commit themselves to using this knowledge about children for the benefit of children.

Prepared
Flip Chart 2.1

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Materials For Children Session 5 (120 minutes)

**Teaching and Learning Materials
Importance of Materials for Learning
Value of Specific Materials**

| | Resources |
|--|---|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Teachers Manual, Unit 2▪ Display of Low Cost Teaching and Learning Materials▪ Prepared Flip Charts 5.1 – 5.5▪ 4-5 scratch cards, puppet, children's book and 3-4 other materials▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape |

SESSION 5

Materials For Children

(120 minutes)

| | Resources |
|--|--|
| <p>FACILITATOR INPUT (5 Minutes) Welcome the teachers to the Session</p> <p>Introduces the session: Share with teachers the objectives for this session using prepared Flip Chart 5.1</p> <p style="text-align: center;"><i>Prepared Flip Chart 5.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">MATERIALS FOR CHILDREN <u>Objectives of Session 5</u></p> <p>By the end of these sessions you will have:</p> <ul style="list-style-type: none"> ▪ Greater awareness of importance of teaching and learning materials for children’s development ▪ Increased awareness of benefits of specific types of materials ▪ Greater awareness of important standards for teaching and learning materials </div> <p>FACILITATOR INPUT Display scratch cards, children’s book, puppet and 3-4 other materials.</p> <p>Ask teachers what these objects are and what they are for.</p> <p>TEACHER INPUT Teachers respond with various explanations.</p> <p>FACILITATOR INPUT Indicate that each of these are teaching and learning materials.</p> <p>Demonstrate how teacher can use scratch card as teaching material: Colour, pattern matching, number recognition, addition of pin number on he back etc.</p> | <p style="text-align: center;">Prepared Flip Chart 5.1</p> <p style="text-align: center;">4-5 scratch cards, puppet, children’s book and 3-4 other materials</p> |

Demonstrate how teacher can convert scratch card to flash card for pupil's use.

Demonstrate how each of the other materials are both a teaching and learning material.

Display Prepared Flip Chart 5.2 Teaching and Learning Materials

Prepared Flip Chart 5.2

| TEACHING AND LEARNING MATERIALS | | |
|---|---------------------------|---------------------------|
| To Consider | Teaching Materials | Learning Materials |
| <u><i>What are they?</i></u> | | |
| <u><i>Examples</i></u> | | |
| <u><i>Purposes</i></u> | | |
| <u><i>Who brings to Classroom?</i></u> <u><i>The Teacher?</i></u> <u><i>The Children?</i></u> | | |

Prepared Flip Chart 5.2

**FACILITATOR WITH TEACHER INPUT
(10 Minutes)**

Guide teachers to discuss what teaching materials are and what learning materials are.

List their ideas on the chart.

Guide teachers to give examples of teaching materials and learning materials. Ask if each example they give for teaching materials can also be a learning material and vice versa. Can the learning material be used by the teacher?

Help teachers to compare and contrast teaching and learning materials.

Guide them to discuss the purposes of teaching materials and purposes of learning materials.

FACILITATOR WITH TEACHER INPUT

Guide the teachers to discuss who brings teaching materials to the classroom and who brings learning materials to the classroom.

TEACHER INPUT

Teachers respond with various explanations

FACILITATOR INPUT

List their ideas on the chart.

Summarise the main ideas of the discussion:

- Teaching materials can be used as learning materials; learning materials can also be used as teaching materials
- Many everyday objects can be teaching and learning materials
- One material can have multiple uses
- Both teachers and children can bring materials to the classroom for teaching and learning

Indicate that they will do an activity now to explore further the importance of materials.

ACTIVITY 5

Display Prepared Flip Chart 5.3 Importance of Materials for Children’s Development

Prepared Flip Chart 5.3

| HOW MATERIALS ENHANCE CHILDREN’S DEVELOPMENT (___ Years Old) | | |
|--|-------------------------|--------------------|
| Cognitive | Social Emotional | Psychomotor |
| | | |
| GROUPS 1 and 2 | 3-4 YEAR OLDS | |
| GROUPS 3 and 4 | 5-6 YEAR OLDS | |
| GROUPS 5 and 6 | 7-8 YEAR OLDS | |

Prepared Flip Chart 5.3

FACILITATOR INPUT (5 Minutes)

Explain that in the activity they are to think how the materials enhance all areas of children's development; how they improve what children know and what they can do.

They will use the same groups they used in Activity 1
Confirm their groups

Tell them they have 15 minutes for the activity and they will present their report orally.

Give each group markers and flip chart paper.
Tell them to use the format as in Flip Chart 5.3

TEACHER INPUT (15 Minutes)

Teachers do group work on value of materials for children's development

FACILITATOR INPUT

Go around and assist as necessary. After 15 minutes call teachers to give their group work reports.

TEACHER INPUT (20 Minutes)

Teachers give group work reports on value of materials for children's development. To save time have one group for each age group present their ideas and the second group only presents new ideas.

FACILITATOR INPUT (10 Minutes)

Summarise their ideas and add from Teachers Manual any that were forgotten.

- Materials are motivators
- Enhance concept formation
- Increase awareness of relationships
- Contribute to skill development
- Allow for practice of learning strategies
- Encourage longer attention span
- Provide examples of role models

As a transition, review with teachers various types of teaching and learning materials they have been discussing.

Blank Flip Charts
and Markers

Completed
Group Work
Flip Charts for
Groups 1-4

Teachers' Group
Work Flip Charts
for Groups 1-4
and Teachers
Manual Unit 2,

Display Prepared Flip Chart 5.4.

Prepared Flip Chart 5.4

| <u>TYPES OF MATERIALS</u> | |
|---|------------------------------|
| Type of Materials | Examples and Benefits |
| <ul style="list-style-type: none"> ▪ Construction Blocks ▪ Objects for Water And Sand Play ▪ Out Door Materials, ▪ Sensory Objects For Manipulation, ▪ Print Materials ▪ Puppets ▪ Activity sheets | |

Prepared Flip Chart 5.4

FACILITATOR INPUT

Guide them in a discussion to identify examples within each category,

Also guide them to discuss the benefits of each type of material for children’s development, i.e., how does it enhance their development.

Remind them of various benefits that they listed during their last activity. Name specific benefits they listed and have them identify which materials provide that benefit.

**TEACHER AND FACILITATOR INPUT
(20 Minutes)**

Teachers give ideas on examples and benefits of each type of materials listed on the Prepared Flip Chart 5.4.

FACILITATOR INPUT

Appreciate their contributions

Summarise their examples and the benefits.

FACILITATOR AND TEACHER INPUT

Facilitator to ask them if they benefited from the activity and Teachers to respond.

Indicate that now that they are more aware of these various types of materials, they are challenged to make more of these materials available in their classrooms to enhance children's development.

FACILITATOR INPUT

Display Prepared Flip Chart 5.5

Prepared Flip Chart 5.5

| |
|---|
| <p style="text-align: center;"><u>STANDARD OF QUALITY FOR TEACHING AND LEARNING MATERIALS</u></p> <ol style="list-style-type: none">1.2.3.4. <p><u>(etc.)</u></p> |
|---|

Prepared Flip Chart 5.5

Invite the teachers to identify some standards of quality for teaching and learning materials.

N.B. If the teachers do not understand quality standards ask them to tell you what they think makes a learning material good.

FACILITATOR AND TEACHER INPUT (30 Minutes)

Brainstorm with teachers. Guide them to consider the following quality standards:

- Appropriate culturally and developmentally
- Appropriate size
- Durable
- Versatile
- Sufficient quantity and variety
- Attractive
- Functional
- Safe

List these on flip chart. Discuss why each is important for quality.

Appreciate their efforts.

CONCLUSION (5 Minutes)

FACILITATOR INPUT

Ask teachers to summarize what they have learned during the session.

TEACHER INPUT

Teachers summarize their learning.

FACILITATOR INPUT

Displays Prepared Flip Chart 5.1 Objectives for Session.

Prepared Flip Chart 5.1

MATERIALS FOR CHILDREN **Objectives of Sessions 5**

By the end of these sessions you will have:

- **Greater awareness of importance of teaching and learning materials for children's development**
- **Increased awareness of benefits of specific types of materials**
- **Greater awareness of important standards for teaching and learning materials**

Prepared
Flip Chart 5.1

FACILITATOR AND TEACHER INPUT

Ask Teachers if the objectives have been met.

Teachers respond.

FACILITATOR INPUT

If objectives were met, close the session.

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Low Cost Teaching and Learning Materials Session 6 (180 minutes)

Definition and Examples of Low Cost Materials

Local Sources of Low Cost Materials

Engaging the Community to Supply Low Cost Materials

Precautions in Obtaining and Using Low Cost Materials

| | Resources |
|--|---|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Teachers Manual Unit 3▪ Display of Low Cost Teaching and Learning Materials▪ Prepared Flip Charts 6.1 – 6.7▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape▪ Ruled Paper▪ School Displays of Materials Developed for Assessments▪ Assessment forms |

SESSION 6

Low Cost Teaching and Learning Materials (180 minutes)

| | Resources |
|---|--|
| <p>FACILITATOR INPUT (5 Minutes) Welcome the teachers to the Session</p> <p>Introduces the session</p> <p>Share with teachers the objectives for this session using Prepared Flip Chart 6.1</p> <p style="text-align: center;"><i>Prepared Flip Chart 6.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">LOW COST TEACHING AND LEARNING MATERIALS <u>Objectives of Sessions 6 and 7</u></p> <p>By the end of these sessions you will have:</p> <ul style="list-style-type: none"> ▪ Greater awareness of definition and examples of low cost materials. ▪ Increased awareness of sources of local low cost teaching and learning materials ▪ More awareness of strategies for mobilising the community to supply quality low cost teaching and learning materials ▪ Increased knowledge of precautions in obtaining and using low cost materials ▪ Increased capacity to make teaching and learning materials </div> <p>FACILITATOR INPUT (10 Minutes) Display Prepared Flip Chart 6.2 on Definition and Examples of Low Cost Materials</p> | <p style="text-align: center;">Prepared Flip Chart 6.1</p> |

Prepared Flip Chart 6.2

| LOW COST MATERIALS | |
|---------------------------|-----------------|
| Definitions | Examples |
| | |

Prepared Flip Chart 6.2

Ask teachers to describe what low cost materials mean to them.

- What are they?
- Are they free?
- How would they define them?
- What are some examples?

FACILITATOR AND TEACHER INPUT

As teachers respond, list their answers on the flip chart.

When they appear to have a common agreement, summarize their ideas.

Underline the most popular views.

FACILITATOR INPUT (10 Minutes)

Display Prepared Flip Chart 6.3

Prepared Flip Chart 6.3

| LOW COST TEACHING AND LEARNING MATERIALS | |
|---|-----------------------------|
| <u>Advantages</u> | <u>Disadvantages</u> |
| | |

Prepared Flip Chart 6.3

Invite teachers to identify some advantages and disadvantages of low cost materials.

TEACHER INPUT

Teachers give advantages and disadvantages.

FACILITATOR AND TEACHER INPUT

As teachers respond, list their answers on the flip chart.

Encourage them to reflect on how they can maintain the advantages.

Encourage them to consider how they can overcome the disadvantages?

ACTIVITY 7

FACILITATOR INPUT (5 Minutes)

Display Prepared Flip Chart 6.4 and indicate that they are now going to do a group activity.

Prepared Flip Chart 6.4

| SKILLS DEVELOPED BY MATERIALS | | |
|--------------------------------------|---|--|
| <u>Type</u> | <u>Skill Area & Skill Developed</u> | |
| 1. Sock Puppet | a) Oral Language (Articulation) | b) Social Relating (Conflict Resolution Strategies) |
| 2. Bottle Caps | a) Maths (Counting) | b) Colours (Discrimination) |
| 3. | | |
| ... | | |
| 25. | | |

Prepared Flip Chart 6.4

Explain that they will work in six groups.

Each group is to list 25 low cost items that can be used for teaching and learning materials

For each low cost material they are to list two skills areas that the materials will help develop.

They are to list the specific skills also that will be developed.

| | |
|--|---|
| <p>Explain: this is to be a competitive task. Each team will get points as follows:</p> <ul style="list-style-type: none">▪ 1 point for each low cost item, (1x25 = 25)▪ 1 point for each of the skills areas (1x2x25 = 50)▪ 4 points for each correct specific skill. (4x2x25 = 200) <p>They can earn between 1-275 marks for the team.</p> <p>Divide them into six groups</p> <p>Give each group the markers and flip chart paper</p> <p>Tell them that they 15 minutes for this activity</p> <p>Wish them success.</p> <p>TEACHER INPUT (15 Minutes) Teachers complete group activity.</p> <p>FACILITATOR INPUT After 15 minutes call teachers to give group reports.</p> <p>Tell them that at end of each group it will be scored.</p> <p>TEACHER INPUT (30 Minutes) Teachers give group reports and have group work scored by Facilitator and other teachers.</p> <p>FACILITATOR INPUT Correct or clarify any mistakes</p> <p>FACILITATOR INPUT Announce the winner either then or later. And discuss basis of winning. If this is not possible, score the charts over the evening.</p> <p>Declare all were actually winners. They all worked hard and they demonstrated how much they learned.</p> <p>Thank them for their hard work.</p> <p>Display Prepared Flip Chart 6.5</p> | <p>Blank Flip Chart Paper and Markers</p> <p>Completed Group Work Flip Charts</p> |
|--|---|

Prepared Flip Chart 6.5

| SOURCES OF LOW COST TEACHING AND LEARNING MATERIALS | | |
|--|----------------------------------|----|
| Materials | Locally Available Sources | |
| 1. | a) | b) |
| 2. | | |
| 3. | | |
| ... | | |
| 50. | | |

Prepared Flip Chart 6.5

FACILITATOR INPUT

Explain that teachers from each school are going to sit together and to identify 50 low cost materials and two local sources for each type of materials.

Arrange Teachers and Head Teachers by School. Have them make their lists on a paper. Distribute paper as necessary.

Explain that they only have 10 minutes to complete the list.

TEACHER INPUT (10 Minutes)

Teachers make their lists on the papers.

FACILITATOR TEACHER INPUT (20 Minutes)

Invite 2 schools to list 5 items each and their sources on the Prepared Flip Chart 6.5. Then invite 2 other schools to list 5 additional items and their sources. Schools can not repeat what has already been listed.

Continue this process of teachers listing materials and sources until 50 different items have been listed with their sources.

Ruled Paper

Prepared Flip Chart 6.5, additional flip chart papers, Markers and schools' lists

FACILITATOR INPUT

Appreciate their work.

Discuss the lists briefly.

Encourage schools to identify new materials to add to their lists and also new sources.

Display Prepared Flip Chart 6.6

Prepared Flip Chart 6.6

| |
|---|
| <p style="text-align: center;">STRATEGIES FOR ENCOURAGING COMMUNITY SUPPORT FOR LOW COST MATERIALS</p> <ol style="list-style-type: none">1.2.3.4.5.6. |
|---|

Prepared Flip Chart 6.6 and Teachers Manual Unit 3

**FACILITATOR AND TEACHER INPUT
(10 Minutes)**

Brainstorm with the teachers about possible strategies they may have used successfully to have communities involved in supplying and developing of low cost materials.

List their ideas on the flip chart.

ACTIVITY 8

FACILITATOR INPUT (5 Minutes)

Explain to teachers that they will do simulations (role plays) of **effective** strategies and **ineffective** strategies by teachers and schools for community involvement.

Tell them that each simulation is to last 5 minutes only and show clearly either an effective strategy being employed or a challenge made worse by ineffective strategies being used.

Divide them into 3 groups.

Group 1 Effective

Group 2 Ineffective

Group 3 Effective

N. B. Ensure that one of the effective groups uses the community Mobilisation Strategies on page 89 of Teachers Manual

Give groups 15 minutes to prepare their simulations.

TEACHER INPUT (15 Minutes)

Teachers prepare their 5 minute simulations.

FACILITATOR INPUT

Calls groups to do simulations

TEACHER AND FACILITATOR INPUT (30 Minutes)

Teachers to act out their simulations

Facilitator to guide other teachers to discuss how ineffective strategies could be reversed.

Also to guide teachers to discuss strengths of the effective strategies enacted.

Everyone to appreciate their efforts.

FACILITATOR INPUT (10 Minutes)

Remind the teachers of quality standards that they had for teaching and learning materials. Have teachers review these briefly.

Explain that now they will think about important precautions that need to be observed when we collect and use low cost materials.

Display Prepared Flip Chart 6.7

Prepared Flip Chart 6.7

**PRECAUTIONS IN COLLECTING
AND USING LOW COST MATERIALS**

Concern **How Will Concern Be Addressed**

1. Safety
2. Cleanliness
- 3.

Prepared Flip
Chart 6.7 and
Teacher
Manual Unit 3

FACILITATOR AND TEACHER INPUT

Brainstorm with teachers about the concerns for safety and cleanliness.

Guide the teachers so that each of the following are discussed:

- Who will ensure hygiene, when and how
- Who will ensure materials are safe for use, when and how

Have them discuss other precautions they also need to take in collecting and using low cost materials.

FACILITATOR INPUT

Summarize what the teachers suggested as precautions they will take to ensure materials are safe and hygienic.

Appreciate their discussion.

CONCLUSION (5 Minutes)

FACILITATOR INPUT

Ask teachers what they have learned in this session.

Revise any confusion and answer any questions.

Display Prepared Flip Chart 6.1

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Recap and Review of Assignment: Assessment of Schools' Materials Session 7 (60 minutes)

Preliminaries (Administrative Issues and Recap) Review of Schools' Materials

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Rapporteur's Recap▪ Completed Assessment Forms▪ Results of Quality Assessment▪ Prepared Flip Charts▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape |

SESSION 7

Recap and Review of Assignment: Assessment of Schools' Materials (60 minutes)

| | Resources |
|--|--|
| <p>FACILITATOR INPUT Welcome all of the participants to the Session.</p> <p>Ask for issues and concerns about venue, food, etc.</p> <p>Invite the Rapporteur to give Recap of yesterdays sessions.</p> | |
| <p>RAPPORTEUR INPUT Give recap of events and issues from yesterdays sessions</p> | Rapporteur's Report |
| <p>FACILITATOR INPUT Have teachers recall the materials and their assessment'</p> <p>Ask teachers which was the best in each of the standards:</p> <ul style="list-style-type: none">▪ Appropriate culturally and developmentally▪ Appropriate size▪ Durable▪ Versatile▪ Sufficient quantity and variety▪ Attractive▪ Functional▪ Safe <p>Let teachers give their opinions and reason.</p> <p>Call for the total scores to declare the runner up and winner in the Best Materials Categories and the School with the Most Votes. Give prizes.</p> <p>Declare that all were winners because they all saw and learned. They all got more ideas for making higher quality materials.</p> <p>Appreciate their work.</p> <p>Invite comments from others.</p> | Individual Participants' Materials Developed |

FACILITATOR AND TEACHER INPUT

Have Teachers discuss what they learned about quality low cost materials.

CONCLUSION

FACILITATOR INPUT

Emphasize again that as teachers we need to provide the best quality materials and ensure that we take precautions concerning safety and hygiene.

Indicate that in the evening assignment that evening they will get to apply this knowledge, that this evening they will be making some additional low cost materials for their schools.

End the session.

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Montessori Materials Session 8 (90 minutes)

Maria Montessori's Philosophy and Educational Aims Montessori Materials and Methods

| | Resources |
|--|---|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Prepared Flip Charts 8.1 – 8.4▪ Display of Montessori Materials▪ Video on Montessori Classroom OR Montessori Teachers to simulate a typical Montessori classroom▪ Flip Chart Stand▪ Masking Tape |

SESSION 8

Montessori Materials

(120 minutes)

| | Resources |
|--|--------------------------------|
| <p>FACILITATOR INPUT (5 Minutes) Welcome the teachers to the Session</p> <p>Introduce the session: Share with teachers the objectives for this session using prepared Flip Chart 8.1</p> <p style="text-align: center;"><i>Prepared Flip Chart 8.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">MONTESSORI METHODS & MATERIALS <u>Objectives of Sessions 8</u></p> <p>By the end of these sessions you will have:</p> <ul style="list-style-type: none"> ▪ Greater awareness of educational philosophy of Maria Montessori ▪ Increased awareness of Montessori learning materials ▪ More awareness of how to use these materials ▪ Greater awareness of Montessori methods </div> <p>Find out how much knowledge the teachers have of Maria Montessori, her methods and her materials.</p> <p>FACILITATOR AND TEACHER INPUT (5 Minutes) Discuss who Maria Montessori was and what she did.</p> <p>FACILITATOR INPUT Tell teachers that a special guest who is very familiar with Montessori methods and materials will take them through this session.</p> <p>Introduce the Guest Presenter.</p> <p>GUEST PRESENTER INPUT (5 Minutes) Give brief background of his or her involvement with</p> | <p>Prepared Flip Chart 8.1</p> |

Montessori methods and materials.

Display Prepared Flip Chart 8.2

Prepared Flip Chart 8.2

MARIA MONTESSORI (1870-1952)

Background

- First female medical doctor in Italy
- Worked in Children's Ward in hospital
- Believed mental deficiencies in children could be offset by training rather than medical treatment
- Shifted to Education

Educational Philosophy

- First three years form the foundation for the rest of life
- Child Centred
- Holistic
- Mutual respect of child and teacher
-

Educational Aims:

To Ensure the child is:

- prepared for life
- able to meet challenges of changing conditions

Prepared
Flip Chart 8.2

GUEST PRESENTER INPUT

Give brief history of Maria Montessori's background,

Discuss her educational philosophy and educational aims.

Discuss the relevance of these to Kenya

Invite questions.

TEACHER AND GUEST PRESENTER INPUT

Have short question and answer period

GUEST PRESENTER INPUT (5 Minutes)

Displays Prepared Flip Chart 8.3

Prepared Flip Chart 8.3

MARIA MONTESSORI

Specific educational goals

Offer children opportunity to reach their potential and seeks to promote:

- self confidence and self esteem
- a sense of achievement and self worth
- a sense of responsibility for themselves and their actions
- independence
- a sense of security
- tolerance
- cooperation with others and community
- respect for the rights and needs of others
- concentration and persistence in completing a task
- initiative and self-motivation
- good work habits
- a joy of work and a love of learning
- creative intelligence and imagination
- ability to discriminate and judge

Prepared Flip Chart 8.3

GUEST PRESENTER INPUT (5 Minutes)

Briefly discuss Maria Montessori's Educational goals.

Display Prepared Flip Chart 8.4

Prepared Flip Chart 8.4

MARIA MONTESSORI

| | | |
|---------------------|-----------------------|---------------------|
| | <u>Methods</u> | |
| <i>Facts</i> | | <i>Myths</i> |

Prepared Flip Chart 8.4

GUEST PRESENTER INPUT

Invite teachers to say what they know about her methods

TEACHER AND GUEST PRESENTER INPUT

Teachers to give their ideas and Presenter to record them as fact or myth and to gently clarify the myths with facts.

Discuss until there is common understanding.

GUEST PRESENTER INPUT (10 Minutes)

Present relevant Montessori materials one by one from the display.

Demonstrate how each material is to be used.

Invite teachers to use and demonstrate how to use.

TEACHER AND GUEST PRESENTER INPUT

Teachers demonstrate use of the materials with the Presenter overseeing.

GUEST PRESENTER INPUT (5 Minutes)

Tell teachers that now they will explore how Montessori materials are to be made. Indicate they must meet particular specifications and standards.

Discuss clearly how each material is to be made according to the Montessori tradition.

Clarify her ideas on colour, shape and size of materials.

Invite more questions and pass materials around for teachers to look at.

TEACHER AND GUEST PRESENTER INPUT

Teachers look at materials and Presenter answers questions.

GUEST PRESENTER INPUT (15 Minutes)

Tell teachers that they will now see how a typical Montessori classroom operates.

Show video or have a simulation classroom activity with trained Montessori Teachers.

Display of
Montessori learning
materials

Video on Montessori
classroom OR
teacher simulation of
Montessori
classroom

CONCLUSION

FACILITATOR INPUT (5 Minutes)

Ask teachers what they have learned in this session.

Ask one of the teachers to give vote of thank to the Guest Presenter for excellent presentation.

Display Prepared Flip Chart 8.1

Prepared Flip Chart 8.1

MONTESSORI METHODS & MATERIALS **Objectives of Sessions 8**

By the end of these sessions you will have:

- **Greater awareness of educational philosophy of Maria Montessori**
- **Increased awareness of Montessori learning materials**
- **More awareness of how to use these materials**
- **Greater awareness of Montessori methods**
-

Ask teachers if objectives were met.

If teacher concur, thank the Guest Presenter again and close the session.

Prepared
Flip Chart 8.1

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Madrasa Resource Centre and Mango Tree Materials Session 9 (120 minutes)

Background of Madrasa Resource Centre
MRC Materials and Methods
Background of Mango Tree Project
Mango Tree Materials

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Prepared Flip Charts 9.1 – 9.3▪ Display of MRC materials▪ Display of Mango Tree Materials▪ Video on MRC Classroom OR MRC Teachers to simulate a typical Montessori▪ Mango Tree Handouts▪ Flip Chart Stand▪ Masking Tape |

SESSION 9

Madrassa Resource Centre and Mango Tree Materials

(120 minutes)

| | Resources |
|---|--|
| <p>FACILITATOR INPUT (5 Minutes) Welcome the teachers to the Session</p> <p>Introduce the session: Share with teachers the objectives for this session using prepared Flip Chart 9.1</p> <p style="text-align: center;"><i>Prepared Flip Chart 9.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">MADRASSA RESOURCE CENTRE AND MANGO TREE MATERIALS <u>Objectives of Sessions 9</u></p> <p>By the end of these sessions you will have:</p> <ul style="list-style-type: none"> ▪ Greater awareness of the background and programmes of Madrassa Resource Centre (MRC) ▪ Increased awareness of MRC materials ▪ Increased awareness of Mango Tree materials ▪ Greater awareness of how to make and use the Mango Tree materials </div> <p>Find out how much knowledge the teachers have of Madrassa Resource Centre, their training methods and materials.</p> <p>FACILITATOR Introduce the Guest Presenter who will give them information about the Madrassa Resource Centre.</p> <p>GUEST PRESENTER INPUT (15 Minutes) Give brief background of his or her involvement with MRC programmes and materials.</p> <p>Show the Video show or presentation on Madrassa Resource Centre, its history, training programmes and the materials they encourage teachers to use.</p> | <p style="text-align: center;">Prepared Flip Chart 9.1</p> <p style="text-align: center;">Video Show or Power Point Presentation on Madrassa Resource Centre, LCD Projector Computer</p> |

| | |
|---|------------------------------|
| <p>Encourage questions.</p> <p>TEACHER AND GUEST PRESENTER INPUT Have question and answer period</p> <p>Clarify the importance of materials and supervision of their making and use in classrooms.</p> <p>Discuss until there is common understanding.</p> <p>GUEST PRESENTER INPUT (5 Minutes) Take materials from MRC materials display and explain how they train teachers to make and use that material.</p> <p>Invite teachers to select some of these materials and to demonstrate how their use.</p> <p>TEACHER AND GUEST PRESENTER INPUT Teachers demonstrate use of the materials with the Presenter overseeing.</p> <p>Invite more questions and pass materials around for teachers to look at.</p> <p>Collect materials.</p> <p>FACILITATOR INPUT (5 Minutes) Ask teachers what they have learned in this session.</p> <p>Ask one of the teachers to give vote of thank to the Guest Presenter for excellent presentation.</p> <p>Indicate that now they will explore another set of materials from the Mango Tree Project in Uganda.</p> <p>Invite teachers in groups to walk by the Mango Tree Materials Display.</p> <p>Display Prepared Flip Chart 9.2</p> | <p>MRC Materials Display</p> |
|---|------------------------------|

| | |
|--|---|
| <p style="text-align: center;"><i>Prepared Flip Chart 9.2</i> MANTO TREE PROJECT</p> <p><u>Background</u></p> <p><u>Goals</u></p> <p>Ask the teachers to share what they know of the Mango Tree Project.</p> <p>Describe the background and goals of the Mango Tree Project and complete the Flip Chart.</p> <p>Pass out the handouts on the Mango Tree Project Materials for teachers to look at.</p> <p>FACILITATOR AND TEACHER INPUT (15 Minutes)</p> <p>Discuss the Instructional materials pictured in the handouts and review how they are to be used.</p> <p>Ask teachers to select specific instructional materials from the Mango Tree Materials Display and demonstrate how they are used in the classroom.</p> <p>Indicate the now they will explore in more detail how to make these materials in an activity.</p> <p style="text-align: center;">ACTIVITY 11</p> <p>Explain that this activity will be done by schools.</p> <p>Have teachers rearrange themselves by schools.</p> <p>Display Prepared Flip Chart 9.3</p> | <p style="text-align: center;">Prepared Flip Chart 9.2</p> <p style="text-align: center;">Mango Tree Handouts</p> <p style="text-align: center;">Mango Tree Materials Display</p> |
|--|---|

Prepared Flip Chart 9.3

| MANTO TREE MATERIALS | | |
|---------------------------------------|---|----------------|
| <i>Type of Instructional Material</i> | <i>Locally Available Resources to Use</i> | <i>Sources</i> |
| | | |

Prepared
Flip Chart 9.3

FACILITATOR INPUT

Explain the activity:

- Each school will have 10 instructional materials to discuss.
- They are to list on papers provided the locally available resources they could use for making those Mango Tree materials
- They are also to identify how they will get these resources: the sources.

Explain that they will have 10 minutes for the Activity.

Assign specific instructional materials from the handouts to each school for their discussion.

TEACHERS INPUT (10 Minutes)

Do the group work activity.

FACILITATOR INPUT

After 10 minutes call teachers back to Plenary.

FACILITATOR AND TEACHER INPUT (5 Minutes)

Invite 2 schools to list 5 instructional materials each, the locally available resources they would use and their sources on the Prepared Flip Chart 9.6.

Ask teachers from the various schools what other locally available resources they listed for making that instructional material.

Then invite 2 other schools to list 5 additional items, the resources they would use and their sources.

Continue this process of teachers listing instructional materials, resources and their sources until all of the Mango Tree items have been listed.'

Ask Teachers to discuss what they learned in this session.

Teachers to share what they learned.

Answer questions.

FACILITATOR INPUT

Display Prepared Flip Chart 9.1

Prepared Flip Chart 9.1

MADRASSA RESOURCE CENTRE AND MANGO TREE MATERIALS **Objectives of Sessions 9**

By the end of these sessions you will have:

- **Greater awareness of the background and programmes of Madrassa Resource Centre (MRC)**
- **Increased awareness of MRC materials**
- **Increased awareness of Mango Tree materials**
- **Greater awareness of how to make and use the Mango Tree materials**

Ask teachers if objectives were met.

If teacher concur, thank the Guest Presenter again and close the session.

Prepared
Flip Chart 9.1

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Materials Development Session 10 (270 minutes)

Final Tips on Development of Materials Development of Materials for Classes and Schools

| | Resources |
|--|---|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Raw Materials for Development of Materials▪ Papers and pens for teachers▪ Masking Tape |

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Recap and Review of Assignment:

Presentations of Materials Developed Session 11 (60 minutes)

Preliminaries (Administrative Issues and Recap) Review of Schools' Materials

| | Resources |
|--|---|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Rapporteur's Recap▪ Materials Developed by Participants▪ Display of Low Cost Teaching and Learning Materials▪ Prepared Flip Charts▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Markers▪ Masking Tape |

SESSION 11

Recap and Review of Assignment: Presentations of Materials Developed (60 minutes)

| | Resources |
|---|---------------------|
| <p>FACILITATOR INPUT Welcome all of the participants to the Session.</p> <p>Ask for issues and concerns about venue, food, etc.</p> <p>Invite the Rapporteur to give Recap of yesterdays sessions.</p> | |
| <p>RAPPORTEUR INPUT (10 Minutes) Give recap of events and issues from yesterdays sessions</p> | Rapporteur's Report |
| <p>FACILITATOR INPUT Have teachers place all of the materials that they developed in front of them.</p> <p>Have each teacher:</p> <ul style="list-style-type: none">• present their materials,• discuss how they maintained the quality standards and• discuss two activities they will use their materials in it to enhance learning. | |
| <p>TEACHER INPUT (40 Minutes) Present materials and how they maintained the quality standards.</p> <p>Discuss briefly how each material will be used in their classroom.</p> | Teachers' Materials |
| <p>FACILITATOR INPUT Ask for comments concerning the highest quality materials.</p> <p>Appreciate the work of all of the teachers.</p> | |

FACILITATOR AND TEACHER INPUT (5 Minutes)

Have brief discussion on what they learned about making quality low cost materials.

CONCLUSION (5 Minutes)

FACILITATOR INPUT

Emphasize again that as teachers we need to provide the best quality materials and ensure that we take precautions concerning safety and hygiene.

End the session.

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Child Centred Methodologies Session 12 (120 minutes)

Shift from Teacher to Child Centred Methodologies
Use of Materials in Child Centred Approaches
Thematic Approach
Problem Solving Approach

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Teachers Manual, Unit 4▪ Prepared Flip Charts 12.1 – 12.7▪ Display of Low Cost Teaching and Learning Materials▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape▪ Markers |

Have them discuss what the strengths and weakness of each approach.

TEACHER INPUT

Teachers respond and discuss strengths and weaknesses of teacher centred and child centred approaches

FACILITATOR INPUT (5 Minutes)

Display Prepared Flip Chart 2.3 on Principles of Child Development.

Prepared Flip Chart 2.3

PRINCIPLES OF CHILDREN DEVELOPMENT

- **Children learn best when their physical needs are met and they feel safe and secure**
- **Children construct knowledge**
- **Children learn through social interaction with adults and other children**
- **Children learn through play**
- **Children’s interests and “need to know motivate learning**
- **Children’s development and learning are characterized by individual variation.**

Prepared
Flip Chart 2.3

Ask Teachers to identify which approach matches the Principles Of Children’s Development.

- Which one encourages children to construct knowledge?
- Which one allows children to learn through social interaction with adults and other children?
- Which one allows children to learn through play?
- Which one focuses on children’s interests and need to know?
- Which one provides a diversity of learning activities to correspond to children’s individual differences?

FACILITATOR WITH TEACHER INPUT

Teachers respond and discuss.

FACILITATOR INPUT

Assist teachers to conclude that the child centred classroom with learning centres matches the Principles of Children’s Development.

Display Prepared Flip Chart 12.3

Prepared Flip Chart 12.3

**ROLE OF TEACHERS IN
CHILD CENTRED APPROACHES**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Prepared Flip Chart 12.3

Encourage the Teachers to indicate what they think are the roles of teachers in child centred classrooms.

TEACHER WITH FACILITATOR INPUT (15 Minutes)

Respond and guided in identifying various roles.

Continue to guide teachers to **role of facilitating learning**.

Have them discuss this role for a few minutes. What does it mean? What activities are involved?

Also continue to guide teachers to **role of mentoring** the children.

Have them discuss this role for a few minutes also. What does mentoring mean? What does it involve?

Display Prepared Flip Chart 12.4

Prepared Flip Chart 12.4

TEACHER'S ACTIVITIES

| | |
|----------------------------------|---------------------|
| Telling or direct teaching | Listening |
| Questioning | Giving Feed Back |
| Reinforcing | Observing |
| Modelling | |
| Working with Individual Children | Working with Groups |
| Nurturing | |

Prepared Flip Chart 12.4

Ask teachers to describe these teacher activities in a child centred classroom. When do they do them? How do they organize for them?

| <p>TEACHER INPUT Respond to questions and have discussion.</p> <p>FACILITATOR INPUT (5 Minutes) Thank them for their good discussion.</p> <p>Ask them about the child centred approach called Thematic Approach. What is it?</p> <p>Display the Prepared Flip Chart 12.5</p> <p style="text-align: center;"><i>Prepared Flip Chart 12.5</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"><thead><tr><th style="text-align: center;">CHARACTERISTICS OF THEMATIC APPROACH</th></tr></thead><tbody><tr><td>1.</td></tr><tr><td>2.</td></tr><tr><td>3.</td></tr><tr><td>4.</td></tr><tr><td>5.</td></tr><tr><td>6.</td></tr></tbody></table> <p>Have teachers describe what they know about the child centred approach. Use the Teachers Unit as a guide for discussion of the characteristics.</p> <p>TEACHER INPUT Respond to Facilitator's questions.</p> <p>FACILITATOR INPUT If teachers are familiar with Thematic Approach have them give the characteristics: Integrated, Holistic, etc.</p> <p>Provide information as needed for teachers to have some understanding of thematic approach.</p> <p>Encourage teachers to share whether they have used thematic approach and their experiences.</p> | CHARACTERISTICS OF THEMATIC APPROACH | 1. | 2. | 3. | 4. | 5. | 6. | <p>Prepared Flip Chart 12.5 Teachers' Manual Unit 4 Section 3</p> <p>Teachers Manual Unit 4, Section 3</p> |
|--|---|----|----|----|----|----|----|--|
| CHARACTERISTICS OF THEMATIC APPROACH | | | | | | | | |
| 1. | | | | | | | | |
| 2. | | | | | | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| 6. | | | | | | | | |

TEACHER INPUT

Respond to Facilitator’s requests.

ACTIVITY 12

FACILITATOR INPUT (5 Minutes)

Indicate that they will do an activity relating to Thematic Approach.

Explain the activity. They are

- to work in class levels
- to have two groups per class level.
- to select a theme for their group
- to list eight activities appropriate for their theme (two activities for four different content areas)
- to complete the activity in 15 minutes

Have teachers organize themselves into their groups at this time. Each class group has to be divided to get the 8 groups for the activity.

Display the Prepared Flip Chart 12.6

Prepared Flip Chart 12.6

| LISTS OF THEMATIC ACTIVITIES | |
|-------------------------------------|-------------------|
| <u>Theme</u> | |
| <i>Content Area</i> | <i>Activities</i> |
| 1. | 1. 2. |
| 2. | 1. 2. |
| 3. | 1. 2. |
| 4. | 1. 2. |
| <u>Groups by Class Level</u> | |
| 1. A & B | Pre primary |
| 2. A & B | Std. One |
| 3. A & B | Std. Two |
| 4. A & B | Std. Three |

Prepared
Flip Chart 12.6

| | |
|---|---|
| <p>Make sure that understand what they are to do.</p> <p>Give groups the flip chart paper and markers. Tell the teachers that they have 15 minutes only for this activity.</p> <p>TEACHER INPUT (15 Minutes) Teachers do group work on listing thematic activities for children.</p> <p>FACILITATOR INPUT Call groups back for presentation of their group work reports.</p> <p>TEACHER INPUT (40 Minutes) Teachers make oral presentations of their groups work.</p> <p>FACILITATOR INPUT Ask for comments and suggestions after each group.</p> <p>Appreciate the work of each group.</p> <p>Tell teachers that with child centred activities go the materials. They will now think of materials for specific activities.</p> <p>Tell them that now they have to consider what materials they would use in these activities</p> <p>FACILITATOR AND TEACHER INPUT (5 Minutes) Call on specific groups to select an activity on their charts.</p> <p>Brainstorm with the teachers on the materials they would use for that specific activity.</p> <p>Repeat that pattern for 5 activities.</p> <p>Guide teachers in a discussion to realize that:</p> <ul style="list-style-type: none">• every activity will require materials and• child centred approaches require a variety of materials. | <p>Blank flip chart paper and markers</p> <p>Completed Group Work Flip Charts</p> <p>Completed Group Work Flip Charts</p> |
|---|---|

Discuss with teachers the importance of materials in child centred approaches.

Ask the teachers what would happen if the materials were not available.

Ask teachers what they have learned about the importance of materials in these activities.

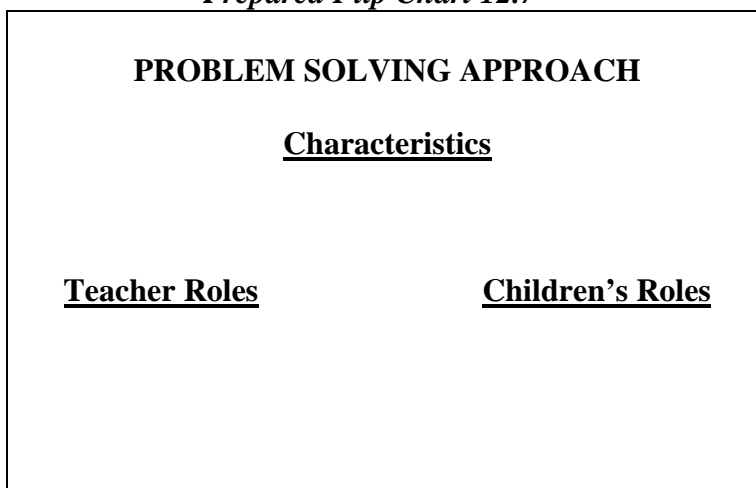
FACILITATOR INPUT (5 Minutes)

Indicate that Thematic Approach is only one of the child centred approaches. Montessori was another.

Explain that now they will consider Problems Solving Approach.

Display Prepared Flip Chart 12.7

Prepared Flip Chart 12.7



Prepared
Flip Chart 12.7

Ask the teachers to share what they know about this approach.

FACILITATOR AND TEACHER INPUT (10 Minutes)

Use the information in the Trainers Manual Unit 4 to guide them to understand that it is like training children to use the scientific method to solve every day problems.

Have teachers acknowledge that this is an important skill for children to learn.

Trainers'
Manual Unit 4

Review the steps in the scientific method. List these under children's roles as they are to learn those steps. Ask teachers what are their teacher's roles in enhancing children's problem solving skills

Guide them to understand that the teacher is to:

- Provide appropriate level of problems
- Assist the children to identify the problem
- Help the children to learn how to solve the problem (apply the steps).

Give the teachers several appropriate examples.

Ask them the importance of this child centred approach.

Ask them to tell the importance of materials in problem solving approach.

Help them to the conclusion that materials are very important in child centred approaches: **The materials are the basis of the activities that enhance children's learning in all child centred approaches and methods.**

CONCLUSION (5 Minutes)

Ask teachers what they have learned in the session.

Display Prepared Flip Chart 12.1

Prepared Flip Chart 12.1

CHILD CENTRED APPROACHES **Objectives of Sessions 8**

By the end of these sessions you will have:

- **Awareness of importance of child centred approaches**
- **Increase awareness of thematic approach and problem solving approaches**
- **Awareness of importance of materials in child centred approaches**

.Ask teachers if they have met the objectives of the session. If they agree, close the session.

Prepared
Flip Chart 12.1

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Effective Planning Session 13 (120 minutes)

Roles of ECD Guidelines and Primary Syllabus
Organization of the ECD Guidelines and
Lower Primary Education Syllabus
Schemes of Work
Lesson Planning

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Teachers Manual, Unit 5▪ Guidelines for Early Childhood Development (ECD) in Kenya▪ Primary Education Syllabus, Volume One and Two▪ Prepared Flip Charts 13.1-13.5▪ Handouts, if necessary of Primary Syllabus/ ECD Guidelines▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape▪ Markers |

SESSION 13

Effective Planning

(120 minutes)

| | Resources |
|--|---|
| <p>FACILITATOR INPUT (5 Minutes) Welcome the teachers to the Session</p> <p>Introduce the session: Share with teachers the objectives for this session using prepared Flip Chart 13.1</p> <p style="text-align: center;"><i>Prepared Flip Chart 13.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">EFFECTIVE PLANNING <u>Objectives of Sessions 13</u></p> <p>By the end of these sessions you will have:</p> <ul style="list-style-type: none"> ▪ Greater awareness of importance of reflective planning ▪ Increased awareness of roles of the ECD Guidelines and Primary Education Syllabus in planning ▪ Increased awareness of the organizational structure of the ECD Guidelines and Primary Education Syllabus, Volume One and Volume Two. ▪ Enhanced capacity to reflectively plan Schemes of Work and Lesson Plans </div> <p>FACILITATOR INPUT Tell teachers that effective planning is reflective planning. If they reflect as they plan they will be more effective as teachers.</p> <p>Display Prepared Flip Chart 13.2</p> | <p style="text-align: center;">Prepared Flip Chart 13.1</p> |

FACILITATOR INPUT

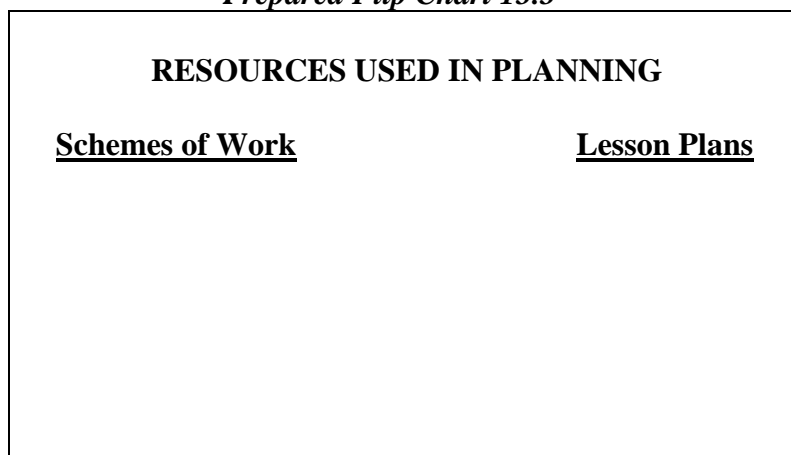
Ask teachers what types of written plans they make.

TEACHER AND FACILITATOR INPUT (20 Minutes)

Teachers should respond schemes of work and lesson plans. If not guide them.

Display Prepared Flip Chart 13.3

Prepared Flip Chart 13.3



Prepared
Flip Chart 13.3

Ask them what materials and resources they use when they are planning their Schemes of Work and Lesson Plans.

TEACHER INPUT

Teachers should indicate various resources.

FACILITATOR INPUT

List the resources they suggest.

If they don't indicate the Primary Education Syllabus and the Guidelines for Early Childhood Development (ECD) in Kenya add them.

Ask them why they don't use them in their planning.

Tell teachers that Primary Education Syllabus and the Guidelines for Early Childhood Development (ECD) are very important for reflective planning.

FACILITATOR INPUT (10 Minutes)

Display Prepared Flip Chart 13.4

| | |
|---|-------------------------------------|
| <p style="text-align: center;"><i>Prepared Flip Chart 13.4</i></p> <div style="border: 1px solid black; padding: 10px; text-align: center;"><p>IMPORTANCE OF SYLLABUS/ ECD GUIDELINES FOR TEACHERS PLANNING</p></div> <p>Ask Teachers how these documents help teachers to plan. What kind of information do they provide?</p> <p>TEACHER INPUT Respond to the question.</p> <p>FACILITATOR WITH TEACHER INPUT (10 Minutes) List teachers' responses on the flip chart.</p> <p>Guide them to discuss how these resources indicate</p> <ul style="list-style-type: none">▪ what they should teach,▪ when it should be taught and▪ who should be taught (children of which level). <p>These documents give the scope and sequence of what they should teach for each class level.</p> <p>Conclude again that these documents are very important for teachers planning.</p> <p>Tell teachers that they will now do an activity with these resources to increase their knowledge of how they are organized.</p> <div style="border: 2px solid black; padding: 5px; text-align: center; margin: 10px 0;"><p><i>ACTIVITY 13</i></p></div> <p>FACILITATOR INPUT (10 Minutes)</p> <p>Have teachers bring out the copies of the Primary Education Syllabus, Volume One and Volume Two. Give out handouts of pages to those who do not have.</p> | <p>Prepared Flip Chart 13.4</p> |
|---|-------------------------------------|

| | |
|--|--|
| <p>Tell them that you are going to have them become more familiar with these documents.</p> <p>Ask them to find the page numbers of the following in the Primary Education Syllabus, Volume One:</p> <ul style="list-style-type: none">▪ National Goals of Education (Page iv)▪ Objectives of Primary Education in Kenya (Page vi)▪ Table of Contents (Page viii) <p>Have them review table of contents of the Primary Education Syllabus for 1 minute.</p> <p>Ask them to find the page numbers of the following in the Guideline for Early Childhood Development in Kenya.:</p> <ul style="list-style-type: none">▪ National Goals of Education (Page iii)▪ Table of Contents (No page No.)▪ General Objectives of Early Childhood Development (ECD) Programme (Page v)▪ Section III Learning , Developmental Needs and Curriculum for Children 3-6 years (Page 37) <p>Have them review Section III of the Guidelines for 2 minutes</p> <p>Ask them to find the Volume and page numbers of the following in the Primary Education Syllabus:</p> <ul style="list-style-type: none">▪ General Objectives for Primary Education English (Volume One Page 4)▪ General Objectives for Primary Education Mathematics (Volume Two page 4) <p>Thank them for their efforts.</p> <p>Encourage them that they need to know these resources very well.</p> <p>FACILITATOR INPUT (15 Minutes) Show Prepared Flip Chart 13.5</p> | <p>Primary Education Syllabus, Volume One and Volume Two and Guidelines for Early Childhood Development (ECD) In Kenya</p> |
|--|--|

Prepared Flip Chart 13.5

| | |
|--------------------------------------|------------------------|
| COMPONENTS OF SCHEMES OF WORK | |
| <i>Thematic ECD</i> | <i>Primary Classes</i> |

Prepared
Flip Chart 13.5

Ask teachers to tell you what is included in their Schemes of Work. What are the names of the parts (Components)

TEACHER INPUT

Teachers respond to the question.

FACILITATOR INPUT

List the components on the Flip Chart:

| Parts Of A Thematic ECD Scheme of Work | Parts Of A Primary Class Scheme of Work |
|---|---|
| ▪ Day | ▪ Week |
| ▪ Week | ▪ Lesson |
| ▪ Theme/ sub-theme | ▪ Topic/ Sub Topic |
| ▪ Content areas | ▪ Objectives |
| ▪ Objectives | ▪ Teaching/Teachers' Activities and Learning/Learner's Activities |
| ▪ Activities for 2-4 years | ▪ Resources |
| ▪ Activities for 5-6 years | ▪ Remarks |
| ▪ Resources | |
| ▪ References | |
| ▪ Remarks | |

Tell teachers that when they do their evening activity in their groups they have to find out which of these components are in the Syllabus or the Guidelines.

Remind them that they may have to look at various content areas.

FACILITATOR INPUT (15 Minutes)

Display Prepared Flip Chart 13

Prepared Flip Chart 13.6

| |
|--|
| <p style="text-align: center;">COMPONENTS OF LESSON PLANS</p> <p>Lesson Objectives Teaching and Learning Resources and Materials Teaching Methods Teaching and Learning Activities Lesson Evaluation</p> |
|--|

Prepared
Flip Chart 13.6

Ask Teachers if what is on the flip chart is correct. Are those the parts of their lessons plans?

Make adjustments as needed.

Have Head Teachers note that there may be differences in the lesson plans of Thematic ECD and Primary classes.

FACILITATOR AND TEACHER INPUT (10 Minutes)

Guide the Teachers to discuss each of the components of a lesson plan and its importance.

FACILITATOR INPUT

Conclude the discussion.

Indicate that now they will do an evening activity to apply the knowledge that they have about Schemes of Work and lesson plans.

.....

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Recap and Review of Assignment:

Schemes of Work and Lesson Plan and Micro - Lessons

Session 14 (150 minutes)

Preliminaries (Administrative Issues and Recap)

Presentations of Lesson Plan and Schemes of Work

Presentations of Micro - Lessons

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Groups' Prepared Flip Charts for Schemes of Work and lesson plans▪ Groups Teaching and Learning Materials for Micro - Lesson▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape▪ Markers |

SESSION 14

Recap and Review of Assignment: Schemes of Work and Lesson Plan, and Micro - Lessons (150 minutes)

| | Resources |
|---|------------------|
| <p>FACILITATOR INPUT Welcome all of the participants to the Session.</p> <p>Ask for issues and concerns about venue, food, etc.</p> <p>Invite the Rapporteur to give Recap of yesterdays sessions.</p> <p>RAPPORTEUR INPUT Give recap of events and issues from yesterdays sessions</p> <p>FACILITATOR INPUT Have teachers hang up their Schemes of Work.</p> <p>Have groups present their Schemes of work.</p> <p>TEACHER INPUT Groups present their Schemes of Work by level beginning with Standard 3 and going down to ECD.</p> <p>Encourage discussion of each group's work.</p> <p>FACILITATOR AND TEACHER INPUT Discuss any issues that arise, such the differences between ECD and primary.</p> <p>FACILITATOR INPUT Have teachers hang up their lesson plans.</p> <p>Have groups present their lesson plans.</p> | |

TEACHER INPUT

Groups present their lesson plans by level beginning with Standard 3 and going down to ECD

Encourage discussion of each group's work.

FACILITATOR AND TEACHER INPUT

Discuss any issues that arise, including any differences between ECD and primary.

FACILITATOR INPUT

Thank the teachers for their excellent work

Have Groups do their Micro – Teaching again beginning with Standard 3 and moving down to ECD.

TEACHER INPUT

Groups do their micro teaching beginning with Standard 3 and going down to ECD

FACILITATOR AND TEACHER INPUT

Encourage discussion of each group's work. Were they child centred? Did they select the most appropriate teaching and learning materials for the lesson? Did they make good use of the teaching and learning materials? How might they improve so that in the classroom they are better able to enhance children's learning?

After every group has presented, discuss any issues that arose concerning

- Introduction of lesson
- Motivation of children
- Sustaining children's attention
- Activities for various levels
- Selection and use of materials
- Review children's learning
- Conclusion of lesson
- Overall classroom management

FACILITATOR INPUT

Congratulate each group for their hard work!

Encourage them to accept the challenges of teaching.

Close the session.

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Enhancing Effective Use of Materials Session 15 (120 minutes)

| | Resources |
|--|--|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Teachers Manual Unit 6▪ Displays of Low Cost Teaching and Learning Materials▪ Prepared Flip Charts 15.1 – 15.8▪ Blank Flip Charts▪ Flip Chart Stand▪ Papers and pens for teachers▪ Masking Tape |

SESSION 15

Enhancing Effective Use of Materials (120 minutes)

| | Resources |
|---|---------------------------------|
| <p>FACILITATOR INPUT (5 Minutes) Welcome the teachers to the Session</p> <p>Introduces the session: Share with teachers the objectives for this session using prepared Flip Chart 15.1</p> <p style="text-align: center;"><i>Prepared Flip Chart 15.1</i></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">ENHANCING USE OF MATERIALS <u>Objectives of Session 15</u></p> <p>By the end of these sessions you will have:</p> <ul style="list-style-type: none"> ▪ Increase awareness of how to effectively display materials and children’s work ▪ Increased awareness of how to enhance effective use of materials ▪ Increase awareness of how to maintain materials ▪ Increase awareness of how to store materials </div> <p>Ask teachers</p> <ul style="list-style-type: none"> ▪ Will they put out in their classrooms any materials that are donated ? ▪ Will they put out all of the materials they have all at once? ▪ How often should they change materials? <p>TEACHER INPUT Teachers respond.</p> <p>FACILITATOR INPUT (10 Minutes) Tell teachers that in this unit they will explore these and other issues relating to the use of materials.</p> <p>Display Prepared Flip Chart 15.2</p> | <p>Prepared Flip Chart 15.1</p> |

Prepared Flip Chart.15.2

QUALITY STANDARDS FOR MATERIALS

- Appropriate culturally**
- Appropriate developmentally**
- Appropriate size**
- Durable**
- Versatile**
- Sufficient quantity and variety**
- Attractive**
- Functional**
- Safe**

Prepared
Flip Chart 15.2

FACILITATOR WITH TEACHER INPUT

Ask teachers if they agreed earlier on these standards.

Teachers should confirm

Ask teachers what else will guide them in deciding which materials to display at a specific time.

Teachers give comments.

FACILITATOR INPUT (10 Minutes)

Guide teachers that it is some of the quality standards and their teaching and learning objectives and activities that should help them to decide which materials to display.

Display Prepared Flip Chart 15.3

Prepared Flip Chart.15.3

**IMPORTANT CONSIDERATIONS
IN MAKING DISPLAYS**

1. Attractive
2. Facilitates children's involvement
3. Safe to use
- 4.
- 5.
- 6.

Prepared
Flip Chart 15.3

FACILITATOR AND TEACHER INPUT

Tell the teachers that the flip chart is not complete. They are to complete it.

Ask the Teachers to discuss what they need to consider when they display learning materials in their classrooms.

As teachers respond, list their ideas.

Encourage them to discuss and even explain each of the considerations that are listed.

FACILITATOR INPUT (15 Minutes)

Display Prepared Flip Chart 15.4

Prepared Flip Chart 15.4

MAKING DISPLAYS ATTRACTIVE

1. Has Clear, Readable Lettering
2. Is Colourful
3. Use a Variety of Materials
4. Has a Decorative Boarder or Trim
- 5.
- 6.
- 7.

Prepared
Flip Chart 15.4

Tell teachers that attractive chart attract children's attention and increases their learning.

Invite teachers to discuss what makes a chart attractive. Have them add additional items listed and discuss them.

TEACHER INPUT

Teachers discuss these and other ideas of how to make displays attractive

FACILITATOR INPUT

Appreciate their good ideas.

FACILITATOR INPUT

After discussion, ask teachers what they now have learned about displaying learning materials in a classroom.

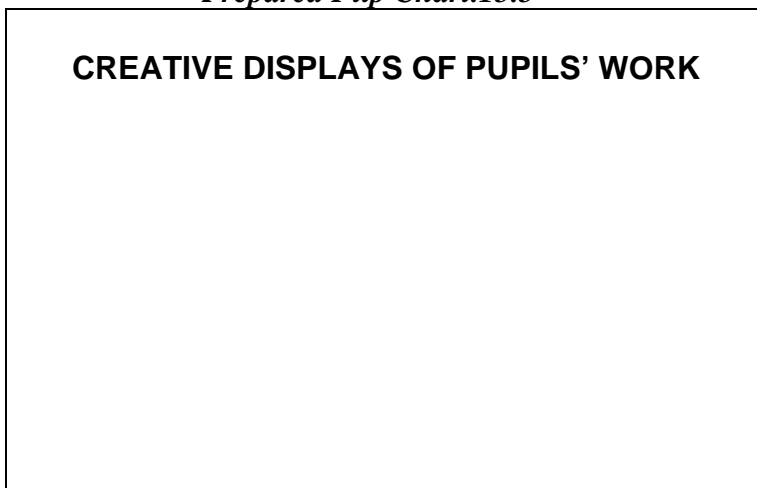
TEACHER INPUT

Teachers state and explain what they have learned.

FACILITATOR INPUT (15 Minutes)

Display Prepared Flip Chart 15.5

Prepared Flip Chart.15.5



Prepared
Flip Chart 15.4

Tell the teachers to describe some creative ways they display the children's work.

TEACHER AND FACILITATOR INPUT

Facilitator lists as teachers describe various methods they use to display the children's work.

Facilitator to draw as necessary to make the display idea clear.

FACILITATOR INPUT

Ask teachers if they have learned new ideas for displaying children's work.

Ask them also what they require to make better displays in their classrooms. Encourage them to identify what they require.

TEACHER INPUT

Indicate what they require

FACILITATOR INPUT

Encourage them to identify where they can get those things. Ask the Head Teachers to take note of them.

FACILITATOR INPUT (15 Minutes)

Display Prepared Flip Chart 15.6

Prepared Flip Chart.15.6

IDEAS FOR EFFECTIVE USE OF MATERIALS

Pupil Use

Group work

Individual Use

Teacher Use

Demonstrations

Story Time/

Book Reading

Prepared
Flip Chart 15.6

TEACHER AND FACILITATOR INPUT

Encourage teachers to describe how they effectively use specific materials in their classrooms for group work and then individual pupil use.

List their ideas.

Encourage teachers to describe how they effectively demonstrate materials and read story books in large classes.

Share additional ideas from Teachers Manual Unit 6

Ask teachers what they have learned about using materials in the classroom.

Guide them to realizing that they have to creative and attempt to work with small groups even if the class is large.

Teachers Manual
Unit 6

FACILITATOR INPUT (15 Minutes)

Display Prepared Flip Chart 15.7

Prepared Flip Chart.15.7

PREVENTING DAMAGE TO TEACHING AND LEARNING MATERIALS

| <u>Cause of Damage</u> | <u>Method of Preventing</u> |
|--------------------------------------|-----------------------------|
| 1. Termites | |
| 2. Rats | |
| 3. Dust | |
| 4. Mould | |
| 5. From others sharing the classroom | |
| 6. | |

Prepared Flip Chart 15.7

Ask teachers where they put their teaching and learning materials when they are not being used.

TEACHER AND FACILITATOR INPUT

Have them discuss what happens to them, if they are damaged and how they felt.

Ask teachers how they prevent their materials from being eaten by termites and rats.

List their methods on the right side of the flip chart.

Ask teachers how they prevent their materials from being spoiled by dust and mould.

List their methods on the right side of the flip chart.

Ask teachers how they prevent their materials from being spoiled by others who share the classroom.

List their methods on the right side of the flip chart.

If they don't mention, describe the closable, lockable shelving units and the reversible chalkboard/ chart display described in the Teacher Manual, Unit 6,

Ask teachers what else can spoil their materials.

List responses as 6. etc and what they do to preserve their material on the right.

Teachers Manual
Unit 6,

FACILITATOR INPUT (5 Minutes)

Indicate they are to explore storage of materials further in a school activity.

Have teachers sit by schools for the following activity.

ACTIVITY 15

Display Prepared Flip Chart 15.8

Prepared Flip Chart 15.8

APPROPRIATE STORAGE IDEAS

Decisions To Be Made

By Theme or By Content Area or ? Where?

Charts: Rolled or Flat or ? Where?

Small Manipulatives: In Clear Plastic Bags or Labelled Boxes or ? Where?

Equipment: In Locked Cupboard or Locked Resource Room or ? Where?

Prepared Flip Chart 15.8

Explain that in the flip chart some decisions have to be made about where materials will be stored in the school. Everyone has opinions.

Encourage teachers to discuss the various options with the other members of their schools.

They are to decide where the materials are to be kept and how they are to be protected and preserved.

TEACHER INPUT (10 Minutes)

Teachers discuss.

FACILITATOR AND TEACHER INPUT (15 Minutes)

Teachers present what their schools have decided, i.e., how their schools are going to handle the materials and equipment so they do not get damaged.

Encourage all to appreciate the strengths and weakness of various options.

Tell that they will be more informed now so that they can inform others in their schools.

CONCLUSION (5 Minutes)

FACILITATOR INPUT

Invite teachers to share what they learned in this session. Have them indicate whether it was useful.

Ask them if they now have:

- Increase awareness of how to effectively display materials and children's work
- Increased awareness of how to enhance effective use of materials
- Increase awareness of how to maintain materials
- Increase awareness of how to store materials

TEACHER INPUT

Teachers respond

FACILITATOR INPUT

Ask for, and answer, any questions.
If objectives were met, close the session.

Appreciate the good work and the sharing of ideas during the session.

TEACHER EDUCATION PROJECT IN LOW COST TEACHING AND LEARNING MATERIALS

Reviewing Teachers Manuals Session 16 (150 minutes)

Review of Teachers Manual

| | Resources |
|--|---|
| Facilitators must ensure that all of the following resources are available for this session. | <ul style="list-style-type: none">▪ Facilitators Manuals▪ Teachers Manuals▪ Blank Flip Charts▪ Flip Chart Stand▪ Masking Tape▪ Markers |

SESSION 16

Reviewing Teachers Manuals (150 minutes)

| | Resources |
|--|------------------|
| <p>FACILITATOR INPUT (60 Minutes) Welcome all of the participants to the Session.</p> <p>Discuss the purpose of the Teachers Manual</p> <p>Present the contents Unit by Unit</p> <p>Tell them that they will be using them slowly over the next few months. It is a distance learning manual.</p> <p>Call on teachers to comment on the Teachers Manuals.</p> <p>FACILITATOR AND TEACHER INPUT (25 Minutes) Call on teachers to comment on the Teachers Manuals.</p> <p>Encourage teachers to state their concerns.</p> <p>Reassure them and guide them appropriately.</p> <p>FACILITATOR INPUT Answer questions</p> <p>Clarify the role of the Head Teacher, DQASO, TAC Tutors and DICECE in assisting them in their selection and use of materials and the training manual.</p> <p>CONCLUSION</p> <p>FACILITATOR INPUT (5 Minutes) Thank the teachers their hard work.</p> <p>Answer any final questions.</p> | |

APPENDICES:

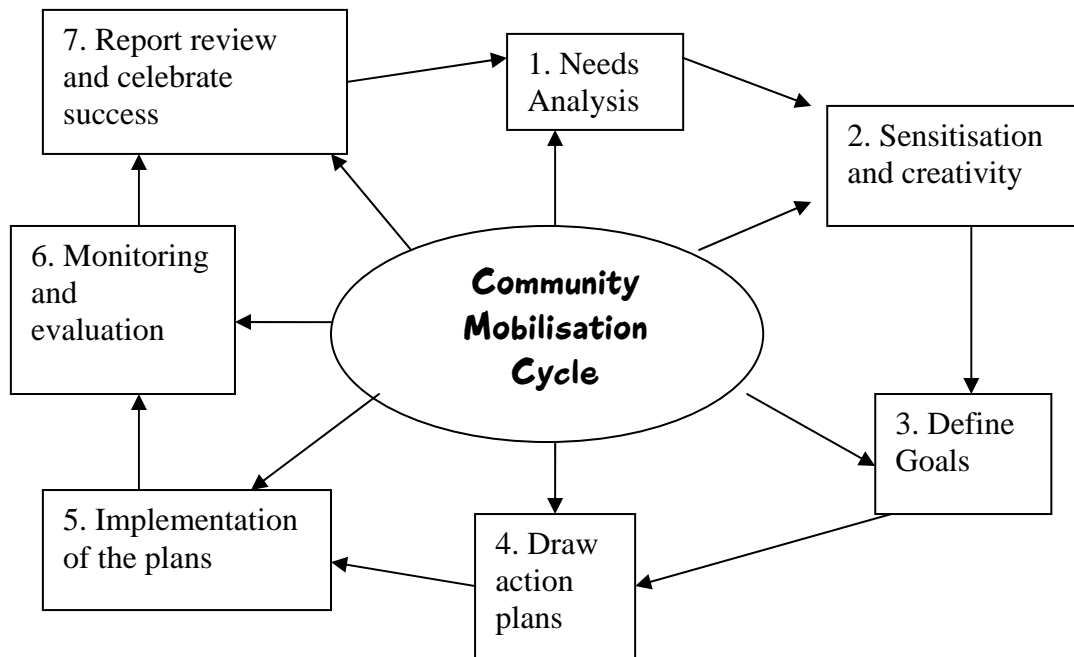
TRAINING HANDOUTS

LEARNING STYLES

| <i>How children learn</i> | <i>Activities</i> | <i>Materials that could enhance the learning</i> |
|---|-------------------|--|
| <ul style="list-style-type: none"> Doing: Children construct knowledge from their actions on objects. By doing and being actively involved in manipulating objects children become mentally involved and attentive. In addition children also improve their concentration skills and become more competent as they practice with objects. | | |
| <ul style="list-style-type: none"> Discovery and exploring: Children want to touch, shake, taste, open, throw, take apart etc. as they interact with objects on their own. Children's actions on objects encourage them to repeat pleasant experiences and to try to discover how things relate and work. As children keep persisting in finding out more from objects, they strengthen their memory and understanding. Children therefore need varied and challenging learning materials and opportunities to discover their environment | | |
| <p>Asking questions, talking and listening: Children's curiosity and desire to know leads them to ask many questions about the world around them. Teachers must support children by providing a conducive interactive learning environment. Opportunities for social interaction should be encouraged where children are free to ask questions and adults also are able to answer children questions and further challenge children's thought processes. By listening to children's questions and ideas teachers will enhance and promote children's language and social skills.</p> | | |

| | | |
|---|--|--|
| <ul style="list-style-type: none">• Imitation, role-playing: young children act or talk like adults. They play the role of an adult and can pretend to be a dog, a cook, to care or nurse a baby. Adults and older children should set good examples as role models for younger children to emulate. The way adults behave is what children copy and the impression created can have a lasting effect on the child. Teachers should make materials available for the role playing. | | |
| <ul style="list-style-type: none">• Trial and Error and practice: Opportunities should be presented in a way that the child can practice several times and become expert on that activity. Teachers should appreciate that making errors is a way of learning of children. Teachers should avoid seeking for perfect answers from children and encourage children's creative ideas as they interact with objects. | | |
| <ul style="list-style-type: none">• Learning from other children: Children are capable of learning from other children for example children can learn from siblings and playmates. When children are playing with materials they can share ideas and challenge each other for example in a game activity. Teachers should facilitate interactive learning in which children can share materials in a project or in a game. | | |

COMMUNITY MOBILISATION CYLES HANDOUT



IDENTIFYING MULTIPLE INTELLIGENCES

| | |
|--|--|
| <p>Read the Information Below. If it matches what you were like as a child write YES in the box next to it. If not at all write NO</p> | |
| <p>◆ Linguistic: enjoys reading and writing activities as well as telling and listening to stories. Communicates with others in a highly verbal way with a good vocabulary for his age.</p> | |
| <p>◆ Logical Mathematical: Asks a lot of questions about how things work and likes to do experiments in science class or in free play. Enjoys math class (or if preschool, enjoys counting and doing other things with numbers) and finds math and if exposed to computers finds computer games interesting. At free play time, enjoys putting things in categories, hierarchies, or other logical patterns.</p> | |
| <p>◆ Spatial: Enjoys looking maps, charts and figures. Daydreams a lot and doodles on workbooks or other materials. Enjoys art activities and is good at drawings. While reading, focuses meaning; builds interesting three-dimensional constructions and enjoys doing puzzles, mazes, or similar visual activities.</p> | |
| <p>◆ Bodily-Kinaesthetic: Shows physical prowess advanced for age and may excel in one or more sports. Moves, twitches, taps, or fidgets while seated for a long time in one spot. Tends to be use excessive movement: runs to class, jumps over a chair. Has good fine-motor coordination and may be good in crafts. Enjoys working with clay or other tactile experiences (e.g., finger-painting). Loves to take things apart and put them back together again.</p> | |
| <p>◆ Musical: Remembers melodies of songs and tells you when music sounds off-key or disturbing in some other way. Has a rhythmic way of speaking and/or moving. Unconsciously hums to self and taps rhythmically on the table or desk as he/she works. Is sensitive to environmental noises (e.g., rain on the roof) Responds favourably when a piece of music is put on and often has a good singing voice. Sings songs that learned outside of the classroom.</p> | |

| | |
|---|--|
| <p>◆ Interpersonal: Enjoys socializing with peers and belongs to informal peer groups (if older belongs to clubs, committees and organizations. Seems to be a natural leader and others seek out his/her company. Has a good sense of empathy or concern for others and gives advice to friends who have problems. Likes to play games with other children and enjoys informally teaching them.</p> | |
| <p>◆ Intrapersonal: Displays a sense of independence or a strong will and “marches to the beat of a different drummer” in his/her style of living and learning. Prefers working alone to working with others and doesn’t talk much about his own interests. Has a realistic sense of his/her abilities and weaknesses and has a good sense of self-direction. Is able to learn from failures and successes and usually has a good self-esteem.</p> | |
| <p>◆ Naturalist: Talks a lot about favourite animals or preferred spots in nature during class sharing and brings to school bugs, flowers, leaves, or other natural things to share with classmates or teachers. Likes field trips in nature or to the places where there are animals. Shows sensitivity to natural formations (e.g., while walking outside with the class, will notice mountains, clouds) or to physical forms of cultures (costumes, jewellery, types of buildings, etc.) Likes to care for plants or animals in the classroom. Gets excited when studying about nature, plants, or animals and enjoys doing nature projects in class. May defend animal rights and prefers science content that relation to biology and ecology and social studies content that relates to culture.</p> | |

LEARNING NEEDS OF MULTIPLE INTELLIGENCES

| PEOPLE WHO ARE HIGHLY: | THINK | LOVE | NEED |
|-------------------------------|---|---|---|
| Linguistic | in words | reading, writing, telling stories, playing word games | books, tapes, writing tools, paper, diaries, dialogue, discussion, debate, stories |
| Logical-Mathematical | by reasoning | experimenting, questioning, figuring out logical puzzles, calculating | materials to experiment with, science materials, manipulatives, trips to the planetarium and science museum |
| Spatial | in images and pictures | designing, drawing, visualizing, doodling | art, construction blocks, video, movies, slides, imagination games, mazes, puzzles, illustrated books, trips to art museums |
| Bodily-Kinaesthetic | through somatic sensations | dancing, running, jumping, building, touching, gesturing | role play, drama, movement, things to build, sports and physical games, tactile experiences, hands-on learning |
| Musical | via rhythms and melodies | singing, whistling, humming, tapping feet and hands, listening | sing-along time, trips to concerts, music playing at home and school, musical instruments |
| Interpersonal | by bouncing ideas off other people | leading, organizing, relating, manipulating, mediating, partying | friends, group games, social gatherings, community events, clubs, mentors/apprenticeships |
| Intrapersonal | in relation to their needs, feelings, and goals | Setting goals, meditating, dreaming, planning, reflecting | secret places, time alone, self-paced projects, choices |

| | | | |
|-------------------|---|---|--|
| Naturalist | through nature and natural forms | playing with pets, gardening, investigating nature, raising animals, caring for planet earth | access to nature, opportunities for interacting with animals, tools for investigating nature (e.g., magnifying glass, binoculars) |
|-------------------|---|---|--|

Activities for an Insect Theme in Standard 3 Listed by Intelligences

| Types of Intelligence | Various Types of Activities | | | | | |
|---|---|--|---|--|--|---|
| Linguistic intelligence | Naming insects | Linguistic intelligence | Naming insects | Linguistic intelligence | Naming insects | Linguistic intelligence |
| Logical – mathematical | Order insects in sizes, count legs, wings, eyes, eyelids, segments, centipedes etc. | Classify insects, separate body parts, measure segments of parts, compare body parts | Describe Insects that look like earoplanes, trains, Describe why insects floats | Collect insects, preserve insects, number insects | Compare parts of insects such as legs, wings, use hand lens to compare sizes of insects | Observe masses of insects eg, swamp of bees, the ants, grasshoppers, Brainstorm why do insects form huge masses? |
| Spatial intelligence | Tell shapes of insects, e.g. shape of housefly, caterpillar or a cockroach, some insects look like trains | Compare sizes of insects, which ones are adults and which are babies? | Where do different insects live and why? | Collect insects, identify the biggest insects and the smallest insects | Make a collection of all types of insects, group them according shapes, sizes and length | Identify insects that fly and those that move on the ground. Which ones have bigger shapes? Have them measure distances (by steps) and assess who travelled farther? Ant, bee or other? |
| Bodily Kinaesthetic intelligence | Flying like insects, chasing insects, catching insects | Group insects according to whether they fly or move on the ground. | Measure speed of insects. List things that fly like insects | Likes all types of insects. Classify them according to their speeds | Identify things that make insects move either slowly or fast | How do you explain those insect that fly and those that do not fly. Which one do you choose to fly or move on the ground. Why? |

| | | | | | | |
|-----------------------------------|--|--|---|--|---|---|
| Musical intelligence | Listen to sound made by insects and sing like them | Which insects sing louder, softly, which sounds impress you? Identify insects according to the noise they make | Listen to sounds of insects, compare them with those of various musical instruments | Compose songs using the sounds made by insects. Which insects make good songs? | Collect different types of insects, match them with their sounds and songs | Why do insects make sounds? When do they make sounds? Are these sounds good for insects? |
| Interpersonal intelligence | Name all the insects you like. Name those you don't like to play with. | Name things that are good about insects, name also things that bad about insects | Name ways in which insects are good to you. Which insects are bad to you and why? | List things to you do to insects to like. How do insects make you sick? | Collect all insects and group them according to how they are good to you | What are those things that make you like or dislike insects? Which insects are many, the ones good or those bad to you? |
| Intrapersonal intelligence | Sharing insects names, types and their habitats | Collect insects together, classify, group and compare each others collections | Work on a project of protection and preservation of insects | Learn body parts and their functions | Develop a museum for protecting insects in the classroom, develop a nature corner | Challenge each other to explain the good and bad things about insects |
| Naturalistic intelligence | Knowledge of the types of insects and their natural habitats | Collecting insects, protecting insects from harm, building cages for insects | Preserving insects, making insects traps, classifying insects | Examining insects with hand lenses, drawing parts of insects | Figuring out how insects reproduce, how they feed and types of insects foods | Uses of the different types of insects, why are insects important |